CARECONTINUUM™

UTILIZATION MANAGEMENT MEDICAL POLICY

POLICY: Hematology – Omisirge Utilization Management Medical Policy
- Omisirge® (omidubicel-onlv intravenous infusion – Gamida)

REVIEW DATE: 09/03/2025; selected revision 12/17/2025

OVERVIEW

Omisirge, a nicotinamide modified allogeneic hematopoietic progenitor cell therapy derived from cord blood, is indicated for in the treatment of:[1]

- Patients with hematologic malignancies who are planning to undergo umbilical cord blood transplantation following myeloablative conditioning to reduce the time to neutrophil recovery and the incidence of infection in adults and pediatric patients ≥ 12 years of age.
- Patients with severe aplastic anemia (SAA) following reduced intensity conditioning in adults and pediatric patients ≥ 6 years of age.

Disease Overview

Stem cell transplantation is used to treat various hematologic malignancies and involves placing healthy stem cells into the patient to restore the normal production and function of blood cells.[2-6] Umbilical cord blood is one source of healthy stems cells used for allogeneic transplantation; others can be obtained from peripheral blood or bone marrow. After birth, the blood present in the umbilical cord and placenta contains valuable hematopoietic stems cells that are typically discarded as medical waste. However, through donation, umbilical cord blood cells can be stored and used later for patients with conditions such as hematologic malignancies. Around 70% of patients do not have an optimal matched family donor; therefore, cells can be obtained from an unrelated donor. Patients who are non-White generally have more difficulties finding a suitable donor.

Aplastic anemia (SAA) is a rare and heterogenous disease; it is defined as pancytopenia with a hypocellular bone marrow in the absence of abnormal infiltrate or marrow fibrosis.[7] The majority of cases (70% to 80%) are idiopathic. The remainder mainly consist of inherited bone marrow failure syndromes. Patients commonly present with symptoms of anemia and thrombocytopenia. To diagnose AA, there must be at least two of the following: hemoglobin concentration < 100 g/L, platelet count < 50 x 10^9/L, and neutrophil count < 1.5 x 10^9/L. SAA is defined as marrow cellularity < 25% (or 25% to 50% with < 30% residual hematopoietic cells) and at least two of the following: neutrophil count < 0.5 x 10^9/L; platelet count < 20 x 10^9/L; reticulocyte count < 60 x 10^9/L.

Dosing Information

Omisirge is given as a single intravenous dose.[1] Omisirge is provided in two bags containing the two cryopreserved cell fractions (i.e., cultured fraction and non-cultured fraction). After it is made from the umbilical cord blood donor source, which takes about 21 days, Omisirge is shipped to the transplant center for a specific patient.

Guidelines

The National Comprehensive Cancer Network guidelines for hematopoietic cell transplantation (version 3.2025 – September 24, 2025) address Omisirge.[2] The guidelines note that if umbilical cord blood transplantation is being used, Omisirge has been demonstrated to shorten the time to engraftment and reduce the risk of some infections. In a Phase III trial, the median time to neutrophil engraftment for umbilical

cord blood transplantation with Omisirge was only 12 days compared with 22 days for standard umbilical cord blood transplantation. Also, platelet recovery was shorter in the Omisirge arm (55% vs. 35% recovery at 42 days). Grade 2 to 3 bacterial or invasive fungal infections were also less common in the Omisirge group (37% vs. 57%).

Omisirge is not yet addressed in guidelines or consensus recommendations for aplastic anemia. Guidelines from the British Society for Haematology (BSH) [2024] for aplastic anemia focus on immunosuppressive therapy or allogeneic hematopoietic stem cell transplantation (HSCT) from a matched sibling donor.[7] Immunosuppressive therapy consists or horse anti-thymocyte globulin (ATG) combined with cyclosporine with or without eltrombopag. Consensus recommendations for the management of severe aplastic anemia (2024) contain similar recommendations.[8] The panel recommends assessing age, severity of disease, and the availability of a histocompatible donor initially. Patients ≤ 40 years of age with an HLA-matched sibling donor are recommended to undergo a matched-related donor allogeneic HSCT. Those without a histocompatible donor, those not eligible for HSCT, or patients > 40 years of age are recommended to receive horse ATG + cyclosporine, with or without eltrombopag. Recommendations are also made for patients unresponsive to initial medical therapy or patients who present with relapsed disease.

Safety

Omisirge has a Boxed Warning regarding infusion reactions, graft versus host disease, engraftment syndrome, graft failure, and autoimmune cytopenias.[1]

POLICY STATEMENT

Prior Authorization is recommended for medical benefit coverage of Omisirge. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indication. Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for one dose. The approval duration is 6 months to allow for an adequate timeframe to prepare and administer one dose of therapy.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Omisirge is recommended in those who meet the following criteria:

FDA-Approved Indication

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1. **Umbilical Cord Blood Transplantation.** Approve for one dose if the patient meets ALL of the following (A, B, and C):
   - **A)** Patient is ≥ 12 years of age; AND
   - **B)** Patient has a hematologic malignancy; AND
     Note: Examples of hematologic malignancies are acute myelogenous leukemia, acute lymphoblastic leukemia, and chronic myeloid leukemia.
   - **C)** Omisirge is prescribed by or in consultation with a hematologist, oncologist, transplant specialist physician, or a physician associated with a transplant center.

   Dosing. Approve a single dose of Omisirge given by intravenous infusion.
   Note: Omisirge is provided in two separate bags containing the two cryopreserved cell fractions (i.e., cultured fraction and non-cultured fraction).

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2. **Aplastic Anemia.** Approve for one dose if the patient meets ALL of the following (A, B, C, and D):
   - **A)** Patient is ≥ 6 years of age; AND
   - **B)** Patient has undergone reduced intensity conditioning treatment; AND
   - **C)** Patient meets ONE of the following (i or ii):
     - **i.** Patient has tried at least one immunosuppressant therapy; OR
       Note: Examples of immunosuppressant therapies include cyclosporine, Atgam (lymphocyte immune globulin, anti-thymocyte globulin [equine] sterile solution for intravenous use only), mycophenolate mofetil, or sirolimus.
     - **ii.** Patient has an intolerance to immunosuppressant therapy; AND
   - **D)** Omisirge is prescribed by or in consultation with a hematologist.

Dosing. Approve a single dose of Omisirge given by intravenous infusion.
Note**:** Omisirge is provided in two separate bags containing the two cryopreserved cell fractions (i.e., cultured fraction and non-cultured fraction).

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Omisirge is not recommended in the following situations:

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Omisirge® intravenous infusion [prescribing information]. Boston, MA: Gamida; December 2025.
2. The NCCN Hematopoietic Cell Transplantation (HCT) Guidelines in Oncology (version 3.2025 – September 24, 2025). © 2025 National Comprehensive Cancer Network. Available at: http://www.nccn.org. Accessed on August December 11,2025.
3. Bazinet A, Popradi G. A general practitioner's guide to hematopoietic stem-cell transplantation. *Curr Oncol*. 2019;26(3):187-191.
4. Sanchez-Petitto G, Rezvani K, Daher M, et al. Umbilical cord blood transplantation: connecting its origin to its future. *Stem Cells Transl Med*. 2023;12(2):55-71.
5. Gandhi AP, Newell LF, Maziarz RT. A new beginning: can omidubicel emerge as the next viable alternative donor source? *Ther Adv Hematol*. 2023;14:1-14.
6. Dehn J, Spellman S, Hurley CK, et al. Selection of unrelated donors and cord blood units for hematopoietic cell transplantation: guidelines from the NMDP/CIBMTR. *Blood*. 2019;134(12):924-934.
7. Kulasekararaj A, Cavenagh J, Dokal I, et al, on behalf of the British Society of Hematology. Guidelines for the diagnosis and management of adult aplastic anemia: a British Society for Hematology Guideline. *Br J Haematol*. 2024;204:784-804.
8. Scheinberg P and Kulasekararaj A. Consensus recommendations for severe aplastic anemia. *Blood Advances*. 2024;8(21):5719-5720.

HISTORY

Type of Revision	Summary of Changes	Review Date
New Policy	--	08/09/2023
Annual Revision	No criteria changes.	09/11/2024
Annual Revision	No criteria changes.	09/03/2025
Selected Revision	The policy was renamed to as listed. Previously, it was Transplantation – Omisirge UM policy. The condition of approval **Aplastic Anemia** was added to the policy. The requirement for this indication are as follows: patient is ≥ 6 years of age; patient has undergone reduced conditioning treatment; patient has tried at least one immunosuppressant therapy or has an intolerance to immunosuppressant therapy; and the medication is prescribed by or in consultation with a hematologist.	12/30/2025