

Lumizyme® (alglucosidase alfa) (Intravenous)

Document Number: OHSU HEALTHSERVICES-0079

Last Review Date: 04/01/2026

Date of Origin: 11/28/2011

Dates Reviewed: 12/2011, 02/2013, 02/2014, 08/2014, 07/2015, 10/2016, 10/2017, 10/2018, 02/2019, 02/2020, 02/2021, 09/2021, 02/2022, 02/2023, 02/2024, 04/2025, 04/2026

I. Length of Authorization

- Initial: Prior authorization validity will be provided initially for 12 months (365 days).
- Renewal: Prior authorization validity may be renewed every 12 months (365 days) thereafter.

II. Dosing Limits

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

- 230 billable units every 14 days

III. Initial Approval Criteria ^{1,4}

Prior authorization validity is provided in the following conditions:

- Documented baseline age-appropriate values for one or more of the following:
 - Infantile-onset disease: muscle weakness, motor function, respiratory function, cardiac involvement, percent predicted forced vital capacity (FVC), and/or 6-minute walk test (6-MWT); **OR**
 - Late-onset (non-infantile) disease: FVC and/or 6-MWT; **AND**

****NOTE:** For very young members in which FVC or 6-MWT are not suitable for measuring, requests will be reviewed on a case-by-case basis.

Universal Criteria ¹

- Will not be used in combination with other enzyme replacement therapies; **AND**
- Members susceptible to fluid volume overload or those with an acute underlying respiratory illness or compromised cardiac or respiratory function will be closely monitored for exacerbation of their cardiac or respiratory status during infusion; **AND**

Pompe Disease (Acid Alpha-Glucosidase [GAA] deficiency) † ‡ Φ^{1,4}

- Diagnosis has been confirmed by one of the following:
 - Deficiency of acid alpha-glucosidase (GAA) enzyme activity^{**}; **OR**
 - Detection of biallelic pathogenic (or likely pathogenic) variants in the *GAA* gene by molecular genetic testing

****NOTE:** The diagnosis of Infantile-Onset Pompe Disease (IOPD) can be established rapidly after a positive newborn screening (NBS) result when physical examination, echocardiography, elevated CK, and elevated urinary glucotetrasaccharide (Hex4) support the diagnosis. It is recommended that the diagnosis be confirmed either by molecular genetic testing or by measurement of GAA activity in another tissue.⁴

† FDA Approved Indication(s); ‡ Compendia Recommended Indication(s); Φ Orphan Drug

IV. Renewal Criteria^{1,4}

Prior authorization validity may be renewed based on the following criteria:

- Member continues to meet the universal and other indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section III; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include: hypersensitivity reactions including anaphylaxis, infusion-associated reactions (e.g., pyrexia, chills, flu-like illness, rash/urticaria, pruritus, etc.), immune-mediated reactions, acute cardiorespiratory failure, cardiac arrhythmia during general anesthesia, etc.; **AND**
- Member is being monitored for antibody formation (including neutralizing antibodies); **AND**
- Member has demonstrated a beneficial response to therapy compared to pretreatment age-appropriate baseline values in one or more of the following:
 - Infantile-onset disease: stabilization or improvement in muscle weakness, motor function, respiratory function, cardiac involvement, FVC, and/or 6-MWT; **OR**
 - Late-onset (non-infantile) disease: stabilization or improvement in FVC and/or 6-MWT

V. Dosage/Administration¹

Indication	Dose
Pompe Disease	Administer 20 mg/kg body weight as an intravenous (IV) infusion every 2 weeks

VI. Billing Code/Availability InformationHCPCS Code:

- J0221 – Injection, alglucosidase alfa, (lumizyme), 10 mg; 1 billable unit = 10 mg

NDC:

- Lumizyme 50 mg single-dose vial for injection: 58468-0160-xx

VII. References

1. Lumizyme [package insert]. Cambridge, MA; Genzyme Corporation; December 2024. Accessed March 2026.
2. Cupler EJ, Berger KI, Leshner RT, et al. Consensus treatment recommendations for late-onset Pompe disease. *Muscle Nerve*. 2012 Mar; 45(3):319-33. doi: 10.1002/mus.22329. Epub 2011 Dec 15.
3. Kishnani PS, Steiner RD, Bali D, et al. Pompe disease diagnosis and management guidelines. *Genet Med* 2006; 8:267-88.
4. Sperry E, Leslie N, Berry L, et al. Pompe Disease. GeneReviews. <https://www.ncbi.nlm.nih.gov/books/NBK1261/>. Initial Posting: August 31, 2007; Last Update: August 21, 2025. Accessed on February 27, 2026.
5. Tarnopolsky M, Katzberg H, Petrof BJ, et al. Pompe Disease: Diagnosis and Management. Evidence-Based Guidelines from a Canadian Expert Panel. *Can J Neurol Sci*. 2016 Jul;43(4):472-85.
6. Kishnani PS, Hwu WL, et al. Introduction to the Newborn Screening, Diagnosis, and Treatment for Pompe Disease Guidance Supplement. *Pediatrics* 2017 Jul;(1):S1-S3.
7. van der Ploeg AT, Clemens PR, Corzo D, et al. A randomized study of alglucosidase alfa in late-onset Pompe's disease. *N Engl J Med*. 2010 Apr 15;362(15):1396-406. doi: 10.1056/NEJMoa0909859.
8. Nicolino M, Byrne B, Wraith JE, et al. Clinical outcomes after long-term treatment with alglucosidase alfa in infants and children with advanced Pompe disease. *Genet Med*. 2009 Mar;11(3):210-9. doi: 10.1097/GIM.0b013e31819d0996.
9. Sawada T, Kido J, Nakamura K. Newborn Screening for Pompe Disease. *Int J Neonatal Screen*. 2020 Jun; 6(2): 31. Published online 2020 Apr 5. doi: 10.3390/ijns6020031

Appendix A – Non-Quantitative Treatment Limitations (NQTL) Factor Checklist

Non-quantitative treatment limitations (NQTLs) refer to the methods, guidelines, standards of evidence, or other conditions that can restrict how long or to what extent benefits are provided under a health plan. These may include things like utilization review or prior authorization. The utilization management NQTL applies comparably, and not more stringently, to mental health/substance use disorder (MH/SUD) Medical Benefit Prescription Drugs and medical/surgical (M/S) Medical Benefit Prescription Drugs. The table below lists the factors that were considered in designing and applying prior authorization to this drug/drug group, and a summary of the conclusions that Prime's assessment led to for each.

Factor	Conclusion
Indication	Yes: Consider for PA
Safety and efficacy	Yes: Consider for PA
Potential for misuse/abuse	No: PA not a priority
Cost of drug	Yes: Consider for PA

Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
E74.02	Pompe disease

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

The preceding information is intended for non-Medicare coverage determinations. 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 Determinations (NCDs) and/or Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. Local Coverage Articles (LCAs) may also exist for claims payment purposes or to clarify benefit eligibility under Part B for drugs which may be self-administered. The following link may be used to search for NCD, LCD, or LCA documents: <https://www.cms.gov/medicare-coverage-database/search.aspx>. Additional indications, including any preceding information, may be applied 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
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA
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