

PRIOR AUTHORIZATION POLICY

POLICY: Gaucher Disease – Enzyme Replacement Therapy – Cerezyme Prior Authorization Policy

- Cerezyme® (imiglucerase intravenous infusion – Genzyme)

REVIEW DATE: 04/10/2024; selected revision 07/17/2024

OVERVIEW

Cerezyme, an analogue of β -glucocerebrosidase, is indicated for the treatment of a confirmed diagnosis of **Type 1 Gaucher disease** in patients ≥ 2 years of age that results in at least one of the following: anemia, thrombocytopenia, bone disease, hepatomegaly, or splenomegaly.¹

Disease Overview

Gaucher disease is a rare autosomal recessive, inherited, lysosomal storage disorder caused by a deficiency of the lysosomal enzyme β -glucocerebrosidase.²⁻⁴ Glucocerebrosidase is responsible for the breakdown of glucosylceramide (GluCer) into glucose and ceramide. A deficiency of this enzyme is characterized by an excessive accumulation of GluCer in the visceral organs such as the liver, spleen, and bone marrow. GluCer remains stored within lysosomes causing enlarged lipid-laden macrophages called “Gaucher cells”.

Gaucher disease is classified into three phenotypes (Types 1 through 3).²⁻⁵ Type 1 is a non-neuronopathic variant with asymptomatic or symptomatic clinical manifestations of splenomegaly, hepatomegaly, anemia, thrombocytopenia, skeletal complications, and occasional lung involvement. Type 2 is an acute neuronopathic form characterized by an early onset (3 to 6 months of age) of rapidly progressive neurological disease with visceral manifestations; death generally occurs by the time patients reach 1 to 2 years of age. Type 3 is referred to as a chronic neuronopathic form and characterized by a later onset. Patients present with neurological, hematological, and visceral symptoms. Type 1 is most prevalent in the Western world, accounting for an estimated 94% of patients with Gaucher disease.^{2,6} Types 2 and 3 represent $< 1\%$ and 5% , respectively, in Europe, North America, and Israel.^{2,5} The diagnosis of Gaucher disease is established by demonstrating deficient β -glucocerebrosidase activity in leukocytes or fibroblasts, or mutations in the glucocerebrosidase gene.^{7,8}

Guidelines

Treatment guidelines for Type 1 Gaucher disease (non-neuronopathic form) recommend initiating enzyme replacement therapy (ERT) in patients with significant and/or progressive disease.^{9,10} Additionally, ERT should be initiated immediately in all patients with Type 3 Gaucher disease (chronic neuronopathic form).¹¹ Guidelines note that there is no evidence that ERT has reversed, stabilized, or slowed the progression of neurological involvement. However, ERT ameliorates systemic involvement (skeletal deterioration, visceromegaly, hematological abnormalities) in non-neuronopathic as well as chronic neuronopathic disease, ultimately enhancing the quality of life. Additionally, it is noted that higher doses may be needed to control visceral symptoms associated with chronic neuronopathic disease.

POLICY STATEMENT

Prior Authorization is recommended for prescription benefit coverage of Cerezyme. All approvals are provided for the duration noted below. Because of the specialized skills required for evaluation and diagnosis of patients treated with Cerezyme as well as the monitoring required for adverse events and long-term efficacy, approval requires Cerezyme to be prescribed by or in consultation with a physician who specializes in the condition being treated.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Cerezyme is recommended in those who meet one of the following criteria:

FDA-Approved Indication

- 1. Gaucher Disease – Type 1.** Approve for 1 year if the patient meets ALL of the following (A, B, and C):

Note: Type 1 Gaucher disease is also known as non-neuronopathic Gaucher disease.

- A) Patient is ≥ 2 years of age; AND
- B) The diagnosis is established by ONE of the following (i or ii):
 - i. Demonstration of deficient β -glucocerebrosidase activity in leukocytes or fibroblasts; OR
 - ii. Molecular genetic testing documenting biallelic pathogenic variants in the glucocerebrosidase (GBA) gene; AND
- C) Cerezyme is prescribed by or in consultation with a geneticist, endocrinologist, a metabolic disorder sub-specialist, or a physician who specializes in the treatment of lysosomal storage disorders.

Other Uses with Supportive Evidence

- 2. Gaucher Disease – Type 3.** Approve for 1 year if the patient meets ALL of the following (A, B, C, and D):

Note: Type 3 Gaucher disease is also known as chronic neuronopathic Gaucher disease.

- A) Patient is ≥ 2 years of age; AND
- B) The diagnosis is established by ONE of the following (i or ii):
 - i. Demonstration of deficient β -glucocerebrosidase activity in leukocytes or fibroblasts; OR
 - ii. Molecular genetic testing documenting biallelic pathogenic variants in the glucocerebrosidase (GBA) gene; AND
- C) The patient meets BOTH of the following (i and ii):
 - i. Medication is not being used for the management of neurological manifestations; AND
Note: Examples of neurological manifestations may include abnormal ocular movement, auditory impairment, cognitive impairment, and seizures.
 - ii. Medication is being used for the management of impaired growth, hematologic, or visceral symptoms; AND
Note: Examples of visceral symptoms include splenomegaly and hepatomegaly. Examples of hematologic symptoms include anemia and thrombocytopenia.
- D) Cerezyme is prescribed by or in consultation with a geneticist, endocrinologist, a metabolic disorder sub-specialist, or a physician who specializes in the treatment of lysosomal storage disorders.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Cerezyme is not recommended in the following situations:

- 1. Concomitant Use with Other Approved Therapies for Gaucher Disease.** Concomitant use with other treatments approved for Gaucher disease has not been evaluated. Of note, examples of medications approved for Gaucher disease include Cerdelga (eliglustat capsules), Elelyso (taliglucerase alfa intravenous infusion), Vpriv (velaglucerase alfa intravenous infusion), and Zavesca (miglustat capsules).

2. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

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