Clinical Policy: Alpha-1 Proteinase Inhibitors (Aralast NP, Glassia, Prolastin-C, Zemaira)

Reference Number: PA.CP.PHAR.94
Effective Date: 01/18
Last Review Date: 01/19

Coding Implications
Revision Log

Description
The following are alpha1-proteinase inhibitors requiring prior authorization: alpha1-proteinase inhibitor, human (Aralast™ NP, Glassia®, Prolastin®-C, Zemaira®).

FDA Approved Indication(s)
Aralast NP, Glassia, Prolastin-C, and Zemaira are indicated for chronic augmentation and maintenance therapy in adults with clinical evidence of emphysema due to severe congenital deficiency of alpha1-PI (alpha1-antitrypsin [AAT] deficiency). Alpha1-PI products increase antigenic and functional (anti-neutrophil elastase capacity) serum levels and antigenic lung epithelial lining fluid levels of alpha1-PI.

Limitation(s) of use:
- The effect of augmentation therapy with alpha1-PI products on pulmonary exacerbations and on the progression of emphysema in alpha1-PI deficiency has not been conclusively demonstrated in randomized, controlled clinical trials.
- Clinical data demonstrating the long-term effects of chronic augmentation and maintenance therapy of individuals with alpha1-PI products are not available.
- Alpha1-P1 products are not indicated as therapy for lung disease in patients in whom severe alpha1-PI deficiency has not been established.

Policy/Criteria
It is the policy of of Pennsylvania Health and Wellness that Aralast NP, Glassia, Prolastin-C, and Zemaira are **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Alpha-1 Antitrypsin Deficiency (must meet all):
1. Diagnosis of severe congenital AAT deficiency;
2. Prescribed by or in consultation with a pulmonologist;
3. Age ≥ 18 years;
4. Member meets one of the following (a or b):
   a. Documentation of plasma AAT level < 11 micromol/L (approximately 50 mg/dL using nephelometry or 80 mg/dL by radial immunodiffusion);
   b. If member has an AAT level >11 umol/L, then the member must have one of the high-risk phenotypes (i.e. PiZZ, PiZnull, Pi(null, null), or one of a few rare phenotypes [e.g. Pi(Malton, Malton)].
5. Clinical evidence of emphysema (a or b):
   a. Forced expiratory volume in one second (FEV_1) from ≥ 30% to < 65% of predicted, post-bronchodilator;
   b. FEV_1 from ≥ 65% to < 80% of predicted, post-bronchodilator, and a rapid decline in lung function showing a change in FEV_1 > 100 mL/year;

6. Dose does not exceed 60 mg/kg/week.

Approval Duration: 6 months

B. Other diagnoses/indications: Refer to PA.CP.PMN.53

II. Continued Approval

A. Alpha-1 Antitrypsin Deficiency (must meet all)**:**

1. Currently receiving medication via of Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or Continuity of Care policy applies;
2. Documentation supports positive response to therapy;
3. Prescribed dose does not exceed 60 mg/kg once weekly.

Approval Duration: 12 months

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

1. Currently receiving medication via of Pennsylvania Health and Wellness benefit and documentation supports positive response to therapy; or
2. Refer to PA.CP.PMN.53

Background

Description/Mechanism of Action:
Aralast NP, Glassia, Prolastin-C, and Zemaira are purified human alpha-1 proteinase inhibitors. Alpha-1 antitrypsin (AAT) is the principle protease inhibitor in serum. Its major physiologic role is to render proteolytic enzymes (secreted during inflammation) inactive. A decrease in AAT, as seen in congenital AAT deficiency, leads to increased elastic damage in the lung, causing emphysema.

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

AAT: alpha1-antitrypsin
Alpha1-PI: alpha1-proteinase inhibitors
COPD: chronic obstructive pulmonary disease
FDA: Food and Drug Administration
FEV_1: forced expiratory volume in one second

Appendix B: Therapeutic Alternatives
Not applicable

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): use in IgA deficient patients with known antibodies against IgA and/or a history of anaphylaxis or other severe systemic reaction to alpha-1 PI, due to the risk of severe hypersensitivity, including anaphylaxis.
- Boxed warning(s): none reported

Appendix D: General Information

- The American Thoracic Society (ATS) and the European Respiratory Society (ERS) state that alpha-1-proteinase inhibitor therapy does not confer benefit in, and is not recommended for, patients who have alpha-1-proteinase-associated liver disease.
- The 2016 COPD Foundation's clinical practice guidelines for AAT deficiency in the adult recommend intravenous augmentation therapy for individuals with FEV1 less than 30% predicted with a weak recommendation with a low quality of evidence, and low value placed on the cost of this therapy. The 2003 ATS-ERS guidelines mirror the COPD Foundation in that evidence of benefit from augmentation therapy is weak in those with severe airflow obstruction.
- Aralast NP, Glassia, Prolastin-C, Zemaira: Safety and effectiveness in the pediatric population have not been established

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Emphysema due to AAT deficiency	60 mg/kg IV once weekly	60 mg/kg/week

V. Product Availability

Drug Name	Availability
Alpha1-proteinase inhibitor, human (Aralast NP)	Single-use vial: 500 mg, 1,000 mg
Alpha1-proteinase inhibitor, human (Glassia)	Single-use vial: 1,000 mg/50 mL
Alpha1-proteinase inhibitor, human (Prolastin-C)	Single-use vial: 1,000 mg (Powder)
Alpha1-proteinase inhibitor, human (Prolastin-C)	Single-use vial: 1,000 mg/20 mL (Liquid)
Alpha1-proteinase inhibitor, human (Zemaira)	Single-use vial: 1,000 mg

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
J0256	Injection, alpha 1-proteinase inhibitor (human), not otherwise specified, 10 mg Aralast NP; Prolastin-C; Zemaira
J0257	Injection, alpha 1 proteinase inhibitor (human), (Glassia), 10 mg

Reviews, Revisions, and Approvals	Date	Approval Date
Removed requirement for supportive measures (avoidance of cigarette smoking and vaccinations) due to lack of actionability and objectivity. Protective threshold value per nephelometry changed from 57 mg/dL to 50 mg/dL per American Thoracic Society 2003 guidelines. Added "If the		

Reviews, Revisions, and Approvals	Date	Approval Date
member has an AAT level >11 umol/L, then the member must have one of the high-risk phenotypes (i.e. PiZZ, PiZnull, Pi(null, null), or one of a few rare phenotypes [e.g. Pi(Malton, Malton)]" to allow treatment before clinical deterioration due to definite diagnosis. Added prescriber requirement due to the complexity of disease diagnosis and management; Changed minimally significant change in FEV from 120 mL to 100 mL per ATC guidelines and specialist feedback. References reviewed and updated.		
1Q 2019 annual review: per 2018 GOLD and 2003 ATS guidelines, corrected FEV_1 range to include 65% without requiring demonstration of rapid decline in lung function in FEV_1 of > 100 mL/year; references reviewed and updated.	01/19	

References

1. Aralast NP Prescribing Information. Westlake Village, CA: Baxter Healthcare Corporation; September 2015. Available at: http://www.shirecontent.com/PI/PDFs/ARALASTNP_USA_ENG.pdf. Accessed October 30, 2018.
2. Glassia Prescribing Information. Negev, Israel: Kamada, Ltd.; June 2017. Available at: http://www.liquidglassia.com. Accessed October 30, 2018.
3. Prolastin-C Powder Prescribing Information. Research Triangle Park, NC: Grifols Therapeutics, Inc.; August 2016. Available at: http://www.prolastin.com. Accessed October 30, 2018.
4. Prolastin-C Liquid Prescribing Information. Research Triangle Park, NC: Grifols Therapeutics, Inc.; September 2017. Available at: https://www.prolastin.com/documents/45403777/0/prolastinpi/b436e646-0787-4aad-a3d5-b5e004cc92c6. Accessed October 30, 2018.
5. Zemaira Prescribing Information. Kankakee, IL: CSL Behring LLC; September 2015. Available at: http://www.zemaira.com. Accessed October 30, 2018.
6. American Thoracic Society/European Respiratory Society statement: standards for the diagnosis and management of individuals with alpha-1 antitrypsin deficiency. Am J Respir Crit Care Med. 2003; 168(7): 818-900.
7. Sandhaus RA, Turino G, and Brantly ML, et al. The diagnosis and management of alpha-1 antitrypsin deficiency in the adult. Journal of COPD Foundation. 2016;3(3):668-682.
8. Cazzola M, MacNee W, Martinez FJ, et al.; American Thoracic Society; European Respiratory Society Task Force on outcomes of COPD. Outcomes for COPD pharmacological trials: from lung function to biomarkers. Eur Respir J 2008;31:416–469.
9. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease (2018 Report). Available at: https://goldcopd.org/wp-content/uploads/2017/11/GOLD-2018-v6.0-FINAL-revised-20-Nov_WMS.pdf. Accessed October 30, 2018.