

## Vimizim® (elosulfase alfa) (Intravenous)

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Effective Date: 01/01/2020

Review Date: 12/20/2019, 11/23/2020, 7/15/2021, 02/17/2022, 01/26/2023, 12/07/2023, 01/04/2024,  
01/15/2025

Scope: Medicaid, Commercial, Medicare-Medicaid Plan (MMP)

### I. Length of Authorization

Coverage will be for 6 months and may be renewed.

### II. Dosing Limits

#### A. Quantity Limit (max daily dose) [NDC Unit]:

- Vimizim 5mg/5ml: 184 vials every 28 days

#### B. Max Units (per dose and over time) [HCPCS Unit]:

- 230 billable units (230mg) every 7 days

### III. Summary of Evidence

Vimizim (elosulfase alfa) is a hydrolytic lysosomal glycosaminoglycan (GAG)-specific enzyme indicated for the treatment of Morquio A syndrome (mucopolysaccharidosis type IVA), a rare lysosomal storage disorder. Clinical trials evaluating its efficacy and safety have demonstrated significant improvements in endurance, respiratory function, and walking capacity in patients with Morquio A syndrome. In phase 3 studies, Vimizim has shown to improve the 6-minute walk test distance and respiratory function, as evidenced by improvements in forced vital capacity (FVC) and maximum voluntary ventilation (MVV). These improvements in respiratory function contribute to enhanced quality of life and reduced respiratory complications in patients with Morquio A syndrome. Adverse events commonly reported include infusion-related reactions, fever, and headache.

### IV. Initial Approval Criteria<sup>1,4,5,6</sup>

Coverage is provided in the following conditions:

MMP members who have previously received this medication within the past 365 days are not subject to Step Therapy Requirements.

**Universal Criteria**

- Patient is 5 years of age or older; **AND**

**Mucopolysaccharidosis Type IVA (MPS IVA, Morquio A Syndrome)**

- Documented diagnosis of Mucopolysaccharidosis type IVA with biochemical/genetic confirmation by one of the following:
  - Absence or marked reduction in N-acetylgalactosamine 6-sulfatase (GALNS) enzyme activity in cultured fibroblasts or leukocytes; **OR**
  - Detection of biallelic pathogenic mutations in the *GALNS* gene by genetic molecular testing (i.e., sequence analysis and/or deletion/duplication analysis); **AND**
- Documented baseline value for one or more of the following:
  - Endurance tests [e.g., six minute walk test (6-MWT) or timed 25-foot walk test (T25FW), three minute stair climb test (3-MSCT)],
  - Pulmonary function tests [e.g., maximum voluntary ventilation (MVV), percent predicted forced vital capacity(FVC)], etc,
  - Urine keratan sulfate (KS) or urine glycosaminoglycan (GAG) levels.

**V. Renewal Criteria<sup>1,4,5,6</sup>**

- Patient continues to meet universal and other indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section IV; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include: anaphylaxis and hypersensitivity reactions, acute respiratory complications, spinal/cervical cord compression, etc.; **AND**
- Patient has shown a response to therapy as evidenced by one or more of the following markers when compared to pretreatment baseline values:
  - Stability or improvement in endurance tests (e.g., six minute walk test ([6-MWT], timed 25-foot walk test [T25FW], three minute stair climb test [3-MSCT]);
  - Stability or improvement in pulmonary function tests (e.g., FVC, etc.)
  - Stability or reduction in urine keratan sulfate (KS) or urine glycosaminoglycan (GAG)

**VI. Dosage/Administration<sup>1,4,5,6</sup>**

Indication	Dose
Mucopolysaccharidosis Type IVA	2 mg/kg administered once every week as an intravenous (IV) infusion

(MPS IVA; Morquio A Syndrome)	
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## VII. Billing Code/Availability Information

### HCPCS Code:

- J1322 – Injection, elosulfase alfa, 1mg: 1 billable unit = 1mg

### NDC:

- Vimizim 5mg/5ml injection: 68135-0100-xx

## VIII. References

1. Vimizim [package insert]. Novato, CA; Biomarin Pharmaceutical Inc.; January 2021. Accessed January 2025.
2. Regier DS, Oetgen M, Tanpaiboon P. Mucopolysaccharidosis Type IVA. In: Pagon RA, Adam MP, Bird TD, Dolan CR, Fong CT, Smith RJH, Stephens K, editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2014. 2013 Jul 11 [updated 2014 Mar 13].
3. Hendriksz CJ, Berger KI, Giugliani R, et al. International Guidelines for the Management and Treatment of Morquio A Syndrome. *Am J Med Genet A*. 2015 Jan; 167(1): 11–25. Published online 2014 Oct 24. doi: 10.1002/ajmg.a.36833
4. Regier DS, Oetgen M, Tanpaiboon P. Mucopolysaccharidosis Type IVA. 2013 Jul 11 [Updated 2016 Mar 24]. In: Adam MP, Ardinger HH, Pagon RA, et al., editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2019. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK148668/>
5. Schweighardt B, Tompkins T, Lau K, et al. Immunogenicity of Elosulfase Alfa, an Enzyme Replacement Therapy in Patients With Morquio A Syndrome: Results From MOR-004, a Phase III Trial. *Clin Ther*. 2015 May 1;37(5):1012-1021.e6. doi: 10.1016/j.clinthera.2014.11.005. Epub 2014 Dec 6.
6. Hendriksz CJ, Burton B, Fleming TR, et al. Efficacy and safety of enzyme replacement therapy with BMN 110 (elosulfase alfa) for Morquio A syndrome (mucopolysaccharidosis IVA): a phase 3 randomised placebo-controlled study. *J Inherit Metab Dis*. 2014 Nov;37(6):979-90. doi: 10.1007/s10545-014-9715-6. Epub 2014 May 9.
7. [Zhou J, Lin J, Leung WT, Wang L. A basic understanding of mucopolysaccharidosis: Incidence, clinical features, diagnosis, and management. \*Intractable Rare Dis Res\*. 2020 Feb;9\(1\):1-9. Doi: 10.5582/irdr.2020.01011.](#)
8. [Shapiro EG, Eisengart JB. The natural history of neurocognition in MPS disorders: A review. \*Mol Genet Metab\*. 2021 May;133\(1\):8-34. Doi: 10.1016/j.ymgme.2021.03.002. Epub 2021 Mar 11. PMID: 33741271.](#)

## Appendix 1 – Covered Diagnosis Codes

ICD-10	Description
E76.210	Morquio A mucopolysaccharidoses

## Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage determinations. Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determinations (NCDs) and/or Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. Local Coverage Articles (LCAs) may also exist for claims payment purposes or to clarify benefit eligibility under Part B for drugs which may be self-administered. The following link may be used to search for NCD, LCD, or LCA documents: <https://www.cms.gov/medicare-coverage-database/search.aspx>. Additional indications, including any preceding information, may be applied at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD/Articles): N/A

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp (WPS)
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.
8	MI, IN	Wisconsin Physicians Service Insurance Corp (WPS)
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA, LLC
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA, LLC
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC

### Policy Rationale:

Vimizim was reviewed by the Neighborhood Health Plan of Rhode Island Pharmacy & Therapeutics (P&T) Committee. Neighborhood adopted the following clinical coverage criteria to ensure that its members use Vimizim according to Food and Drug Administration (FDA) approved labeling and/or relevant clinical literature. Neighborhood worked with network prescribers and pharmacists to draft these criteria. These criteria will help ensure its members are using this drug for a medically accepted indication, while minimizing the risk for adverse effects and ensuring more cost-effective options are used first, if applicable and appropriate. For INTEGRITY (Medicare-

Medicaid Plan) members, these coverage criteria will only apply in the absence of National Coverage Determination (NCD) or Local Coverage Determination (LCD) criteria. Neighborhood will give individual consideration to each request it reviews based on the information submitted by the prescriber and other information available to the plan.