## Pharmacology Pre-Authorization Criteria

<table>
<thead>
<tr>
<th>Drug</th>
<th>Growth Hormone (somatropin)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Genotropin</td>
</tr>
<tr>
<td></td>
<td>Humatrope</td>
</tr>
<tr>
<td></td>
<td>Norditropin</td>
</tr>
<tr>
<td></td>
<td>Nutropin</td>
</tr>
<tr>
<td></td>
<td>Omnitrope</td>
</tr>
<tr>
<td></td>
<td>Saizen</td>
</tr>
<tr>
<td></td>
<td>Serostim</td>
</tr>
<tr>
<td></td>
<td>Zomacton</td>
</tr>
<tr>
<td></td>
<td>Zorbtive</td>
</tr>
</tbody>
</table>

### Policy #
21103

### Indications

- **Indicated for Growth Failure in children:** All except Serostim and Zorbtive
- **Indicated for Growth Failure associated with CKD:** Nutropin
- **Indicated for Growth Failure associated with Noonan Syndrome:** Norditropin
- **Indicated for Growth Failure associated with Prader-Willi syndrome:** Genotropin, Omnitrope
- **Indicated for Growth failure associated with SHOX deficiency:** Humatrope
- **Indicated for Growth failure associated with Turner syndrome:** Genotropin, Humatrope, Norditropin, Nutropin, Omnitrope
- **Indicated for Growth Hormone deficiency in adults:** Genotropin, Humatrope, Norditropin, Nutropin, Omnitrope
- **Indicated for Idiopathic Short Stature** (not approved by ConnectiCare): Genotropin, Humatrope, Nutropin, Omnitrope
- **Indicated for Short Bowel Syndrome:** Zorbtive
- **Indicated for Wasting or cachexia associated with HIV:** Serostim

### Criteria
ConnectiCare considers growth hormone (Norditropin for Commercial members and Freedom Formulary Members) medically necessary when the following criteria are met:

**Growth Hormone Use in Children**

- Treatment of growth hormone deficiency in children (including pituitary dwarfism as well as growth hormone deficiency following cranial irradiation), where:
  - Patient must be evaluated by a pediatric endocrinologist
  - The patient’s baseline height must be < the third percentile (i.e. >2 standard deviations below the mean for gender and age, a measure of the degree of short stature
  - Children aged <3 years must have a pretreatment growth rate of <7 cm per year, and children aged 3 years and older must have a growth rate <4 cm per year
  - The patient must have a documented growth hormone deficiency as defined by a diminished serum growth hormone response to stimulation testing of <10ng/ml. The results of two or more of the following stimulation tests are required to support the
diagnosis of growth hormone deficiency: levodopa, insulin, arginine, clonidine and glucagon.

- Note: Reauthorization is contingent upon response as shown by growth curve chart. Yearly reassessment for reauthorization of coverage is required.

- Treatment of growth delay in children with chronic renal failure, where:
  - Patient must be evaluated by a pediatric endocrinologist or nephrologist
  - Patients nutritional status has been optimized, metabolic abnormalities have been corrected, and steroid usage has been reduced to a minimum
  - Patient has growth retardation with height SDS between –2 and –3 SDS below the mean for chronological age and sex and decreased growth rate (GV measured over 1 year below 25th percentile for age and sex)
  - Growth hormone therapy is not recommended for post-transplantation.
  - Note: Reauthorization is contingent upon response as shown by growth curve chart. Yearly reassessment for reauthorization of coverage is required.

- Turner’s Syndrome:
  - Growth hormone therapy is recommended for girls with short stature associated with Turner’s syndrome, demonstrated by chromosome analysis.
  - Note: Reauthorization is contingent upon response as shown by growth curve chart. Yearly reassessment for reauthorization of coverage is required.

- Prader-Willi Syndrome:
  - Growth hormone therapy is recommended for children with growth failure associated with Prader-Willi syndrome confirmed by appropriate genetic testing.

- Growth failure with Noonan Syndrome

- Short children born small for gestational age (SGA) or with intrauterine growth retardation (IUGR) including those with Silver-Russell syndrome:
  - Patient must be evaluated by a pediatric endocrinologist
  - Patient must be ≥ 2 years of age.
  - Patient must have been born SGA, which is defined as birth weight and/or length that is >2 SD below the mean for gestational age and gender, and with failure to manifest catch up growth by age 2. (Growth charts from birth through age 2 should be submitted for evaluation.)
  - Note: Reauthorization is contingent upon response as shown by growth curve chart. Yearly reassessment for reauthorization of coverage is required.
PHARMACY PRE-AUTHORIZATION CRITERIA

Growth Hormone Use in Adults

- Treatment of growth hormone deficiency in adults (childhood or adult onset), where:
  - Patient must be evaluated by an endocrinologist
  - Patient must have a documented diagnosis of growth hormone deficiency that is one of the following:
    1. Childhood onset: or
    2. Adult onset: growth hormone deficiency alone or with multiple hormone deficiencies, such as hypopituitarism, as a result of hypothalamic or pituitary disease, radiation therapy, surgery or trauma
  - GHD has been confirmed by growth hormone stimulation tests and rule-out of other hormonal deficiency, as follows:
    1. Growth hormone response of <5 ng/mL to one growth hormone stimulation test
       Rule-out and appropriate supplementation for other hormonal deficiencies such as thyroid, cortisol or sex steroids.

- AIDS related wasting, where:
  - Patient must be HIV-positive and have wasting or cachexia;
  - Patient must have one of the following: documented, involuntary weight loss of >10% of pre-illness baseline body weight or body mass index (BMI) <20 kg/m², in the absence of a concurrent illness or medical condition other than HIV infection that would explain these findings, and who have failed to adequately respond or are intolerant to anabolic steroids (i.e. Megace).
  - Patient must have been on antiretroviral therapy for >30 days prior to beginning somatropin therapy and will continue antiretroviral therapy throughout the course of somatropin treatment.
  - Therapy with somatropin for AIDS related wasting should be limited to 24 weeks.
    (Repeat 12-24 week courses may be authorized in patients who have received a previous 12 or 24 week course of somatropin for HIV Infection with wasting or cachexia provided that they have been off somatropin for at least one month and meet the above criteria. There are no safety and efficacy data from controlled trials in patients treated with somatropin continuously for greater than 48 weeks or for patients who start, stop, and then restart treatment.)

- Short bowel syndrome, where:
  - Somatropin is recommended for adults with short bowel syndrome who are receiving specialized nutritional support (intravenous parenteral nutrition). Patient must be aged > 18 years old and therapy is limited to one 4-week course per year. Growth hormone treatment of short bowel syndrome for more than four weeks duration has not been adequately studied for this indication.
# Pharmacy Pre-Authorization Criteria

## Drug

### Growth Hormone (somatropin)

**#21103**

### Criteria

*For coverage of Genotropin, Humatrope, Nutropin, Nutropin AQ, Omnitrope, Saizen, Serostim, Zomacton and Zorbtiv for Commercial Members and Freedom Formulary Members:*

1. In addition to the above criteria, Genotropin, Humatrope, Nutropin, Nutropin AQ, Omnitrope, Saizen, Serostim, Zomacton or Zorbtive will be approved if the patient has had an intolerance to, or treatment failure of, Norditropin.

### Limitations

**Idiopathic Short Stature:**

- Idiopathic Short Stature is not considered to be medically necessary because it is not an illness, injury or disease

**Investigational/Experimental Indications**

- ConnectiCare considers growth hormone therapy for all other indications to be experimental and investigational and therefore not covered by the plan.

If the above criteria are met initial authorization is limited to 6 months. Subsequent authorization (up to 1 year) will be granted with documented efficacy. The quantity is limited to a maximum of a 30 day supply per fill.

### References

- Genotropin® [package insert]. Kalamazoo, MI: Pharmacia & Upjohn, Inc;
- Humatrope® [package insert]. Indianapolis, IN: Eli Lilly and Company;

### P&T Review History

12/04, 6/07, 6/08, 9/09, 9/10, 12/11, 10/12, 10/13, 10/14, 11/15, 2/16, 8/16, 2/17, 1/18

### Revision Record

1/14, 4/15, 1/16, 5/16, 11/16