



MVP Health Care Medical Policy

Medicare Part B: Skysona

Type of Policy:	Drug/Medical Therapy
Prior Approval Date:	NA
Approval Date:	1/01/2024
Effective Date:	01/01/2024
Related Policies:	N/A

Refer to the MVP Medicare website for the Medicare Part D formulary and Part D policies.

Drugs Requiring Prior Authorization under the medical benefit

J3590 Skysona (elivaldogene autotemcel)

Overview/Summary of Evidence

Skysona is one time an autologous hematopoietic stem cell (HSC)-based gene therapy that is prepared from the patients HSCs through apheresis procedure. Skysona 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 \leq 1) boys who have gadolinium enhancement on brain magnetic resonance imaging (MRI) and Loes scores of 0.5-9.

CALD is a rare, progressive, neurodegenerative disease that primarily affects young boys and causes irreversible, devastating neurologic decline, including major functional disabilities such as loss of communication, cortical blindness, requirement for tube feeding, total incontinence, wheelchair dependence, or complete loss of voluntary movement. Nearly half of patients who do not receive treatment die within five years of symptom onset. Prior to the approval of Skysona treatment, effective options were limited to allogeneic hematopoietic stem cell transplant (allo-HSCT), which is associated

with the risk of serious potential complications including death, that can increase dramatically in patients without a human leukocyte antigen (HLA) matched donor.

Indications/Criteria

Skysona may be considered for coverage when the following criteria are met:

- Documented diagnosis of early active cerebral adrenoleukodystrophy (CALD) and documentation of the following:
 - Neurologic function score (NFS) ≤ 1
 - Current magnetic brain resonance imaging (MRI) with use of Gadolinium Enhancement (GdE +) demonstrating demyelinating lesions
 - Loes scores of 0.5-9 based on assessment of brain MRI
 - Elevated very long chain fatty acid (VLCFA) confirmed by laboratory documentation
 - Confirmed mutations on the ABCD1 gene (not full deletion of the gene)
- If applicable, confirmed that anti-retroviral therapy will stop at least one month prior to initiating medications for stem cell mobilization and for the expected duration for elimination of the medications and until all cycles of apheresis are complete. Anti-retroviral medications may interfere with manufacturing of the apheresed cells.
- Member's sex is male
- Member is 4 years to 17 years of age
- Documentation that the member has been screened for the following: hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus 1 and 2 (HIV-1, HIV-2), human T-lymphotropic virus 1 and 2 (HTLV-1, HTLV-2).
 - Laboratory documentation indicates that the member is negative for HIV-1, HIV-2, HTLV-1, and HTLV-2
- Confirm that member has not received any vaccinations at least 6 weeks prior to the start of myeloablative conditioning

Skysona will be approved as a **one-time dose** and will not need to be continued for maintenance. Coverage is contingent on eligibility at the time of infusion.

Exclusions

The use of Skysona will not be covered for the following situations:

- More than one treatment per lifetime
 - Age, dose, frequency outside of FDA approved labeling
 - CALD secondary to head trauma
 - Requests for replacement due to lost or damaged product will not be covered
 - Active infection
 - Member is positive for HIV-1, HIV-2, HTLV-1, and /or HTLV-2
 - Full deletion of the ABCD1 gene (may result in rapid loss of efficacy due to immune response)
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References

1. Skysona (elivaldogene autotemcel). Prescribing Information. Somerville, MA. Bluebird Bio Inc. September 2022.
2. Clinical Pharmacology. Skysona. Accessed October 3, 2022.
3. [X-linked adrenoleukodystrophy - About the Disease - Genetic and Rare Diseases Information Center \(nih.gov\)](#)
4. Clinical Pharmacology. Skysona. Accessed November 1, 2023.
5. Micromedex Healthcare Series. Skysona. Accessed November 1, 2023.
6. Eichler F, Duncan C, Musolino PL, et al. Hematopoietic Stem-Cell Gene Therapy for Cerebral Adrenoleukodystrophy. The New England journal of medicine. 2017;377(17):1630-1638. doi:<https://doi.org/10.1056/NEJMoa1700554> Accessed November 1, 2023.