Lyfgenia (lovotibeglogene autotemcel)

NOTICE

This policy contains information which is clinical in nature. The policy is not medical advice. The information in this policy is used by Wellmark to make determinations whether medical treatment is covered under the terms of a Wellmark member's health benefit plan. Physicians and other health care providers are responsible for medical advice and treatment. If you have specific health care needs, you should consult an appropriate health care professional. If you would like to request an accessible version of this document, please contact customer service at 800-524-9242.

BENEFIT APPLICATION

Benefit determinations are based on the applicable contract language in effect at the time the services were rendered. Exclusions, limitations or exceptions may apply. Benefits may vary based on contract, and individual member benefits must be verified. Wellmark determines medical necessity only if the benefit exists and no contract exclusions are applicable. This medical policy may not apply to FEP. Benefits are determined by the Federal Employee Program.

DESCRIPTION

The intent of the policy is to provide coverage consistent with product labeling, FDA guidance, standards of medical practice, evidence-based drug information, and/or published guidelines. The indications below including FDA-approved indications and compendial uses are considered covered benefits provided that all the approval criteria are met and the member has no exclusions to the prescribed therapy.

FDA-Approved Indications

Lyfgenia is indicated for the treatment of patients 12 years of age or older with sickle cell disease and a history of vaso-occlusive events.

Limitations of Use:

Following treatment with Lyfgenia, patients with α-thalassemia trait (-α3.7/-α3.7) may experience anemia with erythroid dysplasia that may require chronic red blood cell transfusions. Lyfgenia has not been studied in patients with more than two α-globin gene deletions.

POLICY

Required Documentation

Submission of the following information is necessary to initiate the prior authorization review:

A. Molecular or genetic testing results documenting sickle cell disease genotype
B. Chart notes or medical records documenting history of severe vaso-occlusive episodes

Prescriber Specialties

The requested medication must be prescribed by or in consultation with a hematologist or transplant specialist.

Criteria for Initial Approval

Sickle cell disease

Authorization of 3 months for one dose total may be granted for sickle cell disease when all of the following criteria are met:

A. Member is ≥ 12 years old and ≤ 50 years old.
B. Member has a diagnosis of sickle cell disease confirmed by molecular or genetic testing:
    1. β^s/β^s
    2. β^s/β^0
    3. β^s/β^+

    *Additional genotypes will be considered on a case-by-case basis based on disease severity.
C. Member has a documented history of 4 or more severe vaso-occlusive events (VOEs) within the previous 24 months in setting of appropriate supportive care measures (see Appendix for examples).
D. Member has either experienced hydroxyurea (HU) failure or must have intolerance or inability to tolerate HU.
E. Member has a negative serologic test for HIV infection.
F. Member does not have:
    1. Applicable only to members <18 years of age: Availability of a willing, matched human leukocyte antigen–identical sibling hematopoietic cell donor.
    2. Advanced liver disease (meets any one of the following):
        a. Persistent aspartate transaminase, alanine transaminase, or direct bilirubin value greater than 3 times the upper limit of normal.
        b. Baseline prothrombin time or partial thromboplastin time greater than 1.5 times the upper limit of normal.
        c. Magnetic resonance imaging of the liver demonstrating clear evidence of cirrhosis.
        d. Liver biopsy demonstrating cirrhosis, any evidence of bridging fibrosis, or active hepatitis.
    3. T2*-weighted magnetic resonance imaging measurement of myocardial iron of less than 10 msec or other evidence of severe iron overload in the opinion of treating physician.
    4. Clinically significant pulmonary hypertension at baseline
    5. Baseline estimated glomerular filtration rate less than 70 mL/min/1.73 m^2.
    6. Any prior or current malignancy (with the exception of basal or squamous cell carcinoma of the skin) or significant immunodeficiency disorder.
    7. Any immediate family member (i.e. parent or siblings) with a known Familial Cancer Syndrome (including but not limited to hereditary breast and ovarian cancer syndrome, hereditary nonpolyposis colorectal cancer syndrome and familial adenomatous polyposis).
    8. Any active bacterial, fungal, parasitic, or viral infection, including active/uncontrolled HBV and HCV infection.
    9. Contraindication to the use of plerixafor, busulfan, or any other medicinal products required during myeloablative conditioning, including hypersensitivity to the active substances or to any of the excipients.
    10. A white blood cell count less than 3 X 10^9/L, and/or platelet count less than 100 X 10^9/L not related to hypersplenism.
    11. Severe cerebral vasculopathy, defined by ONE or more of the following:
        a. any history of overt ischemic or hemorrhagic stroke
        b. > 50% stenosis or occlusion in the circle of Willis
        c. the presence of Moyamoya disease
    12. History of receiving prior gene therapy or allogenic hematopoietic stem cell transplant.

13. Presence of genetic mutations that result in the inactivation of 2 or more α-globin genes.

Continuation of Therapy

Repeat treatment of Lyfgenia for any indication is considered investigational, as the safety and efficacy beyond one dose has not been studied. Approval is limited to one treatment course per lifetime.

Lyfgenia is considered **not medically necessary** for members who do not meet the criteria set forth above.

Dosing and Administration

The recommended dose is 3×10^6 $CD34^+$ cells per kilogram of body weight.
Approvals may be subject to dosing limits in accordance with FDA-approved labeling, accepted compendia, and/or evidence-based practice guidelines.

Quantity Limits

Lyfgenia approvals will be limited to one treatment per lifetime.

Appendix

Appendix A: Examples of Severe Vaso-Occlusive Events

1. Acute pain event requiring a visit to a medical facility and administration of pain medications (opioids or intravenous [IV] non-steroidal anti-inflammatory drugs [NSAIDs]) or RBC transfusions)
2. Acute chest syndrome
3. Priapism lasting > 2 hours and requiring a visit to a medical facility
4. Splenic sequestration
5. Hepatic sequestration

PROCEDURES AND BILLING CODES

To report provider services, use appropriate CPT* codes, Alpha Numeric (HCPCS level 2) codes, Revenue codes, and/or ICD diagnostic codes.

- J3394 – Injection, lovotibeglogene autotemcel, per treatment (effective 7/1/2024)
- J3490 – Unclassified drugs (when specified as [Lyfgenia] (lovotibeglogene autotemcel))
- J3590 – Unclassified biologics (when specified as [Lyfgenia] (lovotibeglogene autotemcel))
- C9399 – Unclassified drugs or biologics (when specified as [Lyfgenia] (lovotibeglogene autotemcel))

REFERENCES

- Lyfgenia [package insert]. Somerville, MA: bluebird bio, Inc.; December 2023.
- Walters JK, Krishnamurti L, Mapara MY, et al. Biologic and clinical efficacy of LentiGlobin for sickle cell disease. NEJM. 2022;386(7):617-628.
- Evidence-Based Management of Sickle Cell Disease: Expert Panel Report, 2014. National Institutes of Health. Available at https://www.nhlbi.nih.gov/sites/default/files/media/docs/sickle-cell-disease-report%20020816_0.pdf. Accessed December 13, 2023.

POLICY HISTORY

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