

**GENOTROPIN (somatropin),
HUMATROPE (somatropin),
NORDITROPIN (somatropin),
OMNITROPE (somatropin),
SAIZEN (somatropin),
TEV-TROPIN (somatropin),
ZOMACTON (somatropin)**

Diagnoses Considered for Coverage:

In Adults:

- Growth Hormone Deficiency (GHD)

In Pediatrics:

- Growth Hormone Deficiency (GHD)
- Turner's Syndrome
- Growth failure due to chronic renal insufficiency (CRF) up until renal transplant
- Prader-Willi Syndrome, and Noonan's Syndrome
- Small for Gestational Age (SGA)

Criteria Coverage:

1. ADULTS: Growth hormone deficiency (GHD) WITH known pituitary disease:

Initial Authorization
<ul style="list-style-type: none"> • Drug will be given at home by patient or the patient's caregiver, and • Prescribed by an endocrinologist, and • Evidence of pituitary disease (<i>defined as cranial irradiation, MRI/CT identified lesions of pituitary area, pituitary surgery or adenoma, MRI/CT confirmation of absence/abnormality of the pituitary gland or genetic defect</i>), and • Patient has failed one adult provocative growth hormone stimulation test performed after age 18 years, and • Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, and • Dose does not exceed FDA maximum. <p><u>Coverage duration:</u> 1 year</p>
Reauthorization
<ul style="list-style-type: none"> • Drug will be given at home by patient or the patient's caregiver, and • Patient is responding to growth hormone therapy, and • Dose does not exceed FDA approved dosing for diagnosis. <p><u>Coverage duration:</u> 1 year</p>

2. ADULTS: Growth hormone deficiency (GHD) WITHOUT known pituitary disease:

Initial Authorization
<ul style="list-style-type: none"> • Drug will be given at home by patient or the patient's caregiver, and

- Prescribed by an endocrinologist, **and**
- Dose does not exceed FDA maximum, **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- One of the following:
 - For patient with **1 or 2** documented pituitary hormone deficiencies [ACTH, PRL, LH, FSH, or TSH]:
 - Currently has low IGF-I (defined as being below the mean or 50th percentile of the reference range for sex and age) , **AND** has failed 1 growth hormone stimulation test within the past year, **or**
 - For patient with **3 or more** documented pituitary hormone deficiencies [ACTH, PRL, LH, FSH, or TSH]:
 - Currently has low IGF-1 (defined as being outside of or below the 2.5th percentile of the reference range for sex and age).

Coverage duration: length of benefit

3. ADULTS: Growth hormone deficiency (GHD), continuing from childhood WITH known pituitary disease:

Initial Authorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by an endocrinologist, **and**
- Documented diagnosis of childhood GHD continuing into adulthood, **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Patient is responding to growth hormone therapy, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

4. ADULTS: Growth hormone deficiency (GHD), continuing from childhood WITHOUT known pituitary disease:

Initial Authorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by an endocrinologist, **and**
- Documented diagnosis of childhood GHD continuing into adulthood, **and**
- Patient has failed an adult provocative growth hormone stimulation test performed after 18 years of age, **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Patient is responding to growth hormone therapy, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

5. PEDIATRICS: For growth hormone deficiency (GHD) WITH known pituitary disease:**Initial Authorization**

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by a pediatric endocrinologist, **and**
- Patient has defined central nervous system (CNS) disease (e.g. CNS lesion), history of irradiation, multiple pituitary hormonal deficiencies, or genetic defect affecting the growth hormone axis, **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Patient has slowing in growth velocity, **and**
- Patient failed 1 standard growth hormone provocative test (defined as a peak growth hormone level < 10ng/ml) done within 1 year prior to starting growth hormone therapy, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Patient is responding to growth hormone therapy, **and**
- Dose does not exceed FDA maximum, **and**

Coverage duration: 1 year

6. PEDIATRICS: For growth hormone deficiency (GHD) WITHOUT known pituitary disease:**Initial Authorization**

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by a pediatric endocrinologist, **and**
- Patient's height must be 2 or more standard deviations below the mean (less than the 3rd percentile) for age and sex prior to growth hormone therapy, **and**
- Height Velocity is less than 10th percentile of normal for age and sex, tracked over at least one year prior to growth hormone therapy (see chart below), **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Dose does not exceed FDA maximum, **and**
- One of the following:
 - Failure of at least 2 standard growth hormone provocative tests (defined as a peak growth hormone level < 10ng/ml) done within 1 year prior to initiating GH therapy, with peak value assessed using more than one point in time (e.g. 0, 30, 60, 90, 120 minutes), **or**
 - One low insulin-like growth factor (IGF-1) test AND failure of one standard GH provocative test.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Patient has a growth velocity of at least 3 cm/year while on growth hormone, **and**
- Dose does not exceed FDA maximum, **and**

Coverage duration: 1 year

7. PEDIATRICS: For Turner's, CRF, Prader-Willi, or Noonan's Syndrome:

Initial Authorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by a pediatric endocrinologist (*does not apply if diagnosis is CRF*), **and**
- *For chronic renal insufficiency only:* GFR < 50 ml/min, **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Dose does not exceed FDA maximum, **and**
- One of the following:
 - Patient has Turner's Prader-Willi, or Noonan's Syndrome, has no side effects to growth hormone, and is compliant with drug therapy, **or**
 - Patient has CRF and did not receive a kidney transplant within the past year

Coverage duration: 1 year

8. PEDIATRICS: For Small for Gestational Age (SGA):

Initial Authorization

- Drug will be given at home by patient or the patient's caregiver, **and**
- Prescribed by a pediatric endocrinologist, **and**
- Patient's length at birth or birth weight must be 2 or more standard deviations below the mean (less than the 3rd percentile) for gestational age (adjusted for prematurity), **and**
- Patient's height is 2 or more standard deviations below the mean (less than the 3rd percentile) at 2 years of age (boys 80-81cm; girls 79-80cm), **and**
- Intolerance or contraindication to either Nutropin or Nutropin AQ that is not expected with the requested drug, **and**
- Dose does not exceed FDA maximum.

Coverage duration: 1 year

Reauthorization

- Drug will be given at home by patient or the patient's caregiver, **and**

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| <ul style="list-style-type: none">• Patient has a growth velocity of ≥ 3 cm/year while on growth hormone, and• Dose does not exceed FDA maximum. |
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Coverage duration: 1 year

Coverage Duration: see above

Effective: 4/01/2016