Blue Cross Blue Shield Blue Care Network of Michigan

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Medical benefit drug policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. Please reference the appropriate certificate or contract for benefit information. This policy may be updated and therefore subject to change.

Effective Date: 12/14/2023

Enzyme Replacement Therapy for Pompe Disease

Lumizyme® (alglucosidase alfa)
Nexviazyme™ (avalglucosidase alfa-ngpt)
Pombiliti™ (cipaglucosidase alfa-atga)

HCPCS: Lumizyme: J0221; Nexviazyme: J0219; Pombiliti: J3590

Policy:

Requests must be supported by submission of chart notes and patient specific documentation.

A. Coverage of the requested drug is provided when all the following are met:
   a. FDA approved indication
   b. FDA approved age
   c. Confirmation of diagnosis by serum assay showing a decrease of acid α-glucosidase activity followed by genetic testing showing a mutation in the GAA gene
   d. In late-onset disease, symptomatic manifestations of the disease must be present, including but not limited to, progressive muscle weakness, respiratory failure, frequent upper airway infections, orthopnea, sleep apnea, and/or morning headaches (must not present with only cardiac hypertrophy)
   e. Must not be used in combination or with any other enzyme replacement therapy for Pompe disease
   f. For Pombiliti only:
      i. Trial and failure, contraindication, or intolerance to at least one other enzyme replacement therapy for the treatment of Pompe disease
      ii. Must be used in combination with Opfolda™
   g. Trial and failure, contraindication, OR intolerance to the preferred drugs as listed in BCBSM/BCN's utilization management medical drug list

B. Quantity Limitations, Authorization Period and Renewal Criteria
   a. Quantity Limits: Align with FDA recommended dosing
   b. Authorization Period: 1 year at a time
   c. Renewal Criteria: Clinical documentation must be provided to confirm that current criteria are met and that the medication is providing clinical benefit

***Note: Coverage and approval duration may differ for Medicare Part B members based on any applicable criteria outlined in Local Coverage Determinations (LCD) or National Coverage Determinations (NCD) as determined by Center for Medicare and Medicaid Services (CMS). See the CMS website at http://www.cms.hhs.gov/. Determination of coverage of Part B drugs is based on medically accepted indications which have supported citations included or approved for inclusion determined by CMS approved compendia.

Background Information

- Pompe disease (PD) is an autosomal recessive lysosomal storage disorder caused by a mutation on the GAA gene. It is characterized by lysosomal accumulation of undegraded glycogen due to a deficiency or insufficient activity of the enzyme acid α-glucosidase. All patients with PD have variable but progressive, skeletal, heart, and smooth muscle issues with resulting organ damage and ultimately organ failure. The disease is classified as either infantile-onset or late-onset. Patients with infantile-onset PD present around 3 months of age with progressive left ventricular hypertrophy and generalized muscular hypotonia and typically die within the first year of life because of cardiorespiratory failure. They may also experience macroglossia, hepatosplenomegaly, and feeding difficulties. Late-onset PD can present at any age and is characterized by a slowly progressive myopathy predominantly involving skeletal muscle. Symptoms include progressive muscle weakness of the proximal lower limbs and the paraspinal muscles, respiratory failure, frequent upper airway infections, orthopnea, sleep apnea, and morning headaches.

- The American College of Medical Genetics 2011 guidelines state Pompe disease is confirmed through serum assay showing a decrease of acid α-glucosidase enzyme activity. Once shown the patient has a decrease in enzyme activity, a genetic test should be performed which should show a mutation in the GAA gene. Both tests must be demonstrative of disease for the diagnosis to be confirmed.

- Enzyme replacement therapy (ERT) is the standard of care in PD. Lumizyme, Nexviazyme, and Pombiliti are the ERT's approved for use in PD. While Lumizyme is approved for both infantile-onset and late-onset disease, Nexviazyme and Pombiliti are only indicated for use in late-onset PD. Pombiliti must be used in combination with Opfolda and only after the patient has not had improvement on their current ERT.

- Initiation of therapy should begin at the time of diagnosis for patients with infantile disease. ERT can be held in late-onset patients with patients being observed every 6 – 12 months until the time the monitoring physician feels it is appropriate to start therapy. Studies have been conducted assessing the efficacy of ERT on cardiac symptoms in late-onset patients. Cardiovascular parameters were not impacted by use of ERT and therefore should not be the only presenting symptom when therapy is started.

References:

1. Lumizyme [prescribing information]. Cambridge, MA: Genzyme Corporation; March 2023.
2. Nexviazyme [prescribing information]. Cambridge, MA: Genzyme Corporation; April 2023.
3. Pombiliti [prescribing information]. Philadelphia, PA: Amicus Therapeutics US, LLC; September 2023.
4. Wang RW, Bodamer OA, Watson MS, et al. Lysosomal storage diseases: diagnostic confirmation and management of presymptomatic individuals. Genetic Med. 2011 May; 13 (3): 457 – 84.
5. Cupler EJ, Berger KI, Leshner RT, et al. Consensus treatment recommendations for late-onset Pompe disease. Muscle Nerve. 2012; 45: 319 – 33.
6. Kishnani PS, Steiner RD, Bali D, et al. Pompe disease diagnosis and management guideline. Genetic Med. 2006 May; 8 (5): 267 – 88.
7. Forsha D, Li JS, Smith B, et al. Cardiovascular abnormalities in late onset Pompe disease and response to enzyme replacement therapy. Genet Med. 2011 Jul; 13 (7): 625 – 31.

8. Schoser B, Roberts M, Byrne BJ, et al. Safety and efficacy of cipaglucosidase alfa plus miglustat versus alglucosidase alfa plus placebo in late-onset Pompe disease (PROPEL): an international, randomised, double-blind, parallel-group, phase 3 trial. Lancet Neurol. 2021 Dec; 20 (12): 1027 - 37.

Policy History		
#	Date	Change Description
2.1	Effective Date: 02/12/2024	UM medical management system update for MAPPO and BCNA for Pombiliti
2.0	Effective Date: 12/14/2023	Updated to include Pombiliti
1.9	Effective Date: 10/19/2023	UM medical management system update for BCBS and BCN for Pombiliti
1.8	Effective Date: 10/12/2023	Updated to remove prescriber requirement
1.7	Effective Date: 10/06/2022	Annual review of criteria was performed, no changes were made
1.6	Effective Date: 10/07/2021	Updated to include Nexviazyme and name changed from Lumizyme to the Enzyme Replacement for Pompe Disease Policy
1.5	Effective Date: 09/16/2021	UM medical management system update for BCN and BCBS for Nexviazyme
1.4	Effective Date: 09/01/2021	UM medical management system update for BCNA and MAPPO for Nexviazyme
1.3	Effective Date: 10/08/2020	New policy created for this drug. The Enzyme Replacement Therapy policy will be retired
1.2	Effective Date: 07/05/2017	UM medical management system update for MAPPO and BCNA for Lumizyme
1.1	Effective Date: 07/01/2015	UM medical management system update for BCN for Lumizyme
1.0	Effective Date: 01/01/2015	UM medical management system update for BCBS for Lumizyme

** The prescribing information for a drug is subject to change. To ensure you are reading the most current information it is advised that you reference the most updated prescribing information by visiting the drug or manufacturer website or http://dailymed.nlm.nih.gov/dailymed/index.cfm.*