Harvard Pilgrim Health Care | TUFTS Health Plan

Medical Necessity Guidelines
Medical Benefit Drugs

Skysona® (elivaldogene autotemcel)

Effective: July 1, 2026

Prior Authorization Required If REQUIRED, submit supporting clinical documentation pertinent to service request.	Yes ☒ No ☐

Applies to:

Commercial Products

☒ Harvard Pilgrim Health Care Commercial products; Fax 617-673-0988
☒ Tufts Health Plan Commercial products; Fax 617-673-0988

Public Plans Products

☒ Tufts Health Direct – A Massachusetts Qualified Health Plan (QHP) (a commercial product); Fax 617-673-0988
☐ Tufts Health Together – MassHealth Accountable Care Partnership Plans; Fax 617-673-0939
☒ Tufts Health RITogether – A Rhode Island Medicaid Plan; Fax 617-673-0939
☐ Tufts Health One Care-- A dual-eligible product; Fax 617-673-0956

☐ Tufts Health Plan Senior Care Options (SCO), (a dual-eligible product); Fax 617-673-0956
☐ Tufts Medicare Preferred HMO, (a Medicare Advantage product); Fax 617-673-0956
☐ Tufts Medicare Preferred PPO, (a Medicare Advantage product); Fax 617-673-0956

Note: While you may not be the provider responsible for obtaining prior authorization, as a condition of payment you will need to ensure that prior authorization has been obtained.

Overview

Cerebral adrenoleukodystrophy (CALD) is a rare and devastating neurologic disease that robs young patients of the chance to live a full life. The disease results in rapid loss of neurological function after the initial onset of symptoms and sadly, nearly half of patients who do not receive treatment die within five years of symptom onset.

Adrenoleukodystrophy (ALD) is a rare, X-linked, metabolic disorder caused by a mutation in the ABCD1 gene which results in the toxic buildup of very long-chain fatty acids (VLCFA) in the brain and spinal cord. CALD is the most severe and neurodegenerative form of this condition.

The accumulation of VLCFA in the adrenal cortex and white matter of the brain and spinal cord leads to the progressive destruction of myelin, the protective sheath of the nerve cells in the brain that are responsible for thinking and muscle control. Without myelin, these nerves can no longer relay information to and from the brain.

For many boys, adrenal insufficiency or behavioral problems are the first detected symptoms, preceding the onset of neurologic symptoms. As the disease progresses, boys develop vision and hearing problems, seizures, poor coordination, and difficulty swallowing.

ALD is estimated to affect 1 in 5,000 to 1 in 17,000 newborns, and approximately 1 in 20,000 to 1 in 30,000 newborn males. CALD develops in approximately 40% of affected boys and in a smaller number of adult men.

Food and Drug Administration (FDA) Approved Indications:

- SKYSONA (elivaldogene autotemcel) is indicated to slow the progression of neurologic dysfunction in boys 4-17 years of age with early, active cerebral adrenoleukodystrophy (CALD). Early, active CALD refers to asymptomatic or mildly symptomatic (neurologic function score, NFS ≤ 1) boys who have gadolinium enhancement on brain magnetic resonance imaging (MRI) and Loes scores of 0.5-9.

Skysona is an autologous HSC-based gene therapy prepared from the patient's HSCs, which are collected via apheresis procedure(s). The autologous cells are enriched for CD34+ cells, then transduced ex vivo with Lenti-D LVV, and cultured with growth factors overnight. Lenti-D LVV is a replication-incompetent, self-inactivating LVV carrying ABCD1 cDNA that encodes

normal ALDP. The ABCD1 gene is under the control of an internal MNDU3 promoter, which is a modified viral promoter and has been shown to control expression of the transgene in HSCs and their progeny in all lineages.

NOTE: Skysona can only be administered at a Skysona Qualified Treatment Centers (QTC). Each Skysona QTC has been carefully selected based on their expertise in areas such as transplant, cell and gene therapy. For information on locating a Skysona Qualified Treatment Center, please go to www.bluebirdbio.com.

Clinical Guideline Coverage Criteria

The Plan may authorize coverage of Skysona when all the following clinical criteria are met:

1. The Member has a diagnosis of cerebral adrenoleukodystrophy, CALD confirmed by elevated very long chain fatty acids (VLCFA) and molecular testing of the ABCD1 gene.

AND

2. The Member is between 4-17 years of age at the time of treatment.

AND

3. The Member has a Loes score between 0.5 and 9 (inclusive) on the 34-point scale.

AND

4. The Member is clinically stable and would be considered a candidate for allogenic hematopoietic stem cell transplantation (HSCT), but ineligible due to the absence of an HLA-matched family donor or any other condition(s) that the provider attests which makes the member ineligible for HSCT.

AND

5. The Member has Gadolinium enhancement on MRI of demyelinating lesions.

AND

6. The Member has a Neurologic Function Score (NFS) less than or equal to 1.

AND

7. The Member does not have any current malignancies.

AND

8. The Member does not test positive for HIV-1 and HIV-2, hepatitis B virus (HBV), or hepatitis C (HCV). and Human T-lymphotropic virus 1 & 2 (HTLV-1/HTLV-2) in accordance with clinical guidelines before collection of cells for manufacturing.

AND

9. The Member has not taken anti-retroviral medication(s) for at least one month prior to mobilization, **OR** the expected duration for elimination of the anti-retroviral medication(s) and until all cycles of apheresis are completed.

AND

10. The Member has been assessed for hepatic impairment to ensure HSC transplantation is appropriate as defined by **ONE** (1) of the following:
    a. Aspartate transaminase (AST) value > 2.5x the upper limit of normal (ULN), or
    b. Alanine transaminase (ALT) value > 2.5x ULN, or
    c. Total bilirubin value > 3.0 milligram per deciliter (mg/dL), except if there is a diagnosis of Gilbert's Syndrome and the member is otherwise stable

AND

11. The Member has not received a vaccination during the 6 weeks preceding the start of myeloablative conditioning, and until hematological recovery following treatment with SKYSONA.

AND

12. The Prescribing physician is a Neurologist with specialized training in the treatment of CALD.

AND

13. The Member will have treatment administered at a Skysona Qualified Treatment Center (QTC).

Limitations

- Skysona will only be approved for an FDA-approved indication. All other uses are considered experimental or investigational.
- Authorization of Skysona will be limited to a single dose.
- Members who have had prior treatment with Skysona, including therapies in clinical trial settings, will not be approved for additional Skysona.
- A Member currently receiving chemotherapy will not be approved for Skysona.

Codes

The following code(s) require prior authorization:

Table 1: HCPCS Codes

HCPCS Codes	Description
J3387	Injection, elivaldogene autotemcel, per treatment

References:

1. Skysona (elivaldogene autotemcel) [prescribing information]. Somerville, MA; bluebird bio, inc. September 2022.
2. bluebird bio Receives FDA Accelerated Approval for SKYSONA® Gene Therapy for Early, Active Cerebral Adrenoleukodystrophy (CALD). bluebirdbio.com. https://investor.bluebirdbio.com/news-releases/news-release-details/bluebird-bio-receives-fda Published Sept 16, 2022. Accessed October 11, 2022.https://investor.bluebirdbio.com/news-releases/news-release-details/bluebird-bio-receives-fda-accelerated
3. Eichler F, Duncan C, Musolino PL, et al. Hematopoietic Stem-Cell Gene Therapy for Cerebral Adrenoleukodystrophy. N Engl J Med. 2017 Oct 26;377(17):1630-1638. doi: 10.1056/NEJMoa1700554. Epub 2017 Oct 4. PMID: 28976817; PMCID: PMC5708849
4. Scott AI, Mallhi KK, Ganesh J, Chen WL; ACMG Therapeutics Committee8∗documents@acmg.net. Elivaldogene autotemcel approved for treatment of cerebral adrenoleukodystrophy (CALD) in males: A therapeutics bulletin of the American College of Medical Genetics and Genomics (ACMG). Genet Med Open. 2023;1(1):100835. Published 2023 Nov 15. doi:10.1016/j.gimo.2023.100835
5. Duncan CN, Bledsoe JR, Grzywacz B, et al. Hematologic Cancer after Gene Therapy for Cerebral Adrenoleukodystrophy. N Engl J Med. 2024;391(14):1287-1301. doi:10.1056/NEJMoa2405541
6. Eichler F, Duncan CN, Musolino PL, et al. Lentiviral Gene Therapy for Cerebral Adrenoleukodystrophy. N Engl J Med. 2024;391(14):1302-1312. doi:10.1056/NEJMoa2400442
7. Gupta AO, Raymond G, et. al. Treatment of cerebral adrenoleukodystrophy: allogeneic transplantation and lentiviral gene therapy. Expert Opin Biol Ther. 2022 Sep;22(9):1151-1162. doi: 10.1080/14712598.2022.2124857. Epub 2022 Sep 19. PMID: 36107226.
8. Engelen M, et. al. International Recommendations for the Diagnosis and Management of Patients With Adrenoleukodystrophy: A Consensus-Based Approach. Neurology. 2022 Nov 22;99(21):940-951. doi: 10.1212/WNL.0000000000201374. Epub 2022 Sep 29. PMID: 36175155; PMCID: PMC9687408.
9. Dunbar CE. Weighing the Risks of Lentiviral Gene Therapy for Cerebral Adrenoleukodystrophy. N Engl J Med. 2024 Oct 10;391(14):1358-1359. doi: 10.1056/NEJMe2409399. PMID: 39383463.
10. Management and prognosis of X-linked adrenoleukodystrophy. UpToDate.com/login [via subscription only]. Published July 30, 2025. Updated February 1, 2026. Accessed March 20, 2026.

Approval And Revision History

November 16, 2022: Reviewed and approved at Medical Policy Approval Committee (MPAC)

Subsequent endorsement date(s) and changes made:

- Originally approved at November 16, 2022 MPAC effective January 1, 2023
- Administrative update: September 2023 added Medical Benefit Drugs to title, updated MATogether and RITogether fax numbers to 617-673-0939
- August 16, 2023: Reviewed by MPAC, renewed without changes
- December 2023: Rebranded Unify to One Care effective January 1, 2024
- June 20, 2024: Reviewed by MPAC, renewed without changes, references updated, effective September 1, 2024
- April 16, 2025: Reviewed by MPAC, renewed without changes, references updated, effective May 16, 2025.
- December 4, 2025: Coding updated per AMA HCPCS, new code J3387 added, effective January 1, 2026.
- December 2025: Administrative updates effective January 1, 2026.
- May 20, 2026: Reviewed by MPAC, renewed without changes, references updated, effective July 1, 2026.

Background, Product and Disclaimer Information

Medical Necessity Guidelines are developed to determine coverage for benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. We make coverage decisions using these guidelines, along with the Member's benefit document, and in coordination with the Member's physician(s) on a case-by-case basis considering the individual Member's health care needs.

Medical Necessity Guidelines are developed for selected therapeutic or diagnostic services found to be safe and proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in our service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. We revise and update Medical Necessity Guidelines annually, or more frequently if new evidence becomes available that suggests needed revisions.

For self-insured plans, coverage may vary depending on the terms of the benefit document. If a discrepancy exists between a Medical Necessity Guideline and a self-insured Member's benefit document, the provisions of the benefit document will govern. For Tufts Health Together (Medicaid), coverage may be available beyond these guidelines for pediatric members under age 21 under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefits of the plan in accordance with 130 CMR 450.140 and 130 CMR 447.000, and with prior authorization.

Treating providers are solely responsible for the medical advice and treatment of Members. The use of this guideline is not a guarantee of payment, or a final prediction of how specific claim(s) will be adjudicated. Claims payment is subject to eligibility and benefits on the date of service, coordination of benefits, referral/authorization, utilization management guidelines when applicable, and adherence to plan policies, plan procedures, and claims editing logic.