CarePartners of Connecticut MEDICARE ADVANTAGE

Medical Necessity Guidelines

Medical Benefit Drugs

Casgevy™ (exagamglogene autotemcel)

Effective: April 1, 2024

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

Applies to:

☒ CarePartners of Connecticut Medicare Advantage HMO plans, Fax 617-673-0956

☒ CarePartners of Connecticut Medicare Advantage PPO plans, 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

Sickle cell disease (SCD) is a group of inherited debilitating blood disorders caused by a mutation in the β-globin gene that leads to the production of abnormal sickle shaped hemoglobin (HbS). In SCD, the sickled RBCs become rigid, undergo premature hemolysis leading to anemia and become unable to transport oxygen to critical organs. The condition affects more than 100,000 people in the United States with an incidence of about 1 in every 365 Black births and 1 in every 16,300 Hispanic-American births.

Severely affected patients may experience diverse complications such as severe anemia, repeated acute painful vaso-occlusive events (VOEs) due to small-vessel obstruction (vaso-occlusive crises [VOCs]; sickle cell crises), acute chest syndrome (ACS; acute event with pneumonia-like symptoms), cerebral vasculopathy, chronic organ damage that may involve e.g., the bones, kidneys, heart, liver, and lungs or result in severe infectious complications such as functional hyposplenism and premature death. Treatment includes measures to control complications, relieve pain, prevent infections, and minimize organ damage. Standard pharmacologic treatment has included medications, such as hydroxyurea (Hydrea), analgesics and blood transfusions. Hematopoietic stem cell transplantation for patients with an appropriate donor, until the development of gene therapy, has been an option for cure. Gene therapies now offer a treatment option for members with severe sickle cell disease who do not have a willing HLA matched family donor.

Food and Drug Administration (FDA) Approved Indications:

- CASGEVY is an autologous genome edited hematopoietic stem cell-based gene therapy indicated for the treatment of sickle cell disease (SCD) in patients 12 years and older with recurrent vaso-occlusive crises (VOCs)

Casgevy is the first FDA-approved gene therapy that uses CRISPER technology for genetic modification, which has been shown to reduce or eliminate VOCs for patients with SCD. CRISPR/Cas9-editing technology allows for modification of defective genes by editing, removing or replacing DNA from cells. CASGEVY is a non-viral, *ex vivo* CRISPR/Cas9 gene-edited cell therapy for eligible patients with SCD in which a patient's own hematopoietic stem and progenitor cells are edited at the erythroid specific enhancer region of the *BCL11A* gene through a precise double-strand break. The edited blood stem cells are transplanted back into the patient via a hematopoietic stem cell transplant, engraft (attach and multiply) within the bone marrow, and increase the production of fetal hemoglobin (HbF) in red blood cells. Hemoglobin F reduces intracellular hemoglobin S (Hbs) concentration, preventing the red blood cells from sickling and addressing the underlying cause of the disease. HbF is naturally present during fetal development and is a type of hemoglobin that facilitates oxygen delivery.

NOTE: Casgevy can only be administered at a Casgevy Authorized Treatment Center (ATC). Each Casgevy ATC has been carefully selected based on their expertise in areas such as transplant, cell and gene therapy. For information on locating an Authorized Treatment Center, please go to https://www.casgevy.com/sickle-cell-disease/find-an-ATC.

The Plan uses guidance from the Centers for Medicare and Medicaid Services (CMS) for its Medicare Advantage plan members. CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Local Coverage Articles (LCAs) and documentation included in the Medicare manuals are the basis for coverage determinations. When CMS does not provide

guidance, the Plan's internally developed medical necessity guidelines are used. CMS coverage guidelines are not established for this service.

For the therapy Casgevy, evidence is sufficient for coverage. Casgevy was FDA approved in December 2023 based on the results of an ongoing single-arm, multicenter CLIMB-121 trial. This study found that 29 out of the 31 patients enrolled, or 93.5%, achieved the primary outcome meaning the patients had no VOCs for 12 consecutive months during the 2 years of follow up.

The use of this criteria in the utilization management process will ensure access to evidence based clinically appropriate care. See References section below for all evidence accessed in the development of these criteria.

Clinical Guideline Coverage Criteria

The Plan may cover Casgevy for Severe Sickle Cell Disease when all the following clinical criteria is met:

1. Diagnosis of SCD (βS/βS, βS/β0 genotype)**; and**
2. Copy of genetic test confirming diagnosis of SCD**; and**
3. Prescriber is a hematologist or consult notes from a specialist are provided**; and**
4. Member is ≥ 12 years of age**; and**
5. History of ≥ 2 sickle cell crises per year in the last 2 years**; and**
6. ONE of the following:
    a. Inadequate response to hydroxyurea therapy at the maximally tolerated dose# *for at least three months*
    b. Adverse reaction or contraindication to hydroxyurea**; and**
7. Appropriate dosing and treatment dates**; and**
8. Infusion will take place in a qualified treatment facility**; and**
9. Member is clinically stable and eligible for HSCT**; and**
10. Member does not have active HIV, HBV, or HCV infection**; and**
11. Member has not received any prior SCD gene therapy

Limitations

- Any indications for Casgevy other than those outlined above are considered investigational and will not be covered
- Authorization of Casgevy is limited to one single dose treatment

Codes

The following code(s) require prior authorization:

Table 1: HCPCS Codes

HCPCS Codes	Description
	None

References:

1. A Safety and Efficacy Study Evaluating CTX001 in Subjects With Severe Sickle Cell Disease; NCT03745287. Accessed @ https://clinicaltrials.gov/study/NCT03745287?intr=(exagamglogene%20autotemcel)&rank=6 accessed January 25, 2024.
2. Casgevy (exagamglogene autotemcel). [package insert]. Boston, MA: Vertex Pharmaceuticals Inc; Dec 2023.
3. Evaluation of Safety and Efficacy of CTX001 in Pediatric Participants With Severe Sickle Cell Disease (SCD); NCT05329649. Accessed at Study Details | Evaluation of Safety and Efficacy of CTX001 in Pediatric Participants With Severe Sickle Cell Disease (SCD) | ClinicalTrials.gov accessed January 25, 2024.
4. New Drug Review: Casgevy (exagamglogene autotemcel). IPD Analytics. January 2024.

Approval And Revision History

February 21, 2024: Reviewed by the Medical Policy Approval Committee (MPAC) effective April 1, 2024

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.

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.