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Effective Date: 10/03/2024

Enzyme Replacement Therapy for Gaucher's Disease

Cerezyme® (imiglucerase)

Elelyso® (taliglucerase)

Vpriv® (velaglucerase alfa)

HCPCS: Cerezyme: J1786; Elelyso: J3060; Vpriv: J3385

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 biochemical assay showing decreased glucocerebrosidase activity in white blood cells or skin fibroblasts AND genotyping revealing two pathogenic mutations of the glucocerebrosidase gene
 - d. Two symptomatic manifestations of the disease are present, such as anemia, thrombocytopenia, bone disease, hepatomegaly, or splenomegaly
 - e. 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.

This policy and any information contained herein is the property of Blue Cross Blue Shield of Michigan and its subsidiaries, is strictly confidential, and its use is intended for the P&T committee, its members and BCBSM employees for the purpose of coverage determinations.

Background Information:

- Gaucher's disease (GD) is an autosomal recessive lysosomal storage disorder caused by a mutation on the gene glucocerebrosidase 1. It is characterized by lysosomal accumulation of undegraded glucosylceramide due to a deficiency or insufficient activity of the enzyme glucocerebrosidase. There are three main disease variants with type 1 being considered non-neuronopathic and the least severe. Signs, symptoms, and severity vary greatly among patients with type 1 GD. The most common symptoms include anemia, thrombocytopenia, bone disease, including bone abnormalities and osteopenia/osteoporosis, and hepatosplenomegaly.
- The American College of Medical Genetics 2011 guidelines state Gaucher's disease is confirmed through identifying reduced glucocerebrosidase activity in peripheral leukocytes or skin fibroblasts and through genetic testing that shows the patient has two pathogenic mutations of the glucocerebrosidase gene.
- Enzyme replacement is the standard of care in GD. Three enzyme replacement therapies are FDA approved for long-term enzyme replacement in type 1 Gaucher's disease: Cerezyme, Elelyso, and Vpriv. Elelyso and Vpriv are approved for patients aged 4 years and older and Cerezyme for patients 2 years and older. Guidelines do not recommend the use of one enzyme replacement therapy over another.
- Treatment should be initiated when two of the following symptoms are present: hepatomegaly, splenomegaly, interstitial lung disease, pulmonary hypertension, anemia, thrombocytopenia, bony pain crisis, osteopenia, aseptic necrosis of the femoral head, bony lytic lesions, bony infarctions, or pathologic fractures. Symptom improvement is typically seen within 1 year from the start of therapy for major peripheral symptoms. Bone abnormalities may take up to several years to respond to therapy.
- Decisions regarding dose management should be made by physicians who are experienced in caring for patients with Gaucher's disease with the deciding factor for dosing being the achievement of therapeutic goals. Dose reductions can occur once significant improvements are achieved and maintained for at least a year. Patients with severe manifestations are not recommended to have dose reductions after initial improvement. Adult patients at increased risk who have achieved all therapeutic goals can have the dose decreased in small increments (approx. 15% - 20%) until their next scheduled evaluation in 3 - 6 months. These adult patients and all children are not recommended to have a long-term maintenance dose less than 30 U/kg every 2 weeks. Lower-risk adult patients may tolerate larger dose reductions of 25% - 50% per dose. The minimum long-term dose for lower-risk adults is recommended to be no less than 20 U/kg every 2 weeks.

References:

1. Cerezyme [prescribing information]. Cambridge, MA: Genzyme Corporation; July 2024.
2. Elelyso [prescribing information]. New York, NY: Pfizer, Inc.; July 2024.
3. Vpriv [prescribing information]. Lexington, MA: Shire Human Genetic Therapies, Inc.; July 2024.
4. Weinreb N et al. A benchmark analysis of the achievement of therapeutic goals for type 1 Gaucher disease patients treated with imiglucerase. *Am J Hematol.* 2008; 83(12): 890-95.
5. Gonzalez DE et al. Enzyme replacement therapy with velaglucerase alfa in Gaucher disease: Results from a randomized, double blind, multinational, Phase 3 study. *Am J Hematol.* 2013; 88(3): 166-71.
6. Weinreb NJ, Aggio MC, Andersson HC, et al. International Collaborative Gaucher Group (ICGG). Gaucher disease type 1: revised recommendations on evaluations and monitoring for adult patients. *Semin Hematol.* 2004; 41: 15 – 22.
7. 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 – 484.

Policy History		
#	Date	Change Description
1.8	Effective Date: 10/03/2024	Annual review – no changes to the criteria at this time
1.7	Effective Date: 01/01/2024	UM medical management system removal for MAPPO and BCNA for Cerezyme
1.6	Effective Date: 10/12/2023	Updated to remove prescriber requirements
1.5	Effective Date: 10/06/2022	Annual review – no changes to the criteria at this time
1.4	Effective Date: 10/07/2021	Annual review – no changes to the criteria at this time
1.3	Effective Date: 10/08/2020	New policy created for this disease state and class of drugs. The Enzyme Replacement Therapy policy will be retired
1.2	Effective Date: 07/05/2017	UM medical management system update for the following drugs to MAPPO and BCNA: Cerezyme, Eleyso, and VPriv
1.1	Effective Date: 02/01/2015	UM medical management system update for the following drugs for BCN: Cerazyme, Eleyso, and VPriv
1.0	Effective Date: 01/01/2015	UM medical management system update for the following drugs for BCBS: Cerazyme, Eleyso, and VPriv

* 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>.