Clinical Criteria

Overview

This document addresses Lumizyme (alg glucosidase alfa), an enzyme replacement used for the specific indication as a treatment of Pompe disease. Pompe disease is a rare autosomal recessive disorder caused by a deficiency of acid alpha-glucosidase (GAA), an enzyme that degrades lysosomal glycogen.

Clinically, Pompe disease or glycogen storage disease type II (GSDII) presents as a wide spectrum ranging from the severe rapidly progressive infantile-onset form to a more slowly progressive late-onset form. The American College of Medical Genetics (ACMG) Work Group on Management of Pompe Disease (2006) developed algorithms to diagnose and manage both types of Pompe disease. The level of residual activity of the GAA enzyme drives Pompe disease severity and age of symptoms onset. GAA gene sequencing may be used to confirm a diagnosis or when there are discordant GAA enzyme activity studies (American Association of Neuromuscular and Electrodiagnostic Medicine [AANEM] 2009).

Note: Myozyme is no longer available and Lumizyme is the only alg glucosidase alfa product indicated for use in the United States.

Warnings

Lumizyme has a black box warning for the risk of anaphylaxis, hypersensitivity and immune-mediated reactions, and risk of cardiorespiratory failure.

Clinical Criteria

When a drug is being reviewed for coverage under a member's medical benefit plan or is otherwise subject to clinical review (including prior authorization), the following criteria will be used to determine whether the drug meets any applicable medical necessity requirements for the intended/prescribed purpose.

Lumizyme (alg glucosidase alfa)

Requests for Lumizyme (alg glucosidase alfa) may be approved if the following criteria are met:

I. Individual has a diagnosis of infantile-onset Pompe disease as confirmed by all of the following (ACMG 2006):
   A. Documentation of acid alpha-glucosidase deficiency (GAA) activity in skin fibroblasts of less than 1% of the normal mean or by GAA gene sequencing (AANEM 2009); AND
   B. Documentation of symptoms (for example respiratory and/or skeletal muscle weakness); AND
   C. Confirmed evidence of hypertrophic cardiomyopathy;

OR

II. Individual has a diagnosis of non-infantile onset (late-onset) Pompe disease as confirmed by all of the following (ACMG 2006):
   A. Documentation of GAA enzyme assay which shows reduced enzyme activity less than 40% of the lab specific normal mean value; AND
B. Documentation of a second GAA enzyme activity assay in a separate sample (from purified lymphocytes, fibroblasts or muscle) or by GAA sequencing (AANEM 2009); AND
C. Forced vital capacity (FVC) 30 – 79% of predicted value; AND
D. Ability to walk 40 meters on a 6-minute walk test (assisted devices permitted); AND
E. Muscle weakness in the lower extremities.

### Quantity Limits

**Lumizyme (agalglucosidase alfa) Quantity Limit**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Limit</th>
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<tr>
<td>Lumizyme (agalglucosidase alfa) 50 mg vials</td>
<td>20 mg/kg every 2 weeks</td>
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### Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

**HCPCS**

- J0221 Injection, agalglucosidase alfa, (Lumizyme), 10 mg
- S9357 Home infusion therapy, enzyme replacement intravenous therapy, (e.g., Imiglucerase); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem

**ICD-10 Diagnosis**

- E74.02 Pompe disease

### Document History

Revised: 09/23/2019

Document History:

- 09/23/2019 – Administrative update to add drug specific quantity limit.
- 08/17/2018 – Annual Review: No changes to criteria, added compendia references where applicable.

### References


Federal and state laws or requirements, contract language, and Plan utilization management programs or polices may take precedence over the application of this clinical criteria.