Original Effective Date: 04/2015
Current Effective Date: 09/29/2024
Last P&T Approval/Version: 07/31/2024
Next Review Due By: 07/2025
Policy Number: C7068-A

Vimizim (elosulfase alfa)

PRODUCTS AFFECTED

Vimizim (elosulfase alfa)

COVERAGE POLICY

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Coverage Guideline must be read in its entirety to determine coverage eligibility, if any. This Coverage Guideline provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide Molina Healthcare complete medical rationale when requesting any exceptions to these guidelines.

Documentation Requirements:
Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational, or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

DIAGNOSIS:
Mucopolysaccharidosis IVA (MPS IVA, Morquio A syndrome)

REQUIRED MEDICAL INFORMATION:
This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. If a drug within this policy receives an updated FDA label within the last 180 days, medical necessity for the member will be reviewed using the updated FDA label information along with state and federal requirements, benefit being administered and formulary preferencing. Coverage will be determined on a case-by-case basis until the criteria can be updated through Molina Healthcare, Inc. clinical governance. Additional information may be required on a case-by-case basis to allow for adequate review. When the requested drug product for coverage is dosed by weight, body surface area or other member specific measurement, this data element is required as part of the medical necessity review. The Pharmacy and Therapeutics Committee has determined that the drug benefit shall be a mandatory generic and that generic drugs will be dispensed whenever available.

A. MUCOPOLYSACCHARIDOSIS IVA (MORQUIO A SYNDROME):
   1. Documented Diagnosis of mucopolysaccharidosis IVA (MPS IVA, Morquio A syndrome)

AND

2. Documentation diagnosis was confirmed by: Documented reduced fibroblast or leukocyte GALNS enzyme activity OR Molecular genetic testing of GALNS [DOCUMENTATION REQUIRED]
AND
3. Documentation that member has at least ONE of the following symptoms of the disease: kyphoscoliosis, genu valgum, pectus carinatum, gait disturbance, growth deficiency, short stature, spinal abnormalities, chest abnormalities, joint abnormalities, respiratory compromise, cardiac valve abnormalities, muscular weakness, visual impairment, hearing loss, or dental abnormalities and oral health challenges
AND
4. Documentation of baseline 6-minute walk test (6-MWT) indicating the member walked at least 30 meters in six minutes [DOCUMENTATION REQUIRED]

CONTINUATION OF THERAPY:

A. MUCOPOLYSACCHARIDOSIS IVA (MORQUIO A SYNDROME):
1. Prescriber attests to or clinical reviewer has found no evidence of intolerable adverse effects or drug toxicity (e.g., anaphylaxis, severe allergic reactions, etc.)
AND
2. Documentation of positive clinical response to therapy from baseline (i.e., stabilization or improvement in symptoms, 6-MWT) [DOCUMENTATION REQUIRED]

DURATION OF APPROVAL:

Initial authorization: 12 months, Continuation of Therapy: 12 months

PRESCRIBER REQUIREMENTS:

Prescribed by, or in consultation with, a board-certified geneticist, metabolic specialist, pediatric neurologist, pediatric developmentalist, endocrinologist, or a physician who specializes in the treatment of lysosomal storage disorders, or a physician experienced in the management of mucopolysaccharidoses (MPS). [If prescribed in consultation, consultation notes must be submitted with initial request and reauthorization requests]

AGE RESTRICTIONS:

5 years of age and older

QUANTITY:

2 mg/kg body weight as an IV infusion once weekly

PLACE OF ADMINISTRATION:

The recommendation is that infused medications in this policy will be for pharmacy or medical benefit coverage administered in a place of service that is a non-hospital facility-based location as per the Molina Health Care Site of Care program.

Note: Site of Care Utilization Management Policy applies for Vimizim (elosulfase alfa). For information on site of care, see Specialty Medication Administration Site of Care Coverage Criteria (molinamarketplace.com)

DRUG INFORMATION

ROUTE OF ADMINISTRATION:

Intravenous

DRUG CLASS:

Mucopolysaccharidosis IV (MPS IV) - Agents

FDA-APPROVED USES:
Indicated for patients with mucopolysaccharidosis type IVA (MPS IVA; Morquio A syndrome)

E76.210 Morquio A mucopolysaccharidoses

COMPENDIAL APPROVED OFF-LABELED USES:
None

APPENDIX

APPENDIX:
None

BACKGROUND AND OTHER CONSIDERATIONS

BACKGROUND:
MPS IVA is a rare and debilitating genetic disorder which is caused by a deficiency of the enzyme, N-acetylgalactosamine-6 sulfatase, which results in excessive lysosomal storage of keratan sulfate in many tissues and organs. Accumulation of keratan sulfate causes systemic skeletal dysplasia, short stature, and joint abnormalities, which limit mobility and endurance. Malformation of thorax impairs respiratory function and malformation of neck vertebrae and ligament weakness causes cervical spinal instability and, potentially, cord compression. Other symptoms include hearing loss, corneal clouding, and heart valve disease.

Vimizim (elosulfase alfa) is the first pharmacotherapy available for mucopolysaccharidosis type IVA (MPS IVA; Morquio A Syndrome) syndrome and the first enzyme replacement therapy (ERT) designed to target the underlying cause of MPS IVA syndrome, a rare, progressive, debilitating disorder caused by a deficiency in the enzyme N-acetylgalactosamine-6 sulfatase (GALNS).
Elosulfase alfa is indicated for the treatment of MPS IVA in adults and pediatric members 5 years and older.
Elosulfase alfa is intended to replace GALNS in the metabolic pathway.
Elosulfase alfa is a recombinant form of human GALNS and is identical to the naturally occurring human lysosomal enzyme in terms of the amino acid sequence and N-linked glycosylation.
Elosulfase alfa provides exogenous GALNS that is taken up into the lysosomes and catabolyzes the GAGs keratan sulfate and chondroitin-6-sulfate. Elosulfase alfa uptake by cells into lysosomes is most likely mediated by the binding of mannose-6-phosphate-terminated oligosaccharide chains of elosulfase alfa to the cation-independent mannose-6- phosphate receptor (CI-M6PR).
The FDA approval of elosulfase alfa was based on a randomized trial of 176 members with MPS IVA. Weekly elosulfase alfa treatment improved distance walked in a 24-week randomized, placebo- controlled trial.
Members who continued to receive weekly elosulfase alfa for an additional 48 weeks had no further improvement in walking ability beyond the first 24 weeks. No further improvement in walking ability was seen in a 48-week extension trial.

In this pivotal phase 3 study of elosulfase alfa (MOR-004) members treated with 2.0 milligrams per kilogram per week (mg/kg/week) of elosulfase alfa had a statistically significant increase from baseline in mean distance walked during the 6MWT at 24 weeks compared with placebo or members treated with 2.0 mg/kg every other week.

The results showed that elosulfase alfa improved performance on the 6MWT (primary outcome) but not the 3MSCT (secondary outcome). Elosulfase therapy was also associated with a greater reduction in urinary keratan sulphate levels compared with placebo; however, the clinical significance of this finding has not been established. As with other ERT products, members may develop neutralizing antibodies

(NAbs) to elosulfase alfa. All members treated with Vimizim 2 mg/kg once per week tested positive for NAbs. The relationship between the presence of NAbs and long-term therapeutic response cannot be assessed. Although the presence of NAbs did not appear to have a significant effect on the efficacy or safety of elosulfase alfa, the long-term effect of the immunogenicity of the product is unknown. Prior to the approval of this ERT for the treatment for MPS IVA, the only alternatives were palliative or supportive care, which does not treat the underlying cause of the disease, so it continues to progress. In consideration of the unmet need for treatment of MPS IVA, the benefits of elosulfase alfa therapy for members with MPS IVA outweigh the known risks since there are no clinical alternatives to elosulfase alfa for ERT in members with MPS IVA. Elosulfase alfa has a reasonable safety profile with consideration of the seriousness of the disorder though this therapy is associated with development of NAbs and infusion reactions.

The single phase 3 pivotal supports the efficacy of the recombinant enzyme; however, efficacy was established based primarily on subjective tests of endurance (the 6MWT and 3MSCT are subjective tests depend on the effort and motivation of the individual member, which may be difficult to control in younger children) and long-term outcomes have not been published. The American Journal of Medical Genetics recommends initiating treatment as soon as the diagnosis has been confirmed by an enzyme activity test.

CONTRAINDICATIONS/EXCLUSIONS/DISCONTINUATION:
All other uses of Vimizim (elosulfase alfa) are considered experimental/investigational and therefore, will follow Molina's Off- Label policy. Contraindications to Vimizim (elosulfase alfa) include: No labeled contraindications.

OTHER SPECIAL CONSIDERATIONS:
Vimizim has a Black Box Warning for risk of anaphylaxis. Life-threatening anaphylactic reactions have occurred in some patients during Vimizim infusions. Anaphylaxis, presenting as cough, erythema, throat tightness, urticaria, flushing, cyanosis, hypotension, rash, dyspnea, chest discomfort, and gastrointestinal symptoms in conjunction with urticaria, have been reported to occur during infusions, regardless of duration of the course of treatment. Closely observe patients during and after Vimizim administration and be prepared to manage anaphylaxis. Inform patients of the signs and symptoms of anaphylaxis and have them seek immediate medical care should symptoms occur. Patients with acute respiratory illness may be at risk of serious acute exacerbation of their respiratory compromise due to hypersensitivity reactions and require additional monitoring.

CODING/BILLING INFORMATION

Note: 1) This list of codes may not be all-inclusive. 2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement

HCPCS CODE	DESCRIPTION
J1322	Injection, elosulfase alfa, 1 mg

AVAILABLE DOSAGE FORMS:
Vimizim SOLN 5MG/5ML single-dose vial

REFERENCES

1. BioMarin Pharmaceutical Inc. Vimizim (elosulfase alfa) injection prescribing information. Novato, CA;

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10. Burton BK, Berger KI, Lewis GD, et al. Safety and physiological effects of two different doses of elosulfase alfa in members with Morquio a syndrome: a randomized, double-blind, pilot study. Am J Med Genet A. 2015;167A(10):2272-2281.
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13. American Thoracic Society Committee on Proficiency Standards for Clinical Pulmonary Function Laboratories. ATS statement: guidelines for the six-minute walk test. Am J RespirCrit Care Med. 2002;166(1):111-117. doi:10.1164/rccm.166/1/111.

SUMMARY OF REVIEW/REVISIONS	DATE
REVISION- Notable revisions: Required Medical Information Continuation of Therapy	Q3 2024
REVISION- Notable revisions: Required Medical Information Continuation of Therapy Prescriber Requirements Quantity FDA-Approved Uses Other Special Considerations Available Dosage Forms	Q3 2023
REVISION- Notable revisions: Required Medical Information Continuation of Therapy Prescriber Requirements Contraindications/Exclusions/Discontinuation References	Q3 2022
Q2 2022 Established tracking in new format	Historical changes on file