Alpha-1-Proteinase Inhibitors: Aralast NP®; Glassia®; Prolastin®-C; Zemaira® (Intravenous)

Effective Date: 01/01/2020
Review Date: 12/13/2019, 1/29/2020, 01/28/2021, 4/22/2021, 4/14/2022, 3/2/2023, 12/07/2023, 01/10/2024, 04/24/2024, 12/04/2024, 04/30/2025, 02/17/2026

Scope: Medicaid, Commercial, Medicare

I. Length of Authorization

Coverage will be provided for 6 months and may be renewed.

II. Dosing Limits

A. Quantity Limit (max daily dose) [NDC Unit]:

- Aralast NP 1 g/50 mL: 7 vials per week
- Aralast NP 0.5 g/25 mL: 1 vial per week
- Glassia 1 g/50 mL: 3 vials per week
- Glassia 4 g/150 mL: 2 vials per week
- Glassia 5 g/250 mL: 2 vials per week
- Prolastin-C 1 g/20 mL: 7 vials per week
- Prolastin-C Liquid 1g/20 mL: 7 vials per week
- Zemaira 1 g/20 mL: 3 vials per week
- Zemaira 4 g/76 mL: 1 vial per week
- Zemaira 5 g/95 mL: 1 vial per week

B. Max Units (per dose and over time) [HCPCS Unit]:

- 700 billable units every 7 days

III. Summary of Evidence

Aralast NP: Aralast NP is an Alpha1-Protease Inhibitor indicated for chronic augmentation therapy in adults with clinically evident emphysema due to severe congenital deficiency of Alpha1 PI. A clinical trial comparing Aralast and Prolastin was conducted with 28 subjects who had congenital Alpha1-PI deficiency and emphysema, none of whom had received Alpha1-PI augmentation therapy in the previous six months. Participants were randomized to receive either Aralast or Prolastin at a dosage of 60 mg/kg intravenously per week for 10 weeks, after which those on Prolastin switched to Aralast. Results indicated that both treatments effectively maintained target serum Alpha1-PI trough levels and increased antigenic levels in epithelial lining fluid (ELF), with Aralast exhibiting a metabolic half-life of 5.9 days.. Common side effects include headache, musculoskeletal discomfort, vessel puncture site bruise and rhinorrhea.

Glassia: Glassia is an Alpha1-Proteinase Inhibitor (Human) (Alpha1-PI) indicated for chronic augmentation and maintenance therapy in adults with clinically evident emphysema due to severe hereditary deficiency of Alpha1-PI. A randomized, double-blind trial compared Glassia to Prolastin in 50 subjects with Alpha1-PI deficiency. Participants received either treatment at 60 mg/kg intravenously weekly for 12 weeks, followed by open-label Glassia for an additional 12 weeks. Results showed that Glassia maintained trough levels of functional and antigenic Alpha1-PI above 11 microM, with median levels of 14.5 microM and 11.8 microM, respectively, during Weeks 7-12. Notably, 33.3% of Glassia recipients had levels below the target, yet Glassia was deemed non-inferior to Prolastin. Increases in antigenic Alpha1-PI and Alpha1-PI-neutrophil elastase complexes were observed in bronchoalveolar lavage samples, indicating effective lung delivery. Common adverse events include headache and upper respiratory infection.

Prolastin-C: Prolastin-C is an Alpha1-Proteinase Inhibitor (Human) (Alpha1-PI) indicated for chronic augmentation and maintenance therapy in adults with clinically evident emphysema due to severe hereditary deficiency of Alpha1-PI. The clinical efficacy of Prolastin-Cin treating pulmonary emphysema or reducing exacerbations has not been demonstrated in adequately powered, randomized controlled trials. A single-arm, open-label trial involving 23 subjects with the PiZZ variant showed that 19 participants receiving Prolastin-C at 60 mg/kg once weekly for up to 26 weeks maintained Alpha1-PI levels above 11 μM. Bronchoalveolar lavage results indicated statistically significant increases in Alpha1-PI and functional ANEC in the epithelial lining fluid compared to baseline. Common adverse reactions include diarrhea and fatigue.

Zemaira: Zemaira is an Alpha1-Proteinase Inhibitor (Human) (Alpha1-PI) indicated for chronic augmentation and maintenance therapy in adults with clinically evident emphysema due to severe hereditary deficiency of Alpha1-PI. Clinical trials for Zemaira were conducted pre-licensure with 89 subjects (59 males and 30 females) aged 29 to 68 years (median age 49). Ninety-seven percent had the PiZZ phenotype of Alpha1-PI deficiency, while 3% had the MMALTON phenotype. The trials aimed to demonstrate that Zemaira could augment and maintain serum A1-PI levels above 11 μM (80 mg/dL) and increase A1-PI levels in epithelial lining fluid (ELF) of the lower lung. In a double-blind trial, 44 subjects received either Zemaira or Prolastin at 60 mg/kg weekly for 10 weeks, followed by 14 weeks of Zemaira. Mean trough serum A1-PI levels during Weeks 7-11 were statistically equivalent between the groups, with Zemaira at 17.7 μM (range 13.9 to 23.2, SD 2.5) and Prolastin at 19.1 μM (range 14.7 to 23.1, SD 2.2), indicating no clinically significant difference. Adverse events include asthenia, bronchitis, sinusitis, vasodilation and injection site hemorrhage.

IV. Initial Approval Criteria[1-6,8,9,12]

Medicare members who have previously received this medication within the past 365 days are not subject to Step Therapy Requirements.

- Patient is at least 18 years of age; **AND**

Universal Criteria

- Member is not a tobacco smoker; **AND**
- Member is receiving optimal medical therapy (e.g., comprehensive case management, pulmonary rehabilitation, vaccinations, smoking cessation, self-management skills, etc.); **AND**
- Member does not have immunoglobulin-A (IgA) deficiency with antibodies against IgA; **AND**

Emphysema due to alpha-1-antitrypsin (AAT) deficiency †, Φ (applies only to Prolastin-C)

- Member has an FEV_1 in the range of 30-65% of predicted; **AND**
- Member has alpha-1-antitrypsin (AAT) deficiency with PiZZ, PiZ (null), or Pi (null, null) phenotypes; **AND**
- Member has AAT-deficiency and clinical evidence of panacinar/panlobular emphysema; **AND**
- Member has low serum concentration of AAT ≤ 57 mg/dL or ≤ 11 μM/L as measured by nephelometry
- For Commercial and Medicare members ONLY when requesting Aralast or Glassia they must have a documented failure, intolerance, or contraindication to Prolastin or Zemaira

† FDA Approved Indication(s); **Φ** Orphan Drug

V. Renewal Criteria[1-6,8,9]

Authorizations can be renewed based on the following criteria:

- Member continues to meet universal and other indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section III; **AND**
- Disease response with treatment as defined by elevation of AAT levels above baseline, substantial reduction in rate of deterioration of lung function as measured by percent predicted FEV_1, or improvement in CT scan lung density; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include severe hypersensitivity reactions, etc.

VI. Dosage/Administration[1-5]

Indication	Dose
Emphysema due to AAT deficiency	60 mg/kg by intravenous (IV) infusion administered once every 7 days (weekly)

VII. Billing Code/Availability Information

HCPCS Code & NDC:

Drug	Manufacturer	HCPCS code	1 Billable Unit	SDV Size	NDC
Aralast NP (powder)	Baxalta US Inc.	J0256	10 mg	1 g/50 mL	00944-2815-xx
				0.5 g/25 mL	00944-2814-xx

Glassia (solution)	Baxalta US Inc.	J0257	10 mg	1 g/50 mL	00944-2884-xx
				4 g/200 mL	
				5 g/250 mL	
Prolastin-C (powder)	Grifols Therapeutics Inc.	J0256	10 mg	1 g/20 mL	13533-0700-xx
					13533-0701-xx
					13533-0702-xx
					13533-0703-xx
Prolastin-C Liquid (solution)	Grifols Therapeutics Inc.	J0256	10 mg	1 g/20 mL	13533-0705-xx
Zemaira (powder)	CSL Behring LLC	J0256	10 mg	1 g/20 mL	00053-7201-xx
				4 g/76 mL	00053-7202-xx
				5 g/95 mL	00053-7203-xx

VIII. References

1. Glassia [package insert]. Lexington, MA; Baxalta US Inc.; February 2025. Accessed January 2026.
2. Zemaira [package insert]. Kankakee, IL; CSL Behring LLC; January 2024. Accessed April January 2026.
3. Aralast NP [package insert]. Lexington, MA; Baxalta US Inc.; May 2025. Accessed January 2026.
4. Prolastin-C Liquid [package insert]. Research Triangle Park, NC; Grifols Therapeutics, Inc.; February 2022 . Accessed November 2023.
5. Prolastin-C [package insert]. Research Triangle Park, NC; Grifols Therapeutics, Inc.; February 2022. Accessed November 2023.
6. American Thoracic Society/European Respiratory Society Statement: Standards for the Diagnosis and Management of Individuals with Alpha-1 Antitrypsin Deficiency. American Thoracic Society; European Respiratory Society. Am J Respir Crit Care Med. 2003 Oct 1;168(7):818-900.
7. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Global Initiative for Chronic Obstructive Lung Disease (GOLD); 2025.
8. Sandhaus RA, Turino G, Brantly ML, et al. The diagnosis and management of alpha-1 antitrypsin deficiency in the adult. Chronic Obstr Pulm Dis (Miami). 2016; 3(3):668-682.
9. Marciniuk DD, Hernandez P, Balter M, et al. Alpha-1 antitrypsin deficiency targeted testing and augmentation therapy: a Canadian Thoracic Society clinical practice guideline. Can Respir J. 2012;19(2):109-16.
10. Stocks JM, Brantly M, Pollock D, et al. Multi-center study: the biochemical efficacy, safety and tolerability of a new α1-proteinase inhibitor, Zemaira. COPD. 2006;3:17–23.

11. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Global Initiative for Chronic Obstructive Lung Disease (GOLD); 2020.
12. Miravitlles M, Dirksen A, Ferrarotti I, et al. European Respiratory Society statement: diagnosis and treatment of pulmonary disease in α1-antitrypsin deficiency. Eur Respir J 2017; 50.

Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
E88.01	Alpha-1-antitrypsin deficiency

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD), Local Coverage Determinations (LCDs), and Local Coverage Articles (LCAs) may exist and compliance with these policies is required where applicable. They can be found at: http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/LCA): N/A

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	**Applicable State/US Territory**	**Contractor**
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp (WPS)
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.
8	MI, IN	Wisconsin Physicians Service Insurance Corp (WPS)
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA, LLC
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA, LLC
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC

Policy Rationale:

Aralast NP, Glassia; Prolastin-C, and Zemaira were reviewed by the Neighborhood Health Plan of Rhode Island Pharmacy & Therapeutics (P&T) Committee. Neighborhood adopted the following clinical coverage criteria to ensure that its members use Aralast NP, Glassia; Prolastin-C, and Zemaira according to Food and Drug Administration (FDA) approved labeling and/or relevant clinical literature. Neighborhood worked with network prescribers and pharmacists to draft these criteria. These criteria will help ensure its members are using this drug for a medically accepted indication, while minimizing the risk for adverse effects and ensuring more cost-effective options are used first, if applicable and appropriate. For Medicare members, these coverage criteria will only apply in the absence of National Coverage Determination (NCD) or Local Coverage Determination (LCD) criteria. Neighborhood will give individual consideration to each request it reviews based on the information submitted by the prescriber and other information available to the plan.