Omisirge (Omidubicel-onlv)

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 Omisirge (omidubicel-onlv) 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

Omisirge is a nicotinamide modified allogeneic hematopoietic progenitor cell therapy derived from cord blood indicated for use in adults and pediatric patients 12 years and older with hematologic malignancies who are planned for umbilical cord blood transplantation following myeloablative conditioning to reduce the time to neutrophil recovery and the incidence of infection.

Omisirge is indicated for the treatment of adults and pediatric patients 6 years of age and older with severe aplastic anemia (SAA) following reduced intensity conditioning.

POLICY

Criteria for Initial Approval

Hematologic Malignancy

Omisirge (Omidubicel-onlv) is considered **medically necessary** for members 12 years of age and older when all of the following criteria are met:

1. The member will receive umbilical cord blood transplantation

2. The requested medication is being used to reduce the time to neutrophil recovery and incidence of infection
3. The member will receive myeloablative conditioning
4. The member must not have a matched related donor (MRD), matched unrelated donor (MUD), mismatched unrelated donor (MMUD), or haploidentical donor readily available
5. The member has not received prior allogenic hematopoietic stem cell transplant.
6. The member will receive one treatment course per lifetime

Authorization of **1 month** for a single dose.

Severe Aplastic Anemia (SAA)
Omisirge (Omidubicel-onlv) is considered **medically necessary** for members 6 years of age and older when all of the following criteria are met:

1. The member will receive reduced-intensity conditioning
2. The member must not have a matched related donor (MRD), matched unrelated donor (MUD), mismatched unrelated donor (MMUD), or haploidentical donor readily available
3. Prescribed by or in consultation with a hematologist

Authorization of **1 month** for a single dose.

Continuation of Therapy
Approval is limited to one treatment course per lifetime.

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

Dosing and Administration
Approvals may be subject to dosing limits in accordance with FDA-approved labeling, accepted compendia, and/or evidence-based practice guidelines.

Quantity Limits
Treatment is limited to one treatment course per lifetime.

CLINICAL RATIONALE

Umbilical cord blood (UCB) transplantation is an important source of hematopoietic stem cells for patients with hematologic malignancies who are unable to find a suitable adult donor. However, UCB has been associated with increased early treatment-related morbidity and mortality due to delayed hematopoietic recovery compared to transplants from adult donors (Horwitz 2021). Omisirge (omidubicel-onlv) is a nicotinamide modified allogeneic hematopoietic progenitor cell therapy derived from cord blood indicated for use in adults and pediatric patients 12 years and older with hematologic malignancies who are planned for umbilical cord blood transplantation following myeloablative conditioning to reduce the time to neutrophil recovery and the incidence of infection Omisirge consists of ex-vivo expanded stem cells in the presence of nicotinamide which leads to preservation of their stemness, homing to the bone marrow (BM), and retained engraftment capacity.

The efficacy and safety of Omisirge was assessed in Study P0501, a global, open-label, multicenter, randomized study that evaluated 125 patients with hematologic malignancies who were transplanted with either Omisirge or standard (unmanipulated) UCB following myeloablative conditioning. Eligible patients were 12–65 years of age with high-risk hematologic malignancies, were candidates for myeloablative allogeneic hematopoietic stem cell transplant (allo-HSCT) and had no readily available matched sibling or

matched unrelated adult donor. Patients were excluded if they had other active malignancies, prior allo-HSCT, an HLA-matched donor able to donate, or pregnancy/lactation. In the trial, 87% of patients who received Omisirge achieved neutrophil recovery, compared to 83% of patients in the standard UCB group. The median time to neutrophil recovery was 12 days in the Omisirge group and 22 days in the standard UCB group. Within 100 days after transplantation, 39% of patients in the Omisirge group experienced a bacterial or fungal infection compared to 60% of those in the standard UCB group. Overall, Omisirge showed improved neutrophil engraftment and platelet recovery, lower incidence of bacterial and fungal infections, and more time out of the hospital for patients compared to standard UCB. However, it did not demonstrate statistically significant improvements in nonrelapse mortality, disease relapse, disease-free survival, overall survival, or graft-versus-host disease (GVHD) in comparison to standard UCB.

The incidence of serious treatment-emergent adverse events possibly related to the stem cell product was 40% in the Omisirge group versus 41% in the control group. Omisirge has a boxed warning for fatal infusion reactions, GVHD, engraftment syndrome, and graft failure. Other warnings and precautions include hypersensitivity reactions, malignancies of donor origin, transmission of serious infections, and transmissions of rare genetic diseases. Omisirge may improve access to treatment for patients with hematologic malignancies who are eligible for transplant but are unable to find a donor source.

The efficacy of Omisirge in patients with severe aplastic anemia (SAA) was evaluated in study 17- H-0091 (NCT 03173937), an open-label, single center study. The study enrolled patients with SAA who had intolerance or failure to respond to immunosuppressive therapy and availability of at least one ≥4/8 human leukocyte antigen (HLA)-matched (HLA-A, B, C and DR loci) cord blood unit. Patients were excluded if there was availability of an HLA identical (12/12) matched related or unrelated donor. In total, 17 patients were treated with Omisirge, among them 14 patients were treated with Omisirge alone and three patients were treated with both Omisirge and haploidentical CD34+ cells.

The primary efficacy outcome measure was the incidence of early and sustained neutrophil recovery, defined as ANC ≥500 cells/µl for 3 consecutive measurements on different days by Day 26, maintained at Days 42 and 100 post-transplant. Other secondary efficacy outcomes were neutrophil recovery (days to first of three consecutive ANC≥500 cells/µL), red blood cell (RBC) transfusion independence (days to 30-day transfusion independence), platelet recovery ≥20,000/µL (days to first of 3 consecutive platelet count of 20,000/µL with no preceding transfusion in 7 days) and platelet transfusion independence (days to 30-day platelet transfusion independence).

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.

Codes	Number	Description
HCPCS	J3490 J3590	Unclassified drugs (when specified as [Omisirge] (omidubicel-onlv)) Unclassified biologics (when specified as [Omisirge] (omidubicel-onlv))
ICD10 PCS	XW133C8	Transfusion of Omidubicel into Peripheral Vein, Percutaneous Approach, New Technology Group 8 (eff 10/01/2022)
	XW143C8	Transfusion of Omidubicel into Central Vein, Percutaneous Approach, New Technology Group 8 (eff 10/01/2022)
Type of Service	Drugs/Biologicals	
Place of Service	Inpatient/Outpatient	

REFERENCES

- Omisirge [package insert]. Kiryat Gat, Israel: Gamida Cell Ltd.; December 2025.

- Horwitz ME, Stiff PJ, Cutler C, et al. Omidubicel vs standard myeloablative umbilical cord blood transplantation: results of a phase 3 randomized study. Blood. 2021 Oct 21;138(16):1429-1440.

POLICY HISTORY

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