


# MEDICAL POLICY – 5.01.642

## Gene Therapies for Rare Diseases

BCBSA Ref. Policy:	5.01.49	RELATED MEDICAL POLICIES:	
Effective Date:	Aug. 1, 2024		None
Last Revised:	July 9, 2024		
Replaces:	N/A		

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### Introduction

Gene therapy is a type of medical treatment that involves adding, removing, or changing a person’s genetic material. Some gene therapies are already available for, and many gene therapies are being studied for individuals with serious or life-threatening rare diseases because they focus on correcting the root cause of the disease. This policy describes when gene therapies may be considered medically necessary for individuals with certain rare diseases.

**Note:** The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

### Policy Coverage Criteria

Drug	Medical Necessity
<b>Lenmeldy (atidarsagene autotemcel)</b>	<b>Lenmeldy (atidarsagene autotemcel) may be considered medically necessary when all the following criteria are met:</b>

Drug	Medical Necessity
	<ul style="list-style-type: none"> <li>• The individual has been diagnosed with metachromatic leukodystrophy (MLD) confirmed by ALL the following: <ul style="list-style-type: none"> <li>○ Arylsulfatase-A (ARSA) gene activity below the normal range in peripheral blood mononuclear cells or fibroblasts</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>○ Identification of two known or novel disease-causing ARSA alleles</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>○ 24-hour urine collection shows elevated sulfatide levels</li> </ul> <p><b>AND</b></p> <li>• The individual was diagnosed with MLD when they were 6 years of age or younger</li> <p><b>AND</b></p> <li>• The individual currently has no clinical signs or symptoms related to their MLD diagnosis including but not limited to the following: <ul style="list-style-type: none"> <li>○ Delay in expected achievement of independent standing or independent walking</li> <li>○ Documented normal neurological evaluation within the last 6 months</li> </ul> <p><b>OR</b></p> <li>• The individual has been diagnosed with MLD between 30 months and 6 years of age</li> <p><b>AND</b></p> <li>• The individual currently has a <b>Gross Motor Function Classification (GMFC-MLD)</b> level of 0 with ataxia or 1</li> <p><b>AND</b></p> <li>• The individual currently has an intelligence quotient (IQ) of 85 or greater on age-appropriate neurodevelopmental testing</li> <p><b>AND</b></p> <li>• Lenmeldy (atidarsagene autotemcel) is being prescribed by or in consultation with a neurologist or a prescriber who specializes in MLD</li> <p><b>AND</b></p> <li>• The individual has not previously received treatment with a gene therapy</li> <p><b>AND</b></p> </li></li></ul>



Drug	Medical Necessity
	<ul style="list-style-type: none"> <li>The individual has not previously received treatment with a hematopoietic stem cell transplant</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>Lenmeldy (atidarsagene autotemcel) will be administered as a one-time infusion</li> </ul>

Drug	Investigational
<b>Lenmeldy (atidarsagene autotemcel)</b>	<p><b>All other uses of Lenmeldy (atidarsagene autotemcel) for conditions not outlined in this policy are considered investigational.</b></p> <p><b>Repeat treatment of Lenmeldy (atidarsagene autotemcel) is considered investigational.</b></p>

Length of Approval	
Approval	Criteria
<b>Initial authorization</b>	<b>Lenmeldy (atidarsagene autotemcel) may be approved as a one-time infusion.</b>
<b>Re-authorization criteria</b>	<b>Repeat treatment of Lenmeldy (atidarsagene autotemcel) is considered investigational.</b>

Documentation Requirements
<p><b>The individual's medical records submitted for review for all conditions should document that medical necessity criteria are met. The record should include the following:</b></p> <ul style="list-style-type: none"> <li>Office visit notes that contain the diagnosis, relevant history, genetic testing, physical evaluation, and medication history</li> </ul>

## Coding

Code	Description
CPT	
HCPCS	



Code	Description
J3590	Unclassified biologics (use to report Lenmeldy)

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## Related Information

### Gross Motor Function Classification in Metachromatic Leukodystrophy (GMFC-MLD)<sup>1</sup>

GMFC-MLD Level	
Level 0	Walking without support with quality of performance normal for age
Level 1	Walking without support but with reduced quality of performance, i.e. instability when standing or walking
Level 2	Walking with support. Walking without support not possible (fewer than five steps)
Level 3	Sitting without support and locomotion such as crawling or rolling. Walking with or without support not possible
Level 4	Sitting without support but no locomotion OR sitting without support not possible, but locomotion such as crawling or rolling
Level 5	No locomotion nor sitting without support, but head control is possible
Level 6	Loss of any locomotion as well as loss of any head and trunk control

### Consideration of Age

The ages stated in this policy for which Lenmeldy (atidarsagene autotemcel) is considered medically necessary, is based on the FDA labeling for this drug.

### Benefit Application

Lenmeldy (atidarsagene autotemcel) is managed through the medical benefit.



### Lenmeldy (atidarsagene autotemcel)

Metachromatic leukodystrophy (MLD) is a genetic condition that affects approximately 2500 individuals in the US and is caused by the accumulation of sulfatides, leading to myelin sheath destruction in the nerves of the central and peripheral nervous systems. Symptoms vary but include difficulty speaking, seizures, trouble walking, and behavioral and personality changes. Prior to the approval of Lenmeldy, the only treatment options for MLD were supportive care and stem cell transplant for pre-symptomatic or minimally symptomatic children. Lenmeldy is an ex vivo autologous hematopoietic stem cell gene therapy that uses a lentiviral vector (LVV) encoding the ARSA gene. The stem cells are collected from the individual, modified by adding a functional copy of the ARSA gene, and then transplanted back into the individual, where they engraft within the bone marrow. Lenmeldy is intended to be a one-time treatment, administered following conditioning with busulfan. The approval of Lenmeldy was supported by safety and efficacy data from a total of 39 children with PSLI, PSEJ, and ESEJ MLD who received the drug in two single-arm, open-label clinical trials and in an expanded access program (EAP). Data from children who received Lenmeldy were compared with data from 49 untreated natural history controls. For PSLI MLD, 14 treated children and 24 natural history children had sufficient follow-up to determine survival at 6 years from birth. At this time point, all individuals treated with Lenmeldy were alive, and 10 natural history children had died (42%). In addition, children with PSEJ MLD who received Lenmeldy showed slowing of motor and cognitive disease, and children with ESEJ MLD who received Lenmeldy showed slowing of cognitive disease. The most common side effects of Lenmeldy include fever and low white blood cell count, mouth sores, respiratory infections, rash, medical line infections, viral infections, fever, gastrointestinal infections, and enlarged liver. Treatment with Lenmeldy may be associated with the formation of blood clots or encephalitis. There is a potential risk of blood cancer associated with this treatment; however, no cases have been observed in individuals treated with Lenmeldy.

## References

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## History

Date	Comments
08/01/24	New policy, approved July 9, 2024. Added coverage criteria for Lenmeldy (atidarsagene autotemcel). Added drug name Lenmeldy to unlisted HCPCS code J3590.

**Disclaimer:** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply.



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