Clinical Policy: Asfotase Alfa (Strensiq)
Reference Number: CP.PHAR.328
Effective Date: 03.01.17
Last Review Date: 11.19
Line of Business: Commercial, HIM, Medicaid

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

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 health plans affiliated with Centene Corporation® 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 or ii):
         i. Mutation in the ALPL gene encoding for tissue non-specific alkaline phosphatase (TNSALP)*;
         ii. Serum alkaline phosphatase (ALP) below the age-adjusted normal range and either of the following (a or b):
            a) Plasma pyridoxal 5’-phosphate (PLP; main circulating form of vitamin B6) above the upper limit of normal (ULN);
            b) 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;
         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
   1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace, and CP.PMN.53 for Medicaid.

II. Continued Therapy
   A. Perinatal/Infantile- and Juvenile-Onset Hypophosphatasia (must meet all):
      1. Currently receiving medication via Centene 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. Currently receiving medication via Centene benefit and documentation supports positive response to therapy.
      Approval duration: Duration of request or 6 months (whichever is less); or
   2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace and CP.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 – CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace and CP.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 reported

V. Dosage and Administration

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<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
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<tr>
<td>Perinatal/infantile-onset HPP</td>
<td>6 mg/kg SC per week as either: 2 mg/kg three times per week, or 1 mg/kg six times per week</td>
<td>9 mg/kg/week</td>
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<td>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.</td>
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<tr>
<td>Juvenile-onset HPP</td>
<td>6 mg/kg SC per week as either: 2 mg/kg three times per week, or 1 mg/kg six times per week</td>
<td>6 mg/kg/week</td>
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VI. Product Availability
Single-use vials: 18 mg/0.45 mL, 28 mg/0.7 mL, 40 mg/mL, 80 mg/0.8 mL

VII. References

### Reviews, Revisions, and Approvals

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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. The Health Plan 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. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.
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**Note: For Medicaid members**, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

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