Draft Revision Policy: Do Not Implement

Elivaldogene Autotemcel (Skysona®)

IMPORTANT REMINDER

We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the medical policy and a health plan or government program (e.g., TennCare), the express terms of the health plan or government program will govern.

The proposal is to add text/statements in red and to delete text/statements with strikethrough:

POLICY

INDICATIONS

The indications below including FDA-approved indications and compendial uses are considered a covered benefit provided that all the approval criteria are met and the member has no exclusions to the prescribed therapy.

FDA-Approved Indications

Skysona is indicated to slow the progression of neurologic dysfunction in boys 4-17 years of age with early, active cerebral adrenoleukodystrophy (CALD) without an available human leukocyte antigen (HLA)-matched donor for allogenic stem cell transplant. Early, active cerebral adrenoleukodystrophy 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.

This indication is approved under accelerated approval based on 24-month Major Functional Disability (MFD)-free survival. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s).

Limitations of Use:

- Skysona does not prevent the development of or treat adrenal insufficiency due to adrenoleukodystrophy.
- An immune response to Skysona may limit the persistence of descendent cells of Skysona,causing rapid loss of efficacy of Skysona in patients with full deletions of the human adenosine triphosphate binding cassette, sub family D, member 1 (ABCD1) gene.
- Skysona has not been studied in CALD secondary to head trauma.
- Given the risk of hematologic malignancy with Skysona, and unclear long-term durability of Skysona and human adrenoleukodystrophy protein (ALDP) expression, careful consideration should be given to the appropriateness and timing of treatment for each boy, especially for boys with isolated pyramidal tract disease ~~based on available treatment options~~ since their clinical manifestations do not usually occur until adulthood.

All other indications are considered experimental/investigational and not medically necessary.

DOCUMENTATION

Submission of the following information is necessary to initiate the prior authorization review:
Chart notes, medical records, or lab results documenting all of the following:

- Pathogenic (or likely pathogenic) variant in the ABCD1 gene
- Elevated very long chain fatty acids (VLCFA) values

- Active central nervous system (CNS) disease on central radiographic review of brain magnetic resonance imaging (MRI) demonstrating:
  - Loes score between 0.5 and 9 (inclusive) on the 34-point scale, and
  - Gadolinium enhancement on MRI of demyelinating lesions
- Neurologic Function Score (NFS) less than or equal to 1
- Baseline hematologic, hepatic, renal, and cardiac assessments.

EXCLUSIONS

Coverage will not be provided for members with any of the following exclusions:
- Skysona will be used to treat or prevent adrenal insufficiency.
- Member has either of the following:
  - Full deletions of the ABCD1 transgene.
  - CALD secondary to head trauma.

PRESCRIBER SPECIALTIES

This medication must be prescribed by or in consultation with a physician who specializes in the treatment of adrenoleukodystrophy (ALD).

COVERAGE CRITERIA

Cerebral Adrenoleukodystrophy (CALD)

Authorization of 3 months for a one-time administration may be granted for treatment of cerebral adrenoleukodystrophy (CALD) when all of the following criteria are met:
- Member must be a male between ~~the ages of~~ 4 and 17 years of age.
- Member has a diagnosis of adrenoleukodystrophy confirmed by both of the following:
  - The presence of a pathogenic (or likely pathogenic) variant in the ABCD1 gene as detected by genetic testing, and
  - Elevated very long chain fatty acids (VLCFA) values per reference range of the laboratory performing the test
- Member has early active disease as defined by all of the following:
  - Central radiographic review of brain MRI demonstrating both of the following:
    - Loes score between 0.5 and 9 (inclusive) on the 34-point scale, and
    - Gadolinium enhancement on MRI of demyelinating lesions.
  - NFS of less than or equal to 1.
- Member is eligible for a hematopoietic stem cell transplant (HSCT) but is unable to find a human leukocyte antigen (HLA)-matched ~~sibling~~ donor.
- Member has not received Skysona or any other gene therapy previously.
- Member has not received a prior allogeneic hematopoietic stem cell transplant (allo-HSCT).
- Member does not have evidence of hematological compromise, defined as:
  - Peripheral blood absolute neutrophil count (ANC) < 1500 cells/mm3.
  - Platelet count < 100,000 cells/mm3.
  - Hemoglobin < 10 g/dL.
  - Uncorrected bleeding disorder.
- Member does not have evidence of abnormal hepatic function, defined as:
  - Aspartate transaminase (AST) value > 2.5 times the upper limit of normal.
  - Alanine transaminase (ALT) value > 2.5 times the upper limit of normal.

  - Total bilirubin values are > 3.0mg/dL (unless there is a diagnosis of Gilbert's Syndrome and member is otherwise stable).
- Member does not have evidence of abnormal renal function (e.g., creatinine clearance < 50 mL/min, glomerular filtration rate < 70 mL/min/1.73m2).
- Member does not have evidence of cardiac compromise (e.g., left ventricular ejection fraction < 40%).
- Member has a negative serology test for human immunodeficiency virus 1 and 2 (HIV-1/HIV-2), hepatitis B (HBV), hepatitis C (HCV), and human T-lymphocytic virus 1 and 2 (HTLV-1/HTLV-2).
- Member does not have an immediate family member with known or suspected familial cancer syndrome, or history of such.
- Member does not currently have an active bacterial, viral, fungal, or parasitic infection.
- Member will be monitored for evidence of malignancy per protocol outlined in the prescribing information following receipt of Skysona infusion.

APPLICABLE TENNESSEE STATE MANDATE REQUIREMENTS

BlueCross BlueShield of Tennessee's Medical Policy complies with Tennessee Code Annotated Section 56-7-2352 regarding coverage of off-label indications of Food and Drug Administration (FDA) approved drugs when the off-label use is recognized in one of the statutorily recognized standard reference compendia or in the published peer-reviewed medical literature.

ADDITIONAL INFORMATION

For appropriate chemotherapy regimens, dosage information, contraindications, precautions, warnings, and monitoring information, please refer to one of the standard reference compendia (e.g., the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) published by the National Comprehensive Cancer Network®, Drugdex Evaluations of Micromedex Solutions at Truven Health, or The American Hospital Formulary Service Drug Information).

REFERENCES

1. Skysona [package insert]. Somerville, MA: Bluebird bio, Inc.; April 2024.
2. Raymond GV, Moser AB, Fatemi A. X-Linked Adrenoleukodystrophy. 1999 Mar 26 [Updated 2023 Apr 6]. In: Adam MP, Everman DB, Mirzaa GM, et al., editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2023. Available from: https://www.ncbi.nlm.nih.gov/books/NBK1315/. Accessed November 18, 2025.
3. Eichler F, Duncan C, Musolino PL, et al. Hematopoietic Stem-Cell Gene Therapy for Cerebral Adrenoleukodystrophy. N Engl J Med. 2017;377(17):1630-1638. doi:10.1056/NEJMoa1700554

EFFECTIVE DATE

ID_CHS_2026