Lenmeldy (atidarsagene autotemcel)

Humana

Medicaid Medical Coverage Policy

Original Effective Date: 01/01/2025
Effective Date: 07/01/2025
Review Date: 05/06/2025
Policy Number: HUM-2266-001
Line of Business: Medicaid
State(s): VA

Table of Contents

Description

Leukodystrophies are a group of genetically determined disorders that affect development or maintenance of central nervous system myelin (white matter). Metachromatic leukodystrophy (MLD) is a rare inherited neurometabolic disorder caused by a defect in the arylsulfatase A (ARSA) lysosomal enzyme resulting from a mutation in the *ARSA* gene. Defects in the ARSA enzyme led to a toxic accumulation of certain fats within nerve cells, causing serious systemic issues and lowering life expectancy.[4] MLD is the most common leukodystrophy and manifests as progressive cognitive and motor impairment resulting from damaged myelin sheaths. MLD is categorized according to the age of onset, each of which has different clinical presentations.[6]

Symptoms include behavioral changes, cognitive regression, gastrointestinal issues, progressive motor impairment and seizures. Treatment of MLD has historically been limited to symptom management, where few individuals with early-onset MLD survive to adulthood.[4]

Three major subtypes of MLD include[12]:

- **Late-infantile onset** (*6 months to 2 years of age*): The most common and most severe form, where symptoms may then decrease for weeks before continuing to progress. Other early signs can include gait difficulties, seizures, ataxia, hypotonia, extensor plantar responses and optic atrophy. Deep tendon reflexes are sometimes reduced or absent, due to peripheral neuropathy. Sensory potentials are affected earlier and more severely than are motor responses. The prognosis is worse than later-onset

forms of MLD; progression to death typically occurs within five to six years of age, although some individuals survive into the second decade of life.

- **Juvenile onset** (*3 to less than 16 years of age*): This form of MLD is heterogeneous in presentation. Some children present between 4 and 6 years of age (early juvenile) with intellectual impairment, behavioral difficulties, gait disturbance, ataxia, upper motor neuron signs and peripheral neuropathy; seizures may also occur. Another group of children presents between 6 and 16 years of age (late juvenile) with behavioral changes, intellectual impairment and, in many cases, seizures. The progression is slower compared with the late infantile form, and these children may survive until early adulthood.

- **Adult onset** (*16 years of age or older*): The least common form is usually indicated by dementia and behavioral difficulties. A substantial minority present with neuropathy, psychosis, schizophrenia or seizures. Additionally, optic atrophy has also been reported. A late-onset or adult-onset phenotype limited to psychiatric disease with minimal or no motor findings is well described but often remains undiagnosed for many years; the course is static or very slowly progressive. Affected individuals may survive for 20 to 30 years after onset.

Lenmeldy (atidarsagene autotemcel) is an autologous hematopoietic stem cell-based gene therapy indicated for the treatment of children with pre symptomatic late infantile (**PSLI**), pre symptomatic early juvenile (**PSEJ**) or early symptomatic early juvenile (**ESEJ**) MLD. This gene therapy uses autologous CD34+cells transduced with a lentiviral vector encoding the human *ARSA* gene and suspended in cryopreservation solution to produce hematopoietic stem cells (HSCs) to introduce functional copies of the *ARSA* gene into the child's own HSCs through a single administration.[12]

Requests for Lenmeldy (atidarsagene autotemcel) *require review by a medical director*.

Coverage Determination

Refer all requests or questions regarding Lenmeldy (atidarsagene autotemcel) to the Corporate Transplant Department.

Phone	***Fax***	***Email***
1-866-421-5663	*502-508-9300*	*transplant@humana.com*

Humana members may be eligible under the Plan for **Lenmeldy (atidarsagene autotemcel)** for the following indications:

- Absence of limitations; **AND**

- Individual has confirmed diagnosis of **PSLI**, **PSEJ**, or **ESEJ** subtypes of MLD[12]as evidenced by the following[5]**:**

  - ARSA enzyme activity below the normal range **OR** increased urinary excretion of sulfatides; **AND**
  - Known pathogenic *ARSA* gene mutation; **AND**

- Individual is a candidate for an allogeneic HSC transplantation, but lacks an available matched donor[12]; **AND**
- Individual has not received a prior allogeneic stem cell transplant (or has, but is without evidence of residual donor cells present)[12]; **AND**
- Individual will receive 1 dose per lifetime

Coverage Limitations

Humana members may **NOT** be eligible under the Plan for **Lenmeldy (atidarsagene autotemcel)** for any indications other than those listed above including, but may not be limited to[12]:

- Individual 18 years of age or older; **OR**
- Individual has evidence of:
  - Clinically significant and active bacterial, fungal, parasitic, severe concomitant diseases or viral infection including hepatitis B or C (HBV, HCV), or human immunodeficiency virus (HIV); **OR**
  - Hepatic (liver) impairment; **OR**
  - Renal (kidney) impairment; **OR**
- Individual is pregnant or breastfeeding; **OR**
- Individual has desire to become pregnant/reproduce OR unwilling to use effective contraception

A review of the current medical literature shows that there is **no evidence** to determine that this service is standard medical treatment. There is an absence of current, widely-used treatment guidelines or acceptable clinical literature examining benefit and long-term clinical outcomes establishing the value of this service in clinical management for these indications.

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments
No code(s) identified		

CPT® Category III Code(s)	Description	Comments
No code(s) identified		
HCPCS Code(s)	**Description**	**Comments**
C9399	Unclassified drugs or biologicals	
J3490	Unclassified drugs	
J3590	Unclassified biologics	
ICD-10-PCS Code(s)	**Description**	**Comments**
XW133G8	Transfusion of Atidarsagene Autotemcel into Peripheral Vein, Percutaneous Approach, New Technology Group 8	
XW143G8	Transfusion of Atidarsagene Autotemcel into Central Vein, Percutaneous Approach, New Technology Group 8	

References

1. Armstrong N, Olaye A, Noake C, Pang F. A systematic review of clinical effectiveness and safety for historical and current treatment options for metachromatic leukodystrophy in children, including atidarsagene autotemcel. *Orphanet J Rare Dis*. 2023;18(1):248.

2. Bonkowsky JL, Keller S; AAP section on Neurology, Council on Genetics. Leukodystrophies in children: diagnosis, care, and treatment. *Pediatrics*. 2021;148(3).

3. ClinicalKey. Drug Monograph. Atidarsagene autotemcel. https://clinicalkey.com. Updated March 27, 2024.

4. ECRI Institute. PCORI horizon scanning profiles. Atidarsagene autotemcel (Lenmeldy) to treat early-onset metachromatic leukodystrophy. https://home.ecri.org. Updated February 7, 2025.

5. Fumagalli F, Calbi V, Natali Sora MG, et al. Lentiviral haematopoietic stem-cell gene therapy for early-onset metachromatic leukodystrophy: long-term results from a non-randomised, open-label, phase 1/2 trial and expanded access. *Lancet*. 2022;399(10322):372-383.

6. Hayes, Inc. Emerging Technology Report. Atidarsagene autotemcel (Lenmeldy; Orchard Therapeutics) for metachromatic leukodystrophy. https://evidence.hayesinc.com. Published March 20, 2024.

7. IBM Micromedex. DrugPoint Summary. Atidarsagene autotemcel. https://www.micromedexsolutions.com. Updated January 30, 2025.

8. Majhail NS, Farnia SH, Carpenter PA, et al. Indications for autologous and allogeneic Hematopoietic cell Transplantation: guidelines from the American Society for Blood and Marrow Transplantation. *Biol Blood Marrow Transplant*. 2015;21(11):1863-1869.

9. Murata M, Teshima T. Treatment of steroid-refractory acute graft-*versus*-host disease using commercial mesenchymal stem cell products. *Front Immunol*. 2021;12:724380.

10. UpToDate, Inc. Gene test interpretation: ARSA (metachromatic leukodystrophy gene). https://uptodate.com. Updated February 2025.

11. UpToDate, Inc. Metachromatic leukodystrophy. https://uptodate.com. Updated February 2025.

12. US Food & Drug Administration (FDA). Full prescribing information: Lenmeldy (atidarsagene autotemcel). https://fda.gov. Published March 2024.

Change Summary

01/01/2025 New Policy.
05/06/2025 Annual Review, No Coverage Change.