

PHARMACY POLICY STATEMENT

Common Ground Healthcare Cooperative (CGHC)

DRUG NAME	Zavesca (miglustat)
BENEFIT TYPE	Pharmacy
STATUS	Prior Authorization Required

Zavesca is a substrate reduction therapy, FDA approved in 2003 for the treatment of Gaucher disease type 1. Gaucher disease is a rare, inherited, lysosomal storage disorder. In Gaucher disease, mutations of the GBA gene cause deficiency of the enzyme glucocerebrosidase (acid beta-glucosidase), resulting in the accumulation of glucocerebroside (glucosylceramide [GLC]) in the lysosomes of macrophages to form "Gaucher cells," especially in the bone marrow, spleen, and liver. Prominent symptoms include hepatosplenomegaly, anemia, thrombocytopenia, and skeletal problems. Type 1 Gaucher disease is the most common form and does not affect the central nervous system. In contrast to standard of care enzyme replacement therapy (ERT), Zavesca reduces synthesis of the accumulating substrate to compensate for its impaired degradation.

Miglustat may also be used off-label for the treatment of Niemann-Pick disease type C, as supported by guidelines. As of 2024, Miplyffa is FDA approved for use with miglustat for NPC.

Zavesca (miglustat) will be considered for coverage when the following criteria are met:

Gaucher disease type 1 (GD1)

For **initial** authorization:

1. Member is at least 18 years of age; AND
2. Medication must be prescribed by or in consultation with a geneticist, hematologist, or metabolic specialist; AND
3. Member has a diagnosis of mild to moderate Gaucher disease type 1, confirmed by documentation of at least one of the following:
 - a) Reduced activity of glucocerebrosidase via enzyme assay (0 to 15% of normal), and/or
 - b) Molecular genetic test documenting 2 mutations (biallelic variants) of the GBA gene; AND
4. Member is NOT eligible for enzyme replacement therapy (e.g., hypersensitivity, poor venous access, failed after at least 6 months); AND
5. Member exhibits at least one of the following disease manifestations:
 - a) Anemia,
 - b) Thrombocytopenia,
 - c) Spleen and/or liver enlargement; AND
6. Member does NOT have any of the following:
 - a) Neurologic symptoms possibly suggestive of type II or III Gaucher disease (i.e., supranuclear gaze palsy, cognitive decline, epilepsy, myoclonus and/or ataxia),
 - b) Concomitant use with Cerdelga (eliglustat) or ERT.
7. **Dosage allowed/Quantity limit:** 100 mg three times a day (QL: 90 capsules per 30 days).

If all the above requirements are met, the medication will be approved for 12 months.

For reauthorization:

1. Chart notes must document improvement in one or more of the following parameters compared to baseline:
 - a) Hemoglobin level
 - b) Platelet count
 - c) Spleen and/or liver volumes

If all the above requirements are met, the medication will be approved for an additional 12 months.

Niemann-Pick disease type C (NPC)

For initial authorization:

1. Medication must be prescribed by or in consultation with a neurologist, metabolic specialist, or geneticist; AND
2. Member has a diagnosis of NPC confirmed by one of the following:
 - a) Genetic testing that shows mutations in both alleles of the *NPC1* or *NPC2* gene, or
 - b) Mutation in one allele of *NPC1* or *NPC2*, AND either elevated plasma biomarkers (i.e., cholestane-triol or trihydroxy-cholanoyl-glycine and/or lysoSM-509 with normal or slightly elevated lysoSM) OR positive filipin testing; AND
3. Member has at least 1 neurological sign of disease; AND
4. Member does NOT have advanced neurological disease.
5. **Dosage allowed/Quantity limit:** Up to 200 mg three times a day. (QL: 180 capsules per 30 days)

If all the above requirements are met, the medication will be approved for 12 months.

For reauthorization:

1. Chart notes must document improvement or stabilization of neurological signs and symptoms compared to baseline.

If all the above requirements are met, the medication will be approved for an additional 12 months.

CareSource considers Zavesca (miglustat) not medically necessary for the treatment of conditions that are not listed in this document. For any other indication, please refer to the Off-Label policy.

DATE	ACTION/DESCRIPTION
06/29/2017	New policy for Zavesca created.
08/06/2021	Transferred to new template. Added references. Added specialist requirement. Elaborated on diagnostic requirement. Removed restriction of ERT within last 6 months. Removed baseline measures requirement. Added that they must present with symptoms. Changed renewal criteria. Changed approval durations from 6 months to 12 months.
05/11/2023	Added references. Clarified that 2 mutations of the GBA gene should be present. Removed bone outcomes from reauth section; was not measured in clinical trials and unlikely to be evident at 12 mo.
10/24/2024	Added criteria for diagnosis of NPC (approved in combination with Miplyffa; off-label as monotherapy or in combination with Aqneursa).

References:

1. Zavesca [package insert]. South San Francisco, CA: Actelion Pharmaceuticals US, Inc.; 2022.
2. Cox T, Lachmann R, Hollak C, et al. Novel oral treatment of Gaucher's disease with N-butyldeoxynojirimycin (OGT 918) to decrease substrate biosynthesis. *Lancet*. 2000;355(9214):1481-1485. doi:10.1016/S0140-6736(00)02161-9
3. Elstein D, Hollak C, Aerts JM, et al. Sustained therapeutic effects of oral miglustat (Zavesca, N-butyldeoxynojirimycin, OGT 918) in type I Gaucher disease. *J Inherit Metab Dis*. 2004;27(6):757-766. doi:10.1023/B:BOLI.0000045756.54006.17
4. Cox TM, Aerts JM, Andria G, et al. The role of the iminosugar N-butyldeoxynojirimycin (miglustat) in the management of type I (non-neuronopathic) Gaucher disease: a position statement. *J Inherit Metab Dis*. 2003;26(6):513-526. doi:10.1023/a:1025902113005
5. Elstein D, Dweck A, Attias D, et al. Oral maintenance clinical trial with miglustat for type I Gaucher disease: switch from or combination with intravenous enzyme replacement. *Blood*. 2007;110(7):2296-2301. doi:10.1182/blood-2007-02-075960
6. Biegstraaten M, van Schaik IN, Aerts JM, Hollak CE. 'Non-neuronopathic' Gaucher disease reconsidered. Prevalence of neurological manifestations in a Dutch cohort of type I Gaucher disease patients and a systematic review of the literature. *J Inherit Metab Dis*. 2008;31(3):337-349. doi:10.1007/s10545-008-0832-y
7. Stone WL, Basit H, Master SR. Gaucher Disease. [Updated 2022 Jun 7]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK448080/>
8. Pastores GM, Hughes DA. Gaucher Disease. 2000 Jul 27 [Updated 2023 Mar 9]. In: Adam MP, Mirzaa GM, Pagon RA, et al., editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK1269/>
9. Dardis A, Michelakakis H, Rozenfeld P, et al. Patient centered guidelines for the laboratory diagnosis of Gaucher disease type 1. *Orphanet J Rare Dis*. 2022;17(1):442. Published 2022 Dec 21. doi:10.1186/s13023-022-02573-6
10. Torralba-Cabeza MÁ, Morado-Arias M, Pijierro-Amador A, Fernández-Canal MC, Villarrubia-Espinosa J. Recommendations for oral treatment for adult patients with type 1 Gaucher disease [published online ahead of print, 2022 Jun 5]. *Rev Clin Esp (Barc)*. 2022;S2254-8874(22)00043-1. doi:10.1016/j.rceng.2022.02.008
11. Geberhiwot T, Moro A, Dardis A, et al. Consensus clinical management guidelines for Niemann-Pick disease type C. *Orphanet J Rare Dis*. 2018;13(1):50. Published 2018 Apr 6. doi:10.1186/s13023-018-0785-7
12. Patterson MC, Clayton P, Gissen P, et al. Recommendations for the detection and diagnosis of Niemann-Pick disease type C: An update. *Neurol Clin Pract*. 2017;7(6):499-511. doi:10.1212/CPJ.0000000000000399
13. Patterson MC, Vecchio D, Prady H, Abel L, Wraith JE. Miglustat for treatment of Niemann-Pick C disease: a randomised controlled study. *Lancet Neurol*. 2007;6(9):765-772. doi:10.1016/S1474-4422(07)70194-1
14. Mengel E, Patterson MC, Da Riol RM, et al. Efficacy and safety of arimoclomol in Niemann-Pick disease type C: Results from a double-blind, randomised, placebo-controlled, multinational phase 2/3 trial of a novel treatment. *J Inherit Metab Dis*. 2021;44(6):1463-1480. doi:10.1002/jimd.12428

Effective date: 04/01/2025

Revised date: 10/24/2024