Medical Policy

Utilization Management and Clinical Medical Policy

Policy Name:	Policy Number:	Scope:	Origination Date:	Effective Date:
Enzyme Replacement Therapy for Gaucher Disease: Imiglucerase (Cerezyme), Taliglucerase (Elelyso), Velaglucerase (Vpriv)	**MP-RX-FP-29-23**	☒ **MMM MA** ☒ **MMM MultiHealth**	**11/30/2023** **Last Review Date:** **7/22/2026**	**7/22/2026** **Frequently Revision:** **Annual**

Service Category:

- ☐ Anesthesia
- ☐ Surgery
- ☐ Radiology Procedures
- ☐ Pathology and Laboratory Procedures
- ☐ Medicine Services and Procedures
- ☐ Evaluation and Management Services
- ☐ DME/Prosthetics or Supplies
- ☒ Other: Part B Drugs

Service Description:

This document addresses the use of Imiglucerase (Cerezyme), Taliglucerase (Elelyso), Velaglucerase (Vpriv), a drug approved by the Food and Drug Administration (FDA) for the treatment of adults and children with a confirmed diagnosis of type 1 Gaucher disease.

Background Information:

Gaucher disease is a rare autosomal recessive disease characterized by a deficiency of glucocerebrosidase, an enzyme vital to the breakdown of glucosylceramide. Impairment of glucocerebrosidase leads to the collection of glucosylceramide in cells in the spleen, liver, bones and bone marrow. The primary clinical manifestations of Gaucher disease include splenomegaly, hepatomegaly, anemia, thrombocytopenia and skeletal complications. Symptomatic skeletal disease includes avascular necrosis, Erlenmeyer flask deformity, lytic disease, marrow infiltration, osteopenia, osteosclerosis, pathological fracture and joint deterioration. In some forms of Gaucher disease, the collection of glucosylceramide is seen in the brain, resulting in neurologic impairment and dysfunction. Manifestations of neurologic disease include seizures, eye movement and vision problems, poor coordination and progressive brain damage.

Diagnosis of Gaucher disease involves clinical examination, radiological imaging and laboratory testing. Glucocerebrosidase enzyme activity measurement and genotype testing of the glucocerebrosidase genome are important to avoid confusion with other diseases, including other lipidoses. Assessment and confirmation of neurologic disease must include a thorough neurological examination that includes eye movement examination, measurement of peripheral hearing, brain imaging, electroencephalography and age-appropriate neuropsychometry.

There are three presentations of Gaucher disease. Type 1 is the most common form of Gaucher disease, responsible for approximately 90% of all cases. The age of onset for type 1 Gaucher disease is highly variable with symptom presentation occurring anywhere from childhood to late adulthood. Alternatively, some individuals with this genotype of Gaucher disease never have any symptoms. Commonly seen symptoms of type 1 Gaucher disease include fatigue, cachexia, growth delay in childhood and easy bruising or bleeding. Individuals exhibit the visceral, hematologic and bone manifestations of disease which progress in severity over time. There is no neurologic involvement with type 1 Gaucher disease.

Type 2, also referred to as neuropathic Gaucher disease, is the rarest form of this disease. Type 2 Gaucher disease is characterized by early age of onset with serious, rapidly progressive neurologic deterioration and less severe

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visceral impairment. Widespread neurological dysfunction leading to severe seizures, rigidity and other motor dysfunction is common.

Type 3 Gaucher disease is a less severe neuropathic form of disease compared to type 2. The age of onset may occur anywhere from early childhood to late adulthood and the course of the disease is much more variable than with the other types. Type 3 Gaucher disease typically has a more aggressive presentation of visceral, hematologic and bone involvement than type 1 disease. Type 3 Gaucher disease does include neurologic dysfunction, with poor coordination, paralysis of the eye muscles, and dementia; however, the severity of these conditions is much less than with type 2 Gaucher disease.

Clinical studies have demonstrated the systemic manifestations of type 1 Gaucher disease, including visceral, hematologic and bone symptoms, respond well to enzyme replacement therapy (ERT) with glucocerebrosidase analogs. Similar benefits have been shown for systemic manifestations of type 3 Gaucher disease. Unfortunately, the glucocerebrosidase analogs do not pass through the blood-brain barrier and have minimal to no impact on the neurologic symptoms seen in type 2 and type 3 Gaucher disease.

Cerezyme, Elelyso and Vpriv are glucocerebrosidase analogs approved by the FDA for long-term treatment of type 1 Gaucher disease in adults and children who are exhibiting systemic disease manifestations. Small case series have been published that support the use of ERT for controlling visceral, bone and hematologic symptoms in type 3 Gaucher disease. Kaplan and colleagues (2013) published updated recommendations for the management of children with Gaucher disease. Enzyme replacement therapy was recommended for all symptomatic children with type 1 and 3 Gaucher disease to prevent debilitating and often irreversible disease progression.

The clinical trial programs for both Vpriv and Elelyso included participants who switched from Cerezyme to Vpriv or Elelyso. The FDA determined there was sufficient evidence of safety and efficacy in this situation and that Vpriv and Elelyso are alternatives for individuals currently receiving treatment for Gaucher disease with Cerezyme. The dosage and administration section of product labeling includes dosing recommendations for switching from Cerezyme to Vpriv or Elelyso.

Cerezyme, Elelyso and Vpriv all have black box warnings for life-threatening hypersensitivity reactions including anaphylaxis. Anaphylaxis has occurred during the early course of ERT and after extended duration of therapy. Initiate ERT in a healthcare setting with appropriate medical monitoring and support measures including access to cardiopulmonary resuscitation equipment. If a severe hypersensitivity reaction occurs, discontinue ERT and immediately initiate appropriate medical treatment including use of epinephrine. Inform individuals of the symptoms of life-threatening hypersensitivity reactions and to seek immediate medical care should symptoms occur.

Approved Indications

A. Type 1 Gaucher Disease in patients 4 years and older. (Elelyso, Vpriv)
B. Treatment of non-central nervous system (CNS) manifestations of Type 1 or Type 3 Gaucher disease in adults and pediatric patients. (Cerezyme)

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Other Uses

A. None.

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Medical Necessity Guidelines:

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.

Enzyme Replacement Therapy for Gaucher Disease [Cerezyme (imiglucerase), Elelyso (taliglucerase), Vpriv (velaglucerase)]

A. Criteria For Initial Approval (*Provider must submit documentation [such as office chart notes, lab results, pathology reports, imaging studies, and any other pertinent clinical information] supporting the patient's diagnosis for the drug and confirming that the patient has met **all** approval criteria.)*

Initial requests for enzyme replacement therapy for Gaucher disease [Cerezyme (imiglucerase), Elelyso (taliglucerase) and Vpriv (velaglucerase)] may be approved if the following criteria are met:

i. Individual is 18 years of age or older with a diagnosis of type 1 Gaucher disease and the following criteria are met:

   A. Documentation is provided that Type 1 Gaucher disease is confirmed by either (Weinreb, 2004; Wang, 2011):
      1. Deficiency in glucocerebrosidase enzyme activity as measured in the white blood cells or skin fibroblasts; **OR**
      2. Genotype testing indicates mutation of two alleles of the glucocerebrosidase genome; **AND**

   B. Documentation is provided that individual has clinically significant manifestations of Gaucher disease including (Andersson, 2005; Weinreb, 2004):
      1. Skeletal disease (such as but not limited to avascular necrosis, Erlenmeyer flask deformity, osteopenia or pathological fracture); **OR**
      2. Two or more of the following:
         a. Clinically significant hepatomegaly; **OR**
         b. Clinically significant splenomegaly; **OR**
         c. Hemoglobin at least 1.0 g/dL below lower limit of normal for age and sex; **OR**
         d. Platelet count less than or equal to 120,000 mm3

OR

ii. Individual is less than 18 years of age with a diagnosis of type 1 Gaucher disease and the following criteria are met:

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A. Documentation is provided that Type 1 Gaucher disease is confirmed by either (Kaplan, 2013; Wang, 2011):

1. Deficiency in glucocerebrosidase enzyme activity as measured in the white blood cells or skin fibroblasts;
OR

2. Genotype testing indicates mutation of two alleles of the glucocerebrosidase genome; **AND**

B. Individual has clinically significant manifestations of Gaucher disease (such as but not limited to hepatomegaly, splenomegaly, anemia, thrombocytopenia, skeletal disease or growth failure) (Andersson, 2005)

Note: For Elelyso (taliglucerase) and Vpriv (velaglucerase), use in pediatric patients should be limited to individuals 4 years of age or older.

OR

iii. Documentation is provided that individual is 18 years of age or older and the requested agent is Cerezyme (imiglucerase) for treatment of non-central nervous system (CNS) manifestations of Type 3 Gaucher disease and the following criteria are met (Label, Kaplan, 2013):

A. Type 3 Gaucher disease is verified by genotype testing indicating mutation of two alleles of the glucocerebrosidase genome (Kaplan, 2013; Wang, 2011); AND

B. Individual has clinically significant manifestations of Gaucher disease including (Andersson, 2005; Weinreb, 2004):

1. Skeletal disease (such as but not limited to avascular necrosis, Erlenmeyer flask deformity, osteopenia or pathological fracture); **OR**

2. Two or more of the following:

a. Clinically significant hepatomegaly; **OR**

b. Clinically significant splenomegaly; **OR**

c. Hemoglobin at least 1.0 g/dL below lower limit of normal for age and sex; **OR**

d. Platelet count less than or equal to 120,000mm3; **AND**

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C. There are neurological findings consistent with type 3 Gaucher disease based on neurological evaluation including brain imaging [magnetic resonance imaging (MRI) or computed tomography (CT)] and electroencephalography (EEG) (Vellodi, 2009)

OR

iv. Documentation is provided that individual is less than 18 years of age and the requested agent is Cerezyme (imiglucerase) for treatment of non-central nervous system (CNS) manifestations of Type 3 Gaucher disease and the following criteria are met (Label, Kaplan, 2013):

A. Type 3 Gaucher disease is verified by genotype testing indicating mutation of two alleles of the glucocerebrosidase genome (Kaplan, 2013; Wang, 2011); **AND**

B. Individual has clinically significant manifestations of Gaucher disease (such as but not limited to hepatomegaly, splenomegaly, anemia, thrombocytopenia, skeletal disease or growth failure) (Andersson, 2005); **AND**

C. There are neurological findings consistent with type 3 Gaucher disease based on neurological evaluation including brain imaging [magnetic resonance imaging (MRI) or computed tomography (CT)] and electroencephalography (EEG) (Vellodi, 2009).

B. Criteria For Continuation of Therapy

Continuation requests for enzyme replacement therapy for Gaucher disease (Cerezyme [imiglucerase], Elelyso [taliglucerase], Vpriv [velaglucerase]) may be approved if the following criterion is met

i. Individual continues to meet the applicable initial approval criteria for the requested agent and diagnosis; **AND**

ii. There is clinically significant improvement or stabilization in clinical signs and symptoms of disease, including but not limited to reduction or stabilization of spleen volume, reduction or stabilization of liver volume, improvement or stabilization of anemia, improvement or stabilization of thrombocytopenia, reduction in fatigue, improvement or stabilization of skeletal manifestations, or improvement or stabilization of growth parameters in pediatric individuals, when applicable.

C. Authorization Duration

i. Initial Approval Duration: 12 months
ii. Reauthorization Approval Duration: 12 months

D. Conditions Not Covered

Any other use is considered experimental, investigational, or unproven, including the following (this list may not be all inclusive):

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Enzyme replacement therapy for Gaucher disease [Cerezyme (imiglucerase), Elelyso (taliglucerase) and Vpriv (velaglucerase)] may not be approved for the following:

i. Individuals with type 2 Gaucher disease; **OR**
ii. Use of Cerezyme (imiglucerase) for treatment of central nervous system (CNS) manifestations of Type 3 Gaucher disease; **OR**
iii. Use in combination with another enzyme replacement therapy agent or substrate reduction therapy agent [Cerdelga (eliglustat), Zavesca (miglustat)] for the treatment of Gaucher disease; **OR**
iv. May not be approved when the above criteria are not met and for all other indications.

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Limits or Restrictions:

A. Therapeutic Alternatives

The list below includes preferred alternative therapies recommended in the approval criteria and may be subject to prior authorization.

i. N/A

B. Quantity Limitations

Approvals may be subject to dosing limits in accordance with FDA-approved labeling, accepted compendia, and/or evidence-based practice guidelines. The chart below includes dosing recommendations as per the FDA-approved prescribing information.

Drug	Dosage
Cerezyme (imiglucerase) 400 unit vial	• 2.5units/kg three times a week to 60 units/kg every 2 weeks
Elelyso (taliglucerase) 200 unit vial	• 60 units/kg every other week (every 2 weeks)
Vpriv (velaglucerase) 400 unit vial	• Patients Naïve to ERT: 60 units/kg every other week (every 2 weeks) • Patients being treated with stable imiglucerase dosages for Gaucher disease: Can switch to VPRIV at previous imiglucerase dose two weeks after last imiglucerase dose

Exceptions	
I.	Requests for higher dosing or more frequent administration may be approved when the treating physician has indicated that it is necessary based on the individual's disease severity or lack of response.
II.	Individuals currently being treated on a stable dosage of Cerezyme may be switched to Elelyso or Vpriv at the previous Cerezyme dosage.
III.	For Cerezyme, may approve alternate dosing of up to three times weekly.

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Codes Information:

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

ICD-10 Diagnostic Codes:

Codes	Description
E75.22	Gaucher disease

HCPCS Codes:

Codes	Description
J1786	Injection, imiglucerase, 10 units [Cerezyme]
J3060	Injection, taliglucerase alfa, 10 units [ELELYSO]
J3385	Injection, velaglucerase alfa, 100 units [VPRIV]
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

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Reference Information:

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2. DailyMed. Package inserts. U.S. National Library of Medicine, National Institutes of Health website. http://dailymed.nlm.nih.gov/dailymed/about.cfm. Accessed: June 11, 2023.
3. DrugPoints® System [electronic version]. Truven Health Analytics, Greenwood Village, CO. Updated periodically.
4. Grabowski GA, Barton NW, Pastores G, et al. Enzyme therapy in type 1 Gaucher disease: comparative efficacy of mannoseterminated glucocerebrosidase from natural and recombinant sources. Ann Intern Med. 1995;122:33-39.
5. Genzyme Corporation. (2026). *Cerezyme® (imiglucerase) for injection, for intravenous use: Prescribing information.*Revised January 2026. Accessed May 15, 2026.
6. Pfizer Inc. (2025). *Elelyso® (taliglucerase alfa) for injection, for intravenous use: Prescribing information.* Accessed May 15, 2026.
7. Takeda Pharmaceuticals America, Inc. (2024). *Vpriv® (velaglucerase alfa) for injection, for intravenous use: Prescribing information.* Accessed May 15, 2026.
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15. Zimran A, Brill-Almon E, Chertkoff R, et al. Pivotal trial with plant cell-expressed recombinant glucocerebrosidase, taliglucerase alfa, a novel enzyme replacement therapy for Gaucher disease. Blood. 2011; 118: 5767-5773

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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.

Policy History:

Type of Review	Summary of Changes	P&T Approval Date	UM/CMPC Approval Date
Annual Review	Updated the Background Information to add applicable boxed warnings/warnings and precautions for enzyme replacement therapies and to align FDA-approved indications for each product. Updated clinical criteria to align with the January 2026 Cerezyme prescribing information, including the revised FDA-approved indication for treatment of non-central nervous system (CNS) manifestations of Type 1 or Type 3 Gaucher disease in adults and pediatric patients. Clarified that Type 3 Gaucher disease criteria apply to Cerezyme only and do not apply to Elelyso or Vpriv. Updated continuation criteria to include clinical improvement or stabilization of disease manifestations. Updated Conditions Not Covered to clarify that Cerezyme is not covered for treatment of CNS manifestations of Type 3 Gaucher disease. Coding reviewed: No changes. Updated references list. Wording and formatting changes. Incorporated new policy template.	7/13/2026	7/22/2026
Annual Review	Minimal changes; word formatting. Coding reviewed: no changes.	8/25/2025	9/8/2025
Annual Review	Added the following statement to the initial approval criteria section: Provider must submit documentation [such as office chart notes, lab results, pathology reports, imaging studies, and any other pertinent clinical information] supporting the patient's diagnosis for the drug and confirming that the patient has met all approval criteria.); Added authorization duration; Format changes; Coding reviewed: No change	2/18/2025	3/6/2025
Policy Inception	Elevance Health's Medical Policy adoption.	N/A	11/30/2023