Clinical Policy: Asfotase Alfa (Strensiq)

Reference Number: LA.PHAR.328
Effective Date: 12.21.23
Last Review Date: 01.15.25~~04.30.24~~
Line of Business: Medicaid

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

****Please note: This policy is for medical benefit****

Description
Asfotase alfa (Strensiq®) is a tissue nonspecific alkaline phosphatase.

FDA Approved Indication(s)
Strensiq is indicated for the treatment of patients with perinatal/infantile- and juvenile-onset hypophosphatasia (HPP).

Policy/Criteria
Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

It is the policy of Louisiana Healthcare Connections that Strensiq is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Perinatal/Infantile- and Juvenile-Onset Hypophosphatasia (must meet all)**:**

1. Diagnosis of perinatal/infantile- or juvenile-onset HPP as evidenced by all of the following (a, b, and c):
   a. Age of onset is < 18 years;
   b. Presence of one of the following laboratory indices (i, ii, or ~~ii~~iii):
      i. ~~Mutation in the *ALPL* gene encoding for~~Molecular genetic testing documenting tissue non-specific alkaline phosphatase (~~TNSALP)*;~~ALPL) gene mutation;
      ii. ~~Serum~~Low baseline serum alkaline phosphatase ~~(ALP) below the age-adjusted normal range and either~~activity;
      ~~ii.~~ An elevated level of ~~the following (~~a ~~or b):~~
         ~~a) Plasma~~tissue non-specific alkaline phosphatase substrate (i.e., serum pyridoxal 5'-phosphate ~~(PLP; main circulating form of vitamin B6) above the upper limit of normal (ULN);~~
      ~~b)~~iii. ~~Urinary~~, serum, or urinary inorganic pyrophosphate, urinary phosphoethanolamine ~~(PEA) above the ULN;~~);
   c. History of one of the following HPP clinical manifestations (i, ii, iii, or iv):
      i. Vitamin B6-dependent seizures;
      ii. Failure to thrive or growth failure/short stature;
      iii. Nephrocalcinosis with hypercalcemia/hypercalciuria;

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iv. Skeletal abnormalities and associated impairments (any of the following):
   a) Craniosynostosis (premature fusion of one or more cranial sutures) with increased intracranial pressure;
   b) Rachitic chest deformity (costochondral junction enlargement seen in advanced rickets) with associated respiratory compromise;
   c) Limb deformity with delayed walking or gait abnormality;
   d) Compromised exercise capacity due to rickets and muscle weakness;
   e) Low bone mineral density for age with unexplained fractures;
   f) Alveolar bone loss with premature loss of deciduous (primary) teeth;
2. Prescribed by or in consultation with an endocrinologist;
3. Dose does not exceed the following (a or b):
   a. Perinatal/infantile-onset HPP: 9 mg/kg per week;
   b. Juvenile-onset HPP: 6 mg/kg per week.

Approval duration: 6 months

~~*TNSALP is an ALP isoenzyme; a functional mutation in the gene (ALPL) encoding for TNSALP results in low TNSALP activity (as evidenced by a low serum ALP level) and increased levels of TNSALP substrates (PLP and PEA).~~

B. Other diagnoses/indications (must meet 1 or 2)**:**
1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: LA.PMN.53 for Medicaid.

II. Continued Therapy

A. Perinatal/Infantile- and Juvenile-Onset Hypophosphatasia (must meet all)**:**
1. Currently receiving medication via Louisiana Healthcare Connections benefit or member has previously met initial approval criteria;
2. Member is responding positively to therapy, as evidenced by improvement in any of the following on initial re-authorization request:
   a. Height velocity;
   b. Respiratory function;
   c. Skeletal manifestations (e.g., bone mineralization, bone formation and remodeling, fractures, deformities);
   d. Motor function, mobility, or gait;
3. If request is for a dose increase, new dose does not exceed the following (a or b):
   a. Perinatal/infantile-onset HPP: 9 mg/kg per week;
   b. Juvenile-onset HPP: 6 mg/kg per week.

Approval duration: 12 months

B. Other diagnoses/indications (must meet 1 or 2)**:**

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: LA.PMN.53 for Medicaid.

III. Diagnoses/Indications for which coverage is NOT authorized:

A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policy – LA.PMN.53 for Medicaid, or evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

~~ALP: alkaline phosphatase~~
FDA: Food and Drug Administration
HPP: hypophosphatasia
~~PEA: phosphoethanolamine~~
~~PLP: pyridoxal 5'-phosphate~~
~~TNSALP: tissue non-specific alkaline phosphatase~~
~~ULN: upper limit of normal~~

Appendix B: Therapeutic Alternatives

Not applicable

Appendix C: Contraindications/Boxed Warnings

- ~~None~~Contraindication(s): none reported
- Boxed warning(s): hypersensitivity reactions including anaphylaxis

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Perinatal/infantile-onset HPP	6 mg/kg SC per week as either: • 2 mg/kg three times per week, or • 1 mg/kg six times per week The dose may be increased for lack of efficacy (e.g., no improvement in respiratory status, growth, or radiographic findings) up to 9 mg/kg per week, administered as 3 mg/kg SC three times per week.	9 mg/kg/week
Juvenile-onset HPP	6 mg/kg SC per week as either: • 2 mg/kg three times per week, or • 1 mg/kg six times per week	6 mg/kg/week

VI. Product Availability

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Single-use vials: 18 mg/0.45 mL, 28 mg/0.7 mL, 40 mg/mL, 80 mg/0.8 mL

VII. References

1. Strensiq Prescribing Information. New Haven, CT: Alexion Pharmaceuticals, Inc.; ~~June 2020~~July 2024. Available at http://strensiq-hcp.com~~/images/Strensiq_PRESCRIBING_INFORMATION.pdf.~~. Accessed ~~August 25, 2022~~~~June 30, 2023~~July 15, 2024.
2. Beck C, Morback H, Stenzel M. Hypophosphatasia: Recent advances in diagnosis and treatment. Open Bone J. 2009; 1:8-15.
3. Scott LJ. Asfotase alfa in perinatal/infantile-onset and juvenile-onset hypophosphatasia: A guide to its use in the USA. Bio Drugs. 2016; 30:41-48. DOI 10.1007/s40259-016-0161-x.
4. Whyte MP, Rockman-Greenberg C, Ozono K, et al. Asfotase alfa treatment improves survival for perinatal and infantile hypophosphatasia. J Clin Endocrinol Metab. January 2016; 101(1):334-42. Doi: 10.1210/jc.2015-3462. Epub 2015 Nov 3.
5. Orimo H. Pathophysiology of hypophosphatasia and the potential role of asfotase alfa. Ther Clin Risk Manag. May 17, 2016; 12:777-86. Doi: 10.2147/TCRM.S87956. eCollection 2016.
6. Mornet E, Nunes ME. Hypophosphatasia. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2016. 2007 Nov 20 [updated 2016 Feb 4]. Available at https://www.ncbi.nlm.nih.gov/books/NBK1150/. Accessed August 30, 2017.
7. Bishop N. Clinical management of hypophosphatasia. Clin Cases miner Bone Metab. 2015; 12(2): 170-173.
8. Choida V, Bubbear JS. Update on the management of hypophosphatasia. Ther Adv Musculoskel Dis. 2019;11:1-8.
9. Kishnani PS, et al. Monitoring guidance for patients with hypophosphatasia treated with asfotase alfa. Mol Genetics and Metab. 2017;122:4-17.
10. Khan AA, Brandi ML, Rush ET, et al. Hypophosphatasia diagnosis: current state of the art and proposed diagnostic criteria for children and adults. Osteoporosis International. 2023;35:431-8. https://doi.org/10.1007/s00198-023-06844-1.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
J3490, C9399	Unclassified drugs or biologicals

Reviews, Revisions, and Approvals	Date	LDH Approval Date
Converted corporate to local policy.	06.19.23	10.24.23
Annual review: no significant changes; references reviewed and updated.	04.30.24	07.29.24
Annual review: no significant changes; added new Boxed Warning from a recent label update; references reviewed and updated.	01.15.25	

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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable LHCC administrative policies and procedures.

This clinical policy is effective as of the date determined by LHCC. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. LHCC retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom LHCC has no control or right of control. Providers are not agents or employees of LHCC.