



miglustat (Zavesca®);
eliglustat (Cerdelga®)
EOCCO POLICY



Policy Type: PA/SP

Pharmacy Coverage Policy: EOCCO135

Description

Miglustat (Zavesca) and eliglustat (Cerdelga) are orally administered glucosylceramide synthase inhibitors.

Length of Authorization

- Initial: 12 months
- Renewal: 12 months

Quantity Limits

Product Name	Dosage Form	Indication	Quantity Limit
miglustat (generic Zavesca)	100 mg capsules	Mild to moderate type 1 Gaucher disease for whom enzyme replacement therapy is not a therapeutic option	90 capsules/30 days
miglustat (Zavesca)	100 mg capsules		
eliglustat (Cerdelga)	84 mg capsules	Type 1 Gaucher disease; CYP2D6 extensive metabolizers (EMs) or intermediate metabolizers (IMs)	56 capsules/28 days
		Type 1 Gaucher disease; CYP2D6 poor metabolizers (PMs)	28 capsules/28 days

Initial Evaluation

- I. Miglustat (Zavesca) or eliglustat (Cerdelga) may be considered medically necessary when the following criteria are met:
 - A. Member is 18 years of age or older; **AND**
 - B. Medication is prescribed by, or in consultation with a provider that specializes in the treatment of Gaucher disease (e.g., endocrinologist, geneticist, hematologist, etc.); **AND**
 - C. Will not be used in combination with other medications used to treat type 1 Gaucher disease [e.g., imiglucerase (Cerezyme), taliglucerase (Ellyso), velaglucerase (Vpriv), other agents listed in this policy, etc.]; **AND**
 - D. A diagnosis of **type 1 Gaucher disease** when the following are met:
 1. Diagnosis is confirmed by **one** of the following:

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- i. Deficiency of glucocerebrosidase (acid β -glucosidase) enzyme activity in peripheral blood leukocytes or cultured fibroblasts; **OR**
 - ii. Genetic testing confirming mutation in glucocerebrosidase (*GBA*) gene; **AND**
 2. The request is for generic miglustat or brand miglustat (Zavesca); **AND**
 - i. Treatment with **ONE** enzyme replacement therapy (ERT) [e.g., imiglucerase (Cerezyme), taliglucerase (Elelyso), velaglucerase (Vpriv)] has been ineffective, contraindicated, or not tolerated; **AND**
 - ii. If the request is for brand miglustat (Zavesca), the member has an intolerance or contraindication to generic miglustat; **OR**
 3. The request is for eliglustat (Cerdelga); **AND**
 - i. The member has undergone CYP2D6 genotyping by an FDA-cleared test and is classified as one of the following: [Note: eliglustat (Cerdelga) is not indicated for ultra-rapid metabolizers]
 - a. Poor Metabolizer (PM); **OR**
 - b. Intermediate Metabolizer (IM); **OR**
 - c. Extensive Metabolizer
- II. Miglustat (Zavesca) and/or eliglustat (Cerdelga) are considered investigational when used for all other conditions, including but not limited to:
 - A. Type 3 Gaucher disease
 - B. Gangliosidases (GM1 and GM2)
 - C. Cystic Fibrosis
 - D. Pompe Disease
 - E. HIV Infection
 - F. Niemann-Pick Disease
 - G. Tay-Sachs Disease
 - H. Sandhoff Disease

Renewal Evaluation

- I. Member has received a previous prior authorization approval for this agent through this health plan; **AND**
- II. Member is not continuing therapy based off being established on therapy through samples, manufacturer coupons, or otherwise. Initial policy criteria must be met for the member to qualify for renewal evaluation through this health plan; **AND**

- III. Miglustat (Zavesca) or eliglustat (Cerdelga) will not be used in combination with other medications used for the treatment of type 1 Gaucher disease (i.e. will be used as monotherapy); **AND**
- IV. Member has exhibited improvement or stability of disease manifestations [e.g., improvements in mean liver volume and/or spleen volumes, changes in hemoglobin levels and platelet count, etc.] and/or symptoms [e.g., fatigue, bleeding episodes, bruising, bone pain, etc.]

Supporting Evidence

- I. Miglustat (Zavesca) obtained FDA approval for treatment of type 1 Gaucher disease in 2003 based on the result of two open-label, uncontrolled studies and one randomized, open-label, active-controlled study. In the uncontrolled open-label trials, patients experienced a significant mean reduction in liver and spleen volume from baseline and non-significant change in platelet counts and hemoglobin concentration. These results were maintained or further decreased during the extension period of both trials. In the randomized, active-controlled study, patients were randomized to receive miglustat (Zavesca) alone, imiglucerase (Cerezyme) alone, or miglustat (Zavesca) in combination with imiglucerase (Cerezyme). There were no significant differences between the groups for mean absolute changes in liver and spleen volume and hemoglobin concentration. However, there was a significant reduction in platelet counts between the miglustat (Zavesca) and imiglucerase (Cerezyme) monotherapy groups. During the open-label extension period, all patients were transitioned to miglustat (Zavesca) monotherapy and no significant changes liver volume, spleen volume, or hemoglobin concentration were observed.
- II. Eliglustat (Cerdelga) obtained FDA approval for treatment of type 1 Gaucher disease under priority review in 2014 based on the results of one randomized, double-blind, placebo-controlled study in treatment naïve patients and one randomized, open-label, active-controlled, non-inferiority study in patients transitioning from enzyme replacement therapy.
- III. A randomized, double-blind, placebo-controlled trial investigated eliglustat (Cerdelga) against placebo in type 1 Gaucher disease treatment naïve patients. The results showed a statistically significant improvement in percentage change in spleen volume and liver volume, absolute change in hemoglobin level, and percentage change in platelet count from baseline to nine months compared to placebo. During the open label extension phase, improvements in spleen and liver volume, hemoglobin level, and platelet count continued through the two-year trial duration and through four years in a separate uncontrolled trial.
- IV. A randomized, open-label, active-controlled, non-inferiority study evaluated eliglustat (Cerdelga) versus imiglucerase in patients who were previously treated with enzyme replacement therapy. The primary composite endpoint required stability in all four component domains (hemoglobin level, platelet count, liver volume and spleen volume) based on changes

- between baseline and 12 months according to pre-specified thresholds of change. Eliglustat (Cerdelga) met the criteria to be declared non-inferior to imiglucerase in maintaining patient stability. During the open-label extension phase, patients continued to show stability, as previously defined in the initial 12 months of the trial, at two years of treatment.
- V. Patients enrolled in the studies for miglustat (Zavesca) and eliglustat (Cerdelga) were 18 and older. The safety and/or efficacy of use in pediatric and adolescent patients has not been evaluated.
 - VI. Miglustat (Zavesca) and eliglustat (Cerdelga) have largely been studied as monotherapy, with the exception of one treatment arm in a single study involving miglustat (Zavesca). Long-term safety and efficacy of either agent used in combination with enzyme replacement therapy, or other agents used to treat type 1 Gaucher disease has not been evaluated.
 - VII. Gaucher disease is a rare autosomal recessive lysosomal storage disorder (LCD) that is caused by mutations in the glucocerebrosidase enzyme (*GBA*) and/or deficiency of the enzyme glucocerebrosidase. Diagnosis of Gaucher disease type 1 should be confirmed by a physician specializing in the treatment of Gaucher disease via blood tests to confirm deficiency of the glucocerebrosidase enzyme (acid β -glucosidase) in peripheral leukocytes or cultured fibroblasts or genetic testing to confirm mutation in *GBA* prior. Treatment is not necessary for all patients with Gaucher disease type 1, as some patients are asymptomatic. However, treatment is generally lifelong for symptomatic patients once treatment is initiated.
 - VIII. According to recent guidelines, treatment with enzyme replacement therapy (ERT) remains first-line treatment for type 1 Gaucher disease and is delivered intravenously. Miglustat (Zavesca) is a second line oral treatment indicated when ERT is no longer accepted by the patient or cannot be tolerated. Eliglustat (Cerdelga) may be used as a first-line treatment alternative to ERT.
 - IX. Miglustat (Zavesca) is commonly discontinued due to adverse effects including diarrhea (observed in over 85% of patients during clinical trials), weight loss (~65%), tremor and peripheral neuropathy. Eliglustat (Cerdelga) is generally better tolerated with the most common adverse events comprising of arthralgia (45%), back pain (12%), fatigue (14%) and headache (13 to 40%).
 - X. Miglustat (Zavesca) is contraindicated in women who are or may become pregnant. Providers should discuss the risks of teratogenicity when administered to women of reproductive potential.
 - XI. Eliglustat (Cerdelga) was found to be heavily affected by a patient's CYP2D6 metabolizer status and therefore requires CYP2D6 genotyping before prescribing. Recommended dosing differs between poor metabolizers and intermediate/extensive metabolizers. Eliglustat (Cerdelga) is not recommended for ultra-rapid metabolizers due to difficulty obtaining reliable blood levels of the drug. Concurrent use of strong CYP2D6 inhibitors (e.g., bupropion, fluoxetine, paroxetine, quinidine, etc.) is not recommended and these agents should be discontinued prior to initiating therapy with eliglustat (Cerdelga).

Investigational or Not Medically Necessary Uses

- I. Miglustat (Zavesca) and/or eliglustat (Cerdelga) have not been FDA-approved, or sufficiently studied for safety and efficacy for the conditions or settings listed below:
 - A. Type 3 Gaucher disease
 - B. Gangliosidases (GM1 and GM2)
 - C. Cystic Fibrosis
 - D. Pompe Disease
 - E. HIV Infection
 - F. Niemann-Pick Disease
 - G. Tay-Sachs Disease
 - H. Sandhoff Disease

References

1. Stirnemann J, Belmatoug N, Camou F, et al. A Review of Gaucher Disease Pathophysiology, Clinical Presentation and Treatments. *Int. J. Mol. Sci.* 2017, 18, 441; doi: 10.3390/ijms18020441
2. Gary SE, Ryan E, et al. Recent advances in the diagnosis and management of Gaucher disease. *Expert Rev Endocrinol Metab.* 2018 March; 13(2):107-118. Doi:10.1080/17446651.2018.1445524.
3. Wang RY, Bodamer OA, et al. Lysosomal storage diseases: Diagnostic confirmation and management of presymptomatic individuals. ACMG Standards and Guidelines. *Genetics in Medicine.* 2011 May; 13(5).
4. Miglustat [Prescribing Information]. Actelion Pharmaceuticals US, Inc.: South San Francisco, CA. November 2017.
5. Eliglustat [Prescribing Information]. Genzyme Ireland, Ltd.: Waterford, Ireland. August 2018.

Policy Implementation/Update:

Action and Summary of Changes	Date
Transitioned criteria to new policy format and combined previous miglustat and eliglustat criteria into one policy and added the following requirements: age 18 and older, prescribed by or in consultation with specialist, used as monotherapy and diagnosis confirmed by genetic and/or blood testing	11/2020
Miglustat (Zavesca) criteria created	05/2018
Eliglustat (Cerdelga) criteria created	11/2014