



Horizon BCBSNJ
 Medical Necessity Guideline

Section	Drugs
Policy Number	
Effective Date	6/27/04
Review Date	5/27/05, 8/23/07, 12/22/08, 10/13/09

DRUG CLASS **Growth Hormones**

BRAND NAME **Growth Hormone (GH)**

(Generic) **Genotropin (all injectable)
(somatropin)**

**Humatrope (all injectable)
(somatropin)**

**Norditropin (all injectable)
(somatropin)**

**Nutropin AQ (all injectable)
(somatropin)**

**Nutropin (all injectable)
(somatropin)**

**Nutropin Depot (all injectable)
(somatropin)**

**Protropin (all injectable)
(somatrem)**

**Saizen (all injectable)
(somatropin)**

IMPORTANT NOTE:

*The purpose of this policy is to provide general information applicable to the administration of outpatient prescription drug benefits that Horizon Blue Cross Blue Shield of New Jersey and Horizon Healthcare of New Jersey, Inc. (collectively "Horizon BCBSNJ") insures or administers. **Outpatient prescription drugs are not covered under all Horizon benefit plans.** If the member's contract benefits differ from the pharmacy guideline, the contract prevails. Although a service, supply drug or procedure may be medically necessary, it may be subject to limitations and/or exclusions under a member's benefit plan. If a service, supply drug or procedure is not covered and the member proceeds to obtain the service, supply drug or procedure, the member may be responsible for the cost. Decisions regarding treatment and treatment plans are the responsibility of the physician. This policy is not intended to direct the course of clinical care a physician provides to a member, and it does not replace a physician's or pharmacist's independent professional clinical judgment or duty to exercise special knowledge and skill in the treatment of Horizon BCBSNJ members. Horizon BCBSNJ is not responsible for, does not provide, and does not hold*

itself out as a provider of medical care. The physician remains responsible for the quality and type of health care services provided to a Horizon BCBSNJ member.

Horizon BCBSNJ pharmacy guidelines do not constitute medical advice, authorization, certification, approval, explanation of benefits, offer of coverage, contract or guarantee of payment.

FDA-APPROVED INDICATIONS

Genotropin:

Genotropin is indicated for:

- Long-term treatment of pediatric patients who have growth failure due to an inadequate secretion of endogenous growth hormone
- Long-term treatment of pediatric patients with Prader-Willi Syndrome. The diagnosis of Prader-Willi Syndrome should be confirmed by appropriate genetic testing
- Long-term treatment of growth failure in children born small for gestational age (SGA) who fail to manifest catch-up growth by age two years.
- Long-term replacement therapy in adults with growth hormone deficiency (GHD) of either childhood- or adult-onset etiology.

GHD should be confirmed by an appropriate growth hormone stimulation test. Other causes of short stature in pediatric patients should be excluded.

Humatrope:

Pediatric patients

Humatrope is indicated for the long-term treatment of pediatric patients who have growth failure due to an inadequate secretion of normal endogenous growth hormone.

Humatrope is indicated for the treatment of short stature associated with Turner's syndrome in patients whose epiphyses are not closed.

Adult patients

Humatrope is indicated for replacement of endogenous growth hormone in adults with growth hormone deficiency who meet both of the following two criteria:

- Adult Onset: Patients who have growth hormone deficiency either alone or with multiple hormone deficiencies (hypopituitarism), as a result of pituitary disease, hypothalamic disease, surgery, radiation therapy, or trauma;
- Childhood onset: Patients who were growth hormone deficient during childhood who have growth hormone deficiency confirmed as an adult before replacement therapy with Humatrope is started.

Norditropin:

Norditropin is indicated for the long-term treatment of children with growth failure due to inadequate secretion of endogenous growth hormone, short stature associated with Noonan syndrome, short stature due to Turner syndrome, and short stature in children born small for gestational age (SGA) with no catch-up growth by age 2-4 years.

Adult Patients

Norditropin is indicated for replacement of endogenous GH in adults with GHD who meet either of the following two criteria:

- Adult Onset: Patients who have GHD either alone, or associated with multiple hormone deficiencies (hypopituitarism) as a result of pituitary disease, hypothalamic disease, surgery radiation therapy or trauma; or
- Childhood Onset: Patients who were GHD during childhood should have GHD confirmed as an adult before replacement therapy with Norditropin is started.

In both of these patient populations, GHD should be confirmed by an appropriate GH stimulation test.

Nutropin/Nutropin AQ:

Pediatric Patients:

Nutropin and Nutropin AQ are indicated for the long-term treatment of growth failure due to a lack of adequate endogenous GH secretion.

Nutropin and Nutropin AQ are also indicated for the treatment of growth failure associated with chronic renal insufficiency up to the time of renal transplantation. Nutropin or Nutropin AQ therapy should be used in conjunction with optimal management of chronic renal insufficiency.

Nutropin and Nutropin AQ are also indicated for the long-term treatment of short stature associated with Turner syndrome.

Adult Patients

Nutropin and Nutropin AQ are indicated for the replacement of endogenous GH in patients with adult GH deficiency who meet both of the following two criteria:

- Biochemical diagnosis of adult GH deficiency by means of a subnormal response to a standard growth hormone stimulation test (peak GH less than or equal to 5 mcg/L), and
- Adult-onset: Patients who have adult GH deficiency either alone or with multiple hormone deficiencies (hypopituitarism) as a result of pituitary disease, hypothalamic disease, surgery, radiation therapy, or trauma; or childhood-onset: Patients who were GH deficient during childhood, confirmed as an adult before replacement therapy with Nutropin and Nutropin AQ is started.

Nutropin Depot:

Nutropin Depot for is indicated for the long-term treatment of growth failure due to lack of adequate endogenous GH secretion.

Considerations for Use:

As with any GH treatment, patients should be monitored closely throughout therapy for growth response to Nutropin Depot. Failure to respond adequately requires careful assessment. Patients for whom no discernible cause is found should be considered for a course of treatment with a daily form of rhGH. Experience in patients who were treated with daily GH and switched to Nutropin Depot is limited.

Protropin:

Protropin (somatrem) is indicated only for the long-term treatment of children who have growth failure due to a lack of adequate endogenous growth hormone secretion. Other etiologies of short stature should be excluded.

Saizen:

Saizen [somatotropin (rDNA origin)] is indicated for the long-term treatment of children with growth failure due to inadequate secretion of endogenous growth hormone.

Serostim is not approved for the treatment of growth hormone deficiency.

Horizon does not cover growth hormone for the following indications:

- **Treatment for children with idiopathic or non-growth hormone deficient short stature, defined as > 2.25 standard deviation below the mean height for age and sex;**
- **Treatment for children born small for gestational age (SGA) who failed to catch up growth by age 2; OR**
- **Treatment for adults with adult-onset isolated growth hormone deficiency**

CRITERIA FOR APPROVAL

- | | | |
|--|-----|----|
| 1. Does the patient have any of the following contraindications to GH: <ul style="list-style-type: none">• acute critical illness due to complications following open heart surgery, abdominal surgery, multiple accidental trauma, or acute respiratory failure.• an active neoplasia or tumor activity.• proliferative or preproliferative diabetic retinopathy [If the answer to this question is yes, then no further questions required.] | Yes | No |
| 2. Is the growth hormone being prescribed for the promotion of wound healing due to life-threatening third (3 rd) degree burns?
[If the answer to this question is yes, then no further questions required.] | Yes | No |

3. Is the patient >18 years of age or has closed or fused epiphyses? [If the answer to this question is yes, then may skip to question 21.]	Yes	No
4. Does the patient have the diagnosis of Prader-Willi Syndrome confirmed by appropriate genetic testing? [If the answer to this question is no, then may skip to question 6.]	Yes	No
5. Is the patient severely obese or has a history of severe respiratory impairment? [If the answer to this question is yes, no further questions required.] [If the answer to this question is no, may skip to question 11]	Yes	No
6. Is the patient female and has the diagnosis of Turner syndrome confirmed by appropriate genetic testing? [If the answer to this question is no, then skip to question 8.]	Yes	No
7. At the initiation of therapy, did the patient have a height that is less than the 5 th percentile for normal children the same chronological age and gender, or the mid-parental target height? [If the answer to this question is yes, may skip to question 11.] [If the answer to this question is no, no further questions required]	Yes	No
8. Does the patient have the diagnosis of chronic renal insufficiency or chronic renal failure? [If the answer to this question is no, then may skip to question 10.]	Yes	No
9. At the initiation of therapy, did the patient have a height that is less than the 3 rd percentile for normal children the same chronological age and gender? (Equivalent to more than 2.5 standard deviations below the mean for normal children of the same age) [If the answer to this question is yes, may skip to question 11] [If the answer to this question is no, no further questions required]	Yes	No
10. Does the patient have either: <ul style="list-style-type: none"> • a diagnosis of short stature homeobox-containing gene (SHOX) deficiency confirmed by appropriate genetic testing? • a diagnosis of Noonan's Syndrome confirmed by appropriate genetic testing? [If the answer to this question is no, may skip to question 12]	Yes	No
11. Has the patient received at least 6 months of therapy as a Caremark administered benefit? [If the answer to this question is yes, skip to question 20.] [If the answer to this question is no, then skip to question 27]	Yes	No
12. Does the patient have a diagnosis of growth hormone deficiency? [If the answer to this question is no, then may skip to question 19.]	Yes	No
13. Has the patient received at least 6 months of therapy as a Caremark administered benefit? [If the answer to this question is yes, then skip to question 20.]	Yes	No
14. Does the patient have evidence of another pituitary hormone deficiency or has received a treatment known to cause GH deficiency? [If the answer to this question is yes, may skip to question 17.]	Yes	No
15. Does the patient have a height that is ≥ 2 standard deviations below the mean for normal children of the same chronological age and gender?	Yes	No
16. Does the patient have a delayed bone age that is ≥ 2 standard deviations below the mean for normal children of the same chronological age and gender?	Yes	No
17. Has the patient experienced a poor growth velocity defined as less than 7 cm per year for children before the age of 3 years or less than 5 cm per year for children 3 years of age or older?	Yes	No

(Equivalent to more than 1 standard deviation below the mean for normal children of the same age)

18. Has the patient had either of the following evaluation results:
- failed at least two growth hormone (GH) stimulation tests (A failure is generally defined as a peak serum growth hormone value of less than 10 mcg/L after GH stimulation.)
 - the patient had at least one growth hormone stimulation test level < 15mcg/L and IGF-1 and IGFBP3 levels below normal for normal children of the same chronological age and gender
- Yes No
- [If yes, then go to question 27]
[If no further questions required.]
19. Does the patient have a diagnosis of small for gestational age (SGA) and have:
- a birth weight and/or length 2 standard deviations (SD) or more below mean for gestational age
 - the patient is 2 years of age or older and has failed to catch up (height 2SD or more below mean for age and sex or mid-parental target height)
- Yes No
- [If the answer to this question is no, no further questions required]
20. Does the patient have any of the following:
- growth velocity of the patient less than 2 cm per year
 - the height of the patient reached the 5th percentile of the mid-parental target height for children of same chronological age and gender
- [If yes, no further questions required]
[If no, then go to question 27]
21. Is the patient an adult that has a diagnosis of documented growth hormone deficiency secondary to any of the following:
- pituitary surgery related panhypopituitarism
 - trauma related panhypopituitarism
 - cranial irradiation related panhypopituitarism
- Yes No
- [If the answer to this question is yes, then no further questions required.]
22. Does the patient have a documented childhood-onset growth hormone deficiency? Yes No
23. Has the patient received at least 6 months of therapy as **AN ADULT** (\geq 18 years old) as a Caremark administered benefit? Yes No
- [If the answer to this question is yes, then no further questions required.]
24. Has the patient achieved both:
- documented growth hormone replacement therapy with achievement of adult height
 - the patient has completed linear growth
- Yes No
25. Was the patient off therapy for at least 1 month since receiving growth hormone as a child? Yes No
26. After being off growth hormone for at least 1 month, has the patient failed at least one growth hormone (GH) stimulation tests? Yes No
- [A failure is generally defined as a maximum peak of less than 5 mcg/L when measured by RIA (polyclonal antibody), less than 3.5 mcg/L when measured by IRMA (monoclonal antibody) or less than 3 mcg/L during hypoglycemia.]
27. Is the patient a female \geq 14 years old or a male \geq 16 years old? Yes No

Guidelines for Approval

Duration of Approval		12 months			
Set 1 – Prader Willi - Initial		Set 2 – Prader Willi - Renewal		Set 3 – Turner’s - Initial	
Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)
4	1	4	1	6	1

	4		4				
	6		6				
	8		8				
	11		20				
	27		27				

Guidelines for Approval					
Duration of Approval			3 months		
Set 17 – Prader Willi - Initial		Set 18 – Prader Willi - Renewal		Set 19 – Turner’s - Initial	
Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)
4	1	4	1	6	1
27	2	11	2	7	2
	3	27	3	27	3
	5		5		4
	11		20		11
Set 20 – Turner’s – Renewal		Set 21 – CRF – Initial		Set 22 – CRF– Renewal	
Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)
6	1	8	1	8	1
7	2	9	2	9	2
11	3	27	3	11	3
27	4		4	27	4
	20		6		6
			11		20
Set 23 – Child GHD – Initial		Set 24 – Child GHD – Initial		Set 25 – Child GHD – Renewal	
Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)
12	1	12	1	12	1
14	2	15	2	13	2
17	3	16	3	27	3
18	4	17	4		4
27	6	18	6		6
	8	27	8		8
	10		10		10
	13		13		20
			14		
Set 26 – SGA					
Yes to question(s)		No to question(s)			
19		1			
27		2			
		3			
		4			
		6			
		8			
		10			

		12					
		20					
Set 27 – SHOX/Noon Initial		Set 28 – SHOX/Noon Renewal					
Yes to question(s)	No to question(s)	Yes to question(s)	No to question(s)				
10	1	10	1				
27	2	11	2				
	3	27	3				
	4		4				
	6		6				
	8		8				
	11		20				

Horizon BCBSNJ Pharmacy Guideline Development Process: This Horizon BCBSNJ Pharmacy Guideline (the “Pharmacy Guideline”) has been developed by Horizon BCBSNJ’s Pharmacy Drug Policy Subcommittee, Clinical Issues Subcommittee, and Quality Improvement Committee which include practicing physicians and pharmacists. This guideline is consistent with generally accepted standards of medical and pharmacy practice, and reflects Horizon BCBSNJ’s view of the subject health care services, supplies drugs or procedures, and in what circumstances they are deemed to be medically necessary or experimental/ investigational in nature. This Pharmacy Guideline also considers whether and to what degree the subject health care services, supplies or procedures are clinically appropriate, in terms of type, frequency, extent, site and duration and if they are considered effective for the illnesses, injuries or diseases discussed. Where relevant, this Pharmacy Guideline considers whether the subject prescription drugs are being requested primarily for the convenience of the covered person or the health care provider. It may also consider whether the prescription drugs are more costly than alternative prescription drugs that are at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the relevant illness, injury or disease. In reaching its conclusion regarding what it considers to be the generally accepted standards of medical and pharmacy practice, Horizon BCBSNJ reviews and considers the following: all credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, physician and health care provider specialty society recommendations, the views of physicians and health care providers practicing in relevant clinical areas (including, but not limited to, the prevailing opinion within the appropriate specialty), the findings and directives of the Food and Drug Administration and any other relevant factor as determined by applicable State and Federal laws and regulations.

BLACK BOX WARNINGS
None

RATIONALE

The intent of the criteria is to ensure that patients follow selection elements established by Horizon BCBS New Jersey’s medical policies.

REFERENCES

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