Original Effective Date: 01/01/2016
Current Effective Date: 09/10/2025
Last P&T Approval/Version: 07/30/2025
Next Review Due By: 07/2026
Policy Number: C8716-A

Lumizyme (alglucosidase alfa)

PRODUCTS AFFECTED

Lumizyme (alglucosidase alfa)

COVERAGE POLICY

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Coverage Guideline must be read in its entirety to determine coverage eligibility, if any. This Coverage Guideline provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide Molina Healthcare complete medical rationale when requesting any exceptions to these guidelines.

Documentation Requirements:
Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

DIAGNOSIS:
Pompe disease (GAA deficiency)

REQUIRED MEDICAL INFORMATION:
This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. If a drug within this policy receives an updated FDA label within the last 180 days, medical necessity for the member will be reviewed using the updated FDA label information along with state and federal requirements, benefit being administered and formulary preferencing. Coverage will be determined on a case-by-case basis until the criteria can be updated through Molina Healthcare, Inc. clinical governance. Additional information may be required on a case-by-case basis to allow for adequate review. When the requested drug product for coverage is dosed by weight, body surface area or other member specific measurement, this data element is required as part of the medical necessity review. The Pharmacy and Therapeutics Committee has determined that the drug benefit shall be a mandatory generic and that generic drugs will be dispensed whenever available.

A. POMPE DISEASE:
1. Documented diagnosis of Pompe Disease (GAA deficiency)
   AND

2. Documentation diagnosis confirmed by ONE of the following: Deficiency of acid alpha-glucosidase enzyme activity OR Detection of pathogenic variants in the GAA gene by molecular genetic testing. [DOCUMENTATION REQUIRED]
   AND
3. Documented baseline values for one or more of the following [DOCUMENTATION REQUIRED]:
   (a) Infantile-onset disease: muscle weakness, motor function, respiratory function, cardiac involvement, percent predicted forced vital capacity (FVC)
   OR
   (b) Late-onset (non-infantile) disease: percent predicted forced vital capacity (FVC), baseline walking distance or 6-minute walk test (6MWT) or gastrointestinal symptoms
   NOTE: 6MWT excluded for members at an age not able to walk
   AND
4. Lumizyme (alglucosidase) will not be used concurrently with Nexviazyme (avalglucosidase), or Pombiliti (cipaglucosidase)/Opfolda (miglustat)

CONTINUATION OF THERAPY:

A. POMPE DISEASE:
   1. Documentation that member has demonstrated a beneficial response to therapy compared to pretreatment baseline in ONE or more of the following [DOCUMENTATION REQUIRED]:
      a. Infantile-onset disease: stabilization or improvement in muscle weakness, motor function, respiratory function, cardiac involvement, or FVC
      OR
      b. Late-onset (non-infantile) disease: stabilization or improvement in FVC and/or 6MWT and signs/symptoms of the condition
   AND
   2. Prescriber attests to or clinical reviewer has found no evidence of intolerable adverse effects or drug toxicity (e.g., IgG antibody formation, severe infusion reactions since starting therapy, etc.)

DURATION OF APPROVAL:
Initial authorization: 12 months, Continuation of therapy: 12 months

PRESCRIBER REQUIREMENTS:
Prescribed by, or in consultation with a metabolic specialist, endocrinologist, biochemical geneticist, or physician experienced in the management of Pompe disease. [If prescribed in consultation, consultation notes must be submitted with initial request and reauthorization requests.]

AGE RESTRICTIONS:
No restriction

QUANTITY:
Max dose 20 mg/kg actual body weight every 2 weeks.
Note: Doses of 40 mg/kg IV once every 2 weeks have also been studied; however, no differences in outcomes between 20 mg/kg and 40 mg/kg IV are apparent (5)

PLACE OF ADMINISTRATION:
The recommendation is that infused medications in this policy will be for pharmacy or medical benefit coverage administered in a place of service that is a non-hospital facility-based location as per the Molina Health Care Site of Care program

Note: Site of Care Utilization Management Policy applies for Lumizyme (alglucosidase alfa). For information on site of care, see Specialty Medication Administration Site of Care Coverage Criteria (molinamarketplace.com)

DRUG INFORMATION

ROUTE OF ADMINISTRATION:
Intravenous

DRUG CLASS:
GAA Deficiency Treatment - Agents

FDA-APPROVED USES:
Indicated for patients with Pompe disease (acid alpha-glucosidase [GAA] deficiency)

COMPENDIAL APPROVED OFF-LABELED USES:
None

APPENDIX

APPENDIX:
None

BACKGROUND AND OTHER CONSIDERATIONS

BACKGROUND:
Lysosomal acid alpha-glucosidase (GAA, also called acid maltase) deficiency (Pompe disease, formerly classified as glycogen storage disease type II [GSD II]) is an autosomal recessive disorder with considerable allelic heterogeneity. It is caused by mutations in the gene for lysosomal acid alpha-1,4-glucosidase. Deficiency of lysosomal GAA leads to accumulation of glycogen in lysosomes and cytoplasm, which results in tissue destruction.

- The infantile form (early onset) of GAA deficiency is characterized by cardiomyopathy and severe, generalized hypotonia. Most patients with this form die within the first year or two of life without treatment.
- The juvenile and adult form (late onset) is characterized by skeletal myopathy (usually in a limb-girdle distribution) and a protracted course leading to respiratory failure.
- Infantile-onset GAA deficiency should be suspected in infants with profound hypotonia and cardiac insufficiency. Juvenile or adult-onset GAA deficiency should be considered in patients with progressive weakness in a limb-girdle distribution. Supportive findings may include:
  - Electrocardiogram demonstrating short PR interval and giant QRS complexes in all leads, suggesting biventricular hypertrophy, although this is a nonspecific finding (infantile form).
  - Electromyogram demonstrating myopathic discharges, sometimes associated with abundant myotonic and complex repetitive discharges, most prominent in the paraspinal muscles (juvenile and adult form).
  - Elevated serum creatine kinase (all forms).

  Demonstration of reduced GAA activity in a dried blood spot or leukocytes, followed by sequencing of the GAA gene, confirms the disease. Enzyme activity assays using skin fibroblasts or muscle tissue are alternatives to genetic testing to confirm the diagnosis.GAA deficiency is treated with enzyme replacement therapy (ERT), physical and occupational therapy, and supportive care (e.g., mechanical ventilation for respiratory failure).
- The advent of ERT has improved clinical outcomes and survival for both early- and late-onset GAA deficiency. However, patients on ERT may still develop gradual pelvic girdle muscle weakness. Additional complications may include fractures and sleep-disordered breathing.

CONTRAINDICATIONS/EXCLUSIONS/DISCONTINUATION:
All other uses of Lumizyme (alglucosidase alfa) are considered experimental/investigational and therefore, will follow Molina's Off- Label policy. Contraindications to Lumizyme (alglucosidase alfa) include: No

labeled contraindications.

OTHER SPECIAL CONSIDERATIONS:

Lumizyme has an FDA labeled Black Box Warning for hypersensitivity reactions including anaphylaxis, immune-mediated reactions, and risk of acute cardiorespiratory failure. Patients treated with Lumizyme have experienced life-threatening hypersensitivity reactions, including anaphylaxis. Appropriate medical monitoring and support measures, including cardiopulmonary resuscitation equipment, should be readily available during Lumizyme administration. If a severe hypersensitivity reaction (e.g., anaphylaxis) occurs, discontinue Lumizyme immediately and initiate appropriate medical treatment.

Immune mediated reactions presenting as proteinuria, nephrotic syndrome, and necrotizing skin lesions have occurred in some patients following alglucosidase alfa treatment. Monitor patients for the development of systemic immune-mediated reactions involving skin and other organs while receiving Lumizyme.

Infantile-onset Pompe disease patients with compromised cardiac or respiratory function may be at risk of serious acute exacerbation of their cardiac or respiratory compromise due to fluid overload, and require additional monitoring.

CODING/BILLING INFORMATION

CODING DISCLAIMER. *Codes listed in this policy are for reference purposes only and may not be all-inclusive or applicable for every state or line of business. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement. Listing of a service or device code in this policy does not guarantee coverage. Coverage is determined by the benefit document. Molina adheres to Current Procedural Terminology (CPT®), a registered trademark of the American Medical Association (AMA). All CPT codes and descriptions are copyrighted by the AMA; this information is included for informational purposes only. Providers and facilities are expected to utilize industry-standard coding practices for all submissions. Molina has the right to reject/deny the claim and recover claim payment(s) if it is determined it is not billed appropriately or not a covered benefit. Molina reserves the right to revise this policy as needed.*

HCPCS CODE	DESCRIPTION
J0221	Injection, alglucosidase alfa, (lumizyme), 10 mg

AVAILABLE DOSAGE FORMS:

Lumizyme SOLR 50MG single-dose vial

REFERENCES

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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. Leslie N, Tinkle BT. Glycogen Storage Disease Type II (Pompe Disease). In: Pagon RA, Adam MP, Bird TD, Dolan CR, Fong CT, Stephens K, editors. GeneReviews™ [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2013. 2007 Aug 31 [updated 2013 May9].
4. Kishnani PS, Steiner RD, Bali D, et al. Pompe disease diagnosis and management guidelines. Genet Med 2006; 8:267-88.
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6. Kishnani PS, Howell RR. Pompe disease in infants and children. JPediatr.2004;144(suppl):S35–S43.
7. Toscano, A, Schoser, B. Enzyme replacement therapy in late-onset Pompe disease: a systematic literature review. Journal of neurology. 2013 Apr;260(4):951-9. PMID:22926164
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 Med2009;11:210-9.

9. Benedikt Schoser, Nadine, Broomfield, A., Brusse, E., Jordi Diaz-Manera, Hahn, A., … Johanna. (2024). Start, switch and stop (triple-S) criteria for enzyme replacement therapy of late-onset Pompe disease: European Pompe Consortium recommendation update 2024. European Journal of Neurology. https://doi.org/10.1111/ene.16383

SUMMARY OF REVIEW/REVISIONS	DATE
REVISION- Notable revisions: Required Medical Information Continuation of Therapy Duration of Approval Appendix References	Q3 2025
REVISION- Notable revisions: Required Medical Information Continuation of Therapy Other Special Considerations References	Q3 2024
REVISION- Notable revisions: Required Medical Information Continuation of Therapy	Q3 2023
REVISION- Notable revisions: Required Medical Information Continuation of Therapy Duration of Approval Prescriber Requirements Quantity Contraindications/Exclusions/Discontinuation Other Special Considerations	Q3 2022
Q2 2022 Established tracking in new format	Historical changes on file