BOSTON MEDICAL CENTER HEALTHNet PLAN

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Pharmacy Medical Necessity Policy

Growth Hormone Agents – Unified Formulary

Policy Number: 9.334
Version Number: 2.1
Version Effective Date: 1/1/2022

Product Applicability	☐ **All Plan+ Products**
Well Sense Health Plan ☐ New Hampshire Medicaid	**Boston Medical Center HealthNet Plan** ☒ MassHealth ACO ☒ MassHealth MCO ☐ Qualified Health Plans/ConnectorCare/Employer Choice Direct ☐ Senior Care Options
Benefit	☒ Pharmacy Benefit ☐ Medical Benefit

Note: Disclaimer and audit information is located at the end of this document.

Product formulations may differ by FDA-approved indications and individual product characteristics, but all formulations are generally considered to be interchangeable when used in practice.

+ *Plan* refers to Boston Medical Center Health Plan, Inc. and its affiliates and subsidiaries offering health coverage plans to enrolled members. The Plan operates in Massachusetts under the trade name Boston Medical Center HealthNet Plan and in other states under the trade name Well Sense Health Plan.

Prior Authorization Policy

Reference Table:

Drugs that require PA	No PA
Genotropin® (somatropin)[PD]	
Humatrope® (somatropin)	
Norditropin® (somatropin)	
Nutropin AQ® (somatropin)	
Omnitrope® (somatropin)	
Saizen® (somatropin)	
Serostim® (somatropin)	
Zomacton® (somatropin)	
Zorbtive® (somatropin)	

[PD] Preferred Drug. In general, a trial of the preferred drug or clinical rationale for prescribing a non-preferred drug within a therapeutic class is required.

Initial Approval Criteria:

Pediatric growth hormone deficiency or panhypopituitarism	1. Member is less than 18 years of age; **AND** 2. Member has a documented diagnosis of growth hormone deficiency or panhypopituitarism; **AND** 3. Documentation of short stature or growth failure, documented by **ONE** of the following: a. Pre-treatment height less than -2 standard deviations below mean or below 3rd percentile on standard pediatric growth chart; **OR** b. Height dropping below initial percentile curve on standard pediatric growth chart when monitored over 1 year; **OR** c. Growth velocity below the 10th percentile for age and gender as defined by **ONE** of the following: i. In members age two to four years: Less than 5.5 cm per year (less than 2.2 inches per year) ii. In members age four to six years: Less than 5 cm per year (less than 2 inches per year) iii. In female members age six years to puberty: Less than 4.5 cm per year (less than 1.8 inches per year) iv. In male members age six years to puberty: Less than 4 cm per year (less than 1.6 inches per year) **AND** 4. Documentation of **ONE** of the following: a. Results of two abnormal tests, which can be either: i. Two abnormal growth hormone stimulation tests; **OR** ii. One abnormal stimulation test and one abnormal IGF-1/IGFBP-3 level; **OR** b. One abnormal test (growth hormone stimulation, IGF-1, or

	IGFBP-3 test), with either: i. Abnormal pituitary imaging; **OR** ii. Deficiency of at least three other pituitary hormones (TSH, ACTH, LH, FSH, or AVP/ADH); **OR** iii. Appropriate current medication claims suggesting deficiency of at least three other pituitary hormone (levothyroxine, hydrocortisone or other glucocorticoid, testosterone [for males] or estrogen/progesterone [for females], or desmopressin) **AND** 5. Documentation of **ONE** of the following: a. Member is under the care of an endocrinologist; **OR** b. Other possible causes of short stature or growth failure have been ruled out (e.g., hypothyroidism, malnutrition, chronic illness, skeletal disorders, pituitary tumor) **AND** 6. **Requests for all agents other than Genotropin®**: Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Pediatric hypoglycemia due to growth hormone deficiency	1. The member is less than 18 years of age; **AND** 2. Documented diagnosis of hypoglycemia due to growth hormone deficiency; **AND** 3. Documentation of laboratory results indicating growth hormone deficiency defined as at least one abnormal growth hormone stimulation test; **AND** 4. Documentation of hypoglycemia-symptoms and low glucose level (lower end of normal range is 75 mg/dL [4.2 mM/L]) ; **AND** 5. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Noonan, Prader-Willi, or Turner syndrome	1. The member is less than 18 years of age; **AND** 2. Documented diagnosis of short stature or growth failure due to Noonan syndrome, Prader-Willi syndrome, or Turner syndrome; **AND** 3. Documentation of short stature or growth failure, defined by **ONE** of the following: a. Pre-treatment height less than -2 standard deviations below mean or below 3rd percentile on standard pediatric growth chart; **OR** b. Height dropping below initial percentile curve on standard pediatric growth chart when monitored over 1 year; **OR**

	c. Growth velocity below the 10th percentile for age and gender as defined by **ONE** of the following: i. In members age two to four years: Less than 5.5 cm per year (less than 2.2 inches per year) ii. In members age four to six years: Less than 5 cm per year (less than 2 inches per year) iii. In female members age six years to puberty: Less than 4.5 cm per year (less than 1.8 inches per year) iv. In male members age six years to puberty: Less than 4 cm per year (less than 1.6 inches per year) **AND** 4. Documentation of **ONE** of the following: a. Genetic testing confirming diagnosis; **OR** b. Appropriate clinical rationale for why genetic testing cannot be provided (e.g., member is new to prescriber and current prescriber has no means of obtaining labs used for diagnosis, diagnosis made many years ago) **AND** 5. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Chronic renal failure up to time of renal transplantation	1. Member is less than 18 years of age; **AND** 2. Documented diagnosis of short stature or growth failure due to chronic renal failure up to time of renal transplantation; **AND** 3. Member has a short stature or growth failure, documented by one of the following: a. Pre-treatment height less than -2 standard deviations below mean or below 3rd percentile on standard pediatric growth chart; **OR** b. Height dropping below initial percentile curve on standard pediatric growth chart when monitored over 1 year; **OR** c. Growth velocity below the 10th percentile for age and gender as defined by **ONE** of the following: i. In members age two to four years: Less than 5.5 cm per year (less than 2.2 inches per year) ii. In members age four to six years: Less than 5 cm per year (less than 2 inches per year) iii. In female members age six years to puberty: Less than 4.5 cm per year (less than 1.8 inches per year) iv. In male members age six years to puberty: Less than 4 cm per year (less than 1.6 inches per year) **AND** 4. The prescriber has provided documentation of **ONE** of the

	following: a. Other chronic renal failure-associated etiologies have been excluded (e.g., acidosis, secondary hyperparathyroidism, malnutrition, or zinc deficiency); **OR** b. Member is under the care of a renal specialist **AND** 5. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Small for gestational age/Intrauterine growth restriction (SGA/IUGR) with failed catch-up growth between age 2 to 4	1. Member is less than 18 years of age; **AND** 2. Documented diagnosis of short stature or growth failure due to small for gestational age/intrauterine growth restriction with failed catch-up growth by age 2 to 4; **AND** 3. Member is years of age or older; **AND** 4. Documentation of short stature or growth failure, defined by **ONE** of the following: a. Pre-treatment height less than -2 standard deviations below mean or below 3rd percentile on standard pediatric growth chart; **OR** b. Height dropping below initial percentile curve on standard pediatric growth chart when monitored over 1 year; **OR** c. Growth velocity below the 10th percentile for age and gender as defined by **ONE** of the following: i. In members age two to four years: Less than 5.5 cm per year (less than 2.2 inches per year) ii. In members age four to six years: Less than 5 cm per year (less than 2 inches per year) iii. In female members age six years to puberty: Less than 4.5 cm per year (less than 1.8 inches per year) iv. In male members age six years to puberty: Less than 4 cm per year (less than 1.6 inches per year) **AND** 5. Documented diagnosis small for gestational age/intrauterine growth restriction, defined by **ONE** of the following: a. Birth weight less than -2 standard deviations below mean or below 3rd percentile for gestational age; **OR** b. Birth length less than -2 standard deviations below mean or below 3rd percentile for gestational age **AND** 6. Documentation of catch-up growth not achieved between the ages of 2 to 4 years defined by **BOTH** of the following: a. At least one height measurement less than -2 standard deviations below mean or below 3rd percentile from age 2 to

	4 years; **OR** b. Member does not have evidence of consistent catch-up growth, defined as either of the following: i. From age two to current age (or age four, whichever is less), no consecutive years with height measurements greater than -2 standard deviations below mean or greater than 3rd percentile **AND** 7. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Adult growth hormone deficiency or panhypopituitarism	1. Member is 18 year of age or older; **AND** 2. Documented diagnosis of growth hormone deficiency or panhypopituitarism; **AND** 3. Documentation of **ONE** of the following: a. Results of two abnormal tests, which can be either: i. Two abnormal growth hormone stimulation tests; **OR** ii. One abnormal stimulation test and one abnormal IGF-1/IGFBP-3 level; **OR** b. **ONE** abnormal test (growth hormone stimulation, IGF-1, or IGFBP-3 test), with either: i. Abnormal pituitary imaging; **OR** ii. Deficiency of at least three other pituitary hormones (TSH, ACTH, LH, FSH, or AVP/ADH); **OR** iii. Appropriate current medication claims suggesting deficiency of at least three other pituitary hormones (levothyroxine, hydrocortisone or other glucocorticoid, testosterone [for males] or estrogen/progesterone [for females], desmopressin) **AND** 4. Documentation of at least **ONE** symptom consistent with growth hormone deficiency (e.g., increased fat mass and reduced lean body mass, reduced extracellular volume, reduced bone mineral content and density, elevated cholesterol, diminished renal function without other etiology, congestive heart failure[CHF], reduced exercise capacity, impaired quality of life-Quality of Live-Assessment of growth Hormone Deficiency in Adults); **AND** 5. **Requests for all agents other than Genotropin®:** prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
HIV/AIDS-associated	1. Documented diagnosis of HIV/AIDS-associated wasting or cachexia;

wasting or cachexia	**AND** 2. Documentation member is receiving concurrent antiretroviral therapy; **AND** 3. Documentation of evidence of wasting, as indicated by any of the following: a. An involuntary loss of at least 10% of body weight within one year b. An involuntary loss of at least 7.5% of body weight within six months c. A reduction in lean body mass (measured via bioelectrical impedance assay or BIA) d. BMI < 20 kg/m^2 **AND** 4. Documentation the member has had a trial of an FDA-approved appetite stimulant (e.g., dronabinol, megestrol acetate oral suspension); **AND** 5. Documentation of **ONE** of the following: a. Other causes of weight loss have been ruled out (e.g., gastrointestinal tract opportunistic infections; decrease in food intake due to oral, pharyngeal, esophageal lesions or candidiasis; gonadal dysfunction; adverse effects due to medications; or psychosocial factors); **OR** b. Member is under the care of an Infectious Disease specialist **AND** 6. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Adult Short Bowel Syndrome (SBS)	1. Documented diagnosis of short bowel syndrome; **AND** 2. Member is 18 years of age or older; **AND** 3. **Requests for all agents other than Genotropin®:** Prescriber provides clinical rationale for use of the requested agent instead of Genotropin®
Duration of Initial Authorization:	Short Bowel Syndrome: **up to 4 weeks** Adult GHD: **up to 1 year** All other indications: **up to 6 months**

Recertification Approval Criteria:

Pediatric Requests	1. Member is under the age of 18; **AND** 2. Member has diagnosis of **ONE** of the following: a. Growth hormone deficiency; **OR** b. Small for gestational age/intrauterine growth restriction (SGA/IUGR) with failed catch-up growth by

	age 2 to 4; OR c. Noonan Syndrome; **OR** d. Turner Syndrome; **OR** e. Prader-Willi Syndrome (PWS) **AND** 7. Member's epiphyses are not fused; **AND** 8. Documentation that the member's measured growth velocity is at least 2.5 cm per year
Adult Requests	1. Member is 18 years of age or older; **AND** 2. Member has **ONE** of the following: a. Diagnosis of growth hormone deficiency or panhypopituitarism; **AND** i. Documentation of appropriate IGF-1 or IGFBP-3 levels (within lab-specific reference range; **OR** b. Diagnosis of HIV/AIDS-associated wasting or cachexia; **AND** i. Documented clinical response to treatment
Duration of Recertification Authorization:	Adult GHD: **up to 1 year** All other indications: **up to 6 months**

Appendix:

Clinical Rationale for Non-preferred Growth Hormone Products

Clinical rationale should be evaluated based upon the information outlined below. Other examples of clinical rationale should be evaluated case by case.

In addition, if a prescriber documents that a member has a condition that may present a barrier to adopting a new preferred growth hormone agent (learning disability without a care giver present, dementia, obsessive compulsive disorder); this should be taken into consideration. A **three month approval** can be granted to allow members to be trained on how to use a preferred growth hormone agent. The following sentence should be included in the outgoing messaging of these approvals:

"A short term approval is granted to allow for the member to be trained on the preferred growth hormone agent."

Considerations for clinical rationale for a non-preferred growth hormone agent may include:

- Product-specific adverse reactions (such as injection site reactions) – may be **approved**.
- Hypersensitivity to components of the preferred agent

- Genotropin® MiniQuick® is a preservative-free formulation, and may be an option for a member requiring a preservative free formulation.

- Inability to administer at recommended dosing frequency – preference for less frequent dosing is not rationale to bypass medical necessity for a non-preferred agent
- Inability to administer due to injection volume
  - After reconstitution, each Genotropin® MiniQuick® (available as 0.2 mg, 0.4 mg, 0.6 mg, 0.8 mg, 1.0 mg, 1.2 mg, 1.4 mg, 1.6 mg, 1.8 mg and 2.0 mg cartridges) delivers 0.25 mL, regardless of strength. The reconstituted Genotropin® cartridge concentrations are 5 mg/mL and 12 mg/mL.
  - The concentrations of alternative growth hormone agents after reconstitution vary and dosing is dependent upon the indication. Difficulty with administration due to injection volume will be evaluated on a case by case basis, taking into consideration the difference in injection volume between the agents.
- Non-preferred growth hormone agents with additional FDA-approved indications
  - Based on the interchangeability of the growth hormone agents in practice, lack of FDA-approval of the preferred growth hormone agent for any indication is NOT rationale to bypass medical necessity for a non-preferred growth hormone product. Additionally, stability on a non-preferred agent is NOT rationale to bypass clinical rationale for use over the preferred agent.

Growth rate references:

Small for gestational age (SGA) with failed catch up growth between ages 2 to 4:

Values that fall -2 SD for birth weight and birth length vs. gestational age

Gestational Age (weeks)	-2 SD from mean for birth weight		-2 SD from mean for birth length	
	In grams	In pounds	In centimeters	In inches
25	650	1.43	31.6	12.4
26	703	1.55	32.6	12.8
27	746	1.64	33.5	13.2
28	813	1.79	34.5	13.6
29	898	1.98	35.6	14.0
30	1023	2.26	36.6	14.4
31	1140	2.51	37.8	14.9
32	1277	2.82	39.0	15.4
33	1400	3.09	40.3	15.9
34	1553	3.42	41.5	16.3
35	1717	3.79	42.7	16.8
36	1889	4.16	43.8	17.2
37	2118	4.67	45.0	17.7
38	2333	5.14	46.1	18.1
39	2500	5.51	47.0	18.5

Gestational Age (weeks)	-2 SD from mean for birth weight		-2 SD from mean for birth length	
	In grams	In pounds	In centimeters	In inches
40	2560	5.64	47.4	18.7
41	2617	5.77	47.9	18.9
42	2553	5.63	47.7	18.8
43	2446	5.39	47.5	18.7
44	2414	5.32	47.2	18.6

Pediatric Growth Charts – available at http://www.cdc.gov/growthcharts/cdc_charts.htm

Original Approval Date	Original Effective Date	Policy Owner	Approved by
12/1/2020	1/1/2021	Pharmacy Services	Pharmacy & Therapeutics (P&T) Committee

Policy Revisions History			
Review Date	**Summary of Revisions**	**Revision Effective Date**	**Approved by**
12/1/2020	Created policy for MH Partial Unified Formulary	1/1/2021	P&T Committee
5/13/2021	Annual policy review, no changes	9/1/2021	P&T Committee
10/1/2021	MH UPPL Update: Guideline updated to reflect eight new agents that will be added to UPPL. Additionally, multiple criteria changes were updated based on literature for growth hormone deficiency or panhypopituitarism, Noonan, Prader-Willi, Turner syndrome, chronic renal failure up to time of renal transplantation, and (SGA/IUGR) with failed catch-up growth between age 2 to 4.	1/1/2022	P&T Committee

Next Review Date

5/2022

References

1. Genotropin [package insert]. New York, NY: Pfizer Inc.; January 2019.
2. Humatrope [package insert]. Indianapolis, IN: Eli Lilly and Company; December 2016.
3. Norditropin [package insert]. Plainsboro, NJ: Novo Nordisk Inc.; February 2018.
4. Nutropin AQ [package insert]. South San Francisco, CA: Genentech, Inc.; December 2016.
5. Saizen [package insert]. Rockland, MA: EMD Serono Inc.; December 2016.
6. Zomacton [package insert]. Parsippany, NJ: Ferring Pharmaceuticals Inc.; January 2018.
7. Omnitrope [package insert]. Princeton, NJ: Sandoz Inc.; December 2016.
8. Zorbtive (somatropin) [package insert]. Rockland, MA: EMD Serono, Inc.; May 2017.

Disclaimer Information

Medical Policies are the Plan's guidelines for determining the medical necessity of certain services or supplies for purposes of determining coverage. These Policies may also describe when a service or supply is considered experimental or investigational, or cosmetic. In making coverage decisions, the Plan uses these guidelines and other Plan Policies, as well as the Member's benefit document, and when appropriate, coordinates with the Member's health care Providers to consider the individual Member's health care needs.

Plan Policies are developed in accordance with applicable state and federal laws and regulations, and accrediting organization standards (including NCQA). Medical Policies are also developed, as appropriate, with consideration of the medical necessity definitions in various Plan products, review of current literature, consultation with practicing Providers in the Plan's service area who are medical experts in the particular field, and adherence to FDA and other government agency policies. Applicable state or federal mandates, as well as the Member's benefit document, take precedence over these guidelines. Policies are reviewed and updated on an annual basis, or more frequently as needed. Treating providers are solely responsible for the medical advice and treatment of Members.

The use of this Policy is neither a guarantee of payment nor a final prediction of how a specific claim(s) will be adjudicated. Reimbursement is based on many factors, including member

eligibility and benefits on the date of service; medical necessity; utilization management guidelines (when applicable); coordination of benefits; adherence with applicable Plan policies and procedures; clinical coding criteria; claim editing logic; and the applicable Plan – Provider agreement.