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Policy Effective Date	11/01/2025

Collection and Storage of Umbilical Cord Blood Stem Cells

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Disclaimer

Carefully check state regulations and/or the member contract.

Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

Coverage

Collection and storage of umbilical cord blood (UCB) stem cells **may be considered medically necessary** when there is a planned allogeneic transplant in an identified recipient (e.g., a sibling) with a medical condition (malignant or genetic) who could potentially benefit from an allogeneic transplant.

Prophylactic or routine collection and storage of UCB stem cells **is considered not medically necessary** when proposed for an unspecified future use.

Policy Guidelines

None.

Description

A variety of malignant diseases and nonmalignant bone marrow disorders are treated with myeloablative therapy followed by infusion of the allogeneic stem and progenitor cells

collected from immunologically compatible donors, either family members or an unrelated donor identified through a bone marrow donor bank. In some cases, a suitable donor is not found.

Blood harvested from the umbilical cord and placenta shortly after delivery of neonates contains stem and progenitor cells capable of restoring hematopoietic function after myeloablation. This cord blood has been used as an alternative source of allogeneic stem cells. Cord blood is readily available and is thought to be antigenically “naive,” thus potentially minimizing the incidence of graft-versus-host disease (GVHD) and permitting the broader use of unrelated cord blood transplants. Unrelated donors are typically typed at low resolution for human leukocyte antigen (HLA)-A and -B and at high resolution only for HLA DR; HLA matching at 4 of 6 loci is considered acceptable. Under this matching protocol, an acceptable donor can be identified for almost any patient.

Several cord blood banks have been created in the United States and Europe. In addition to obtaining cord blood for specific related or unrelated patients, some cord blood banks collect and store neonate cord blood for some unspecified future use in the unlikely event that the child develops a condition that would require autologous transplantation. Also, some neonate cord blood is collected and stored for use by a sibling in whom an allogeneic transplant is anticipated due to a history of leukemia or other condition requiring an allogeneic transplant.

Rationale

This policy is based on a review of relevant professional association recommendations.

American Academy of Pediatrics

In 2017, a position statement on cord blood banking for potential future transplantation was published by the American Academy of Pediatrics (AAP). (1) The Academy recommended cord blood banking for public use, with a more limited role for private cord blood banking for families with a known fatal illness that could be rescued by cord blood transplant. The AAP went on to state that although private cord blood banks serve parents who elect to store cord blood for potential self-use later in life, there is little evidence supporting use for this purpose.

American College of Obstetricians and Gynecologists

In 2015, with an update in 2019, the American College of Obstetricians and Gynecologists published an opinion on umbilical cord blood (UCB) banking. (2) The statement discussed counseling patients on options for UCB banking, as well as the benefits and limitations of this practice. The relevant recommendations included the following:

- “Umbilical cord blood collected from a neonate cannot be used to treat a genetic disease or malignancy in that same individual (autologous transplant) because stored cord blood contains the same genetic variant or premalignant cells that led to the condition being treated.

- The routine collection and storage of umbilical cord blood with a private cord blood bank is not supported by the available evidence.
- The current indications for umbilical cord blood transplantation are limited to select genetic, hematologic, and malignant disorders.
- Private umbilical cord blood banking may be considered when there is knowledge of a family member with a medical condition (malignant or genetic) who could potentially benefit from cord blood transplantation.”

Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member’s benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

CPT Codes	38205, 38206, 38207, 88240
HCPCS Codes	S2140

*Current Procedural Terminology (CPT®) ©2024 American Medical Association: Chicago, IL.

References

1. Shearer WT, Lubin BH, Cairo MS, et al. Cord Blood Banking for Potential Future Transplantation. Pediatrics. Nov 2017; 140(5):e20172695. PMID 29084832
2. ACOG Committee Opinion No. 771: Umbilical Cord Blood Banking. Obstet Gynecol. Mar 2019; 133(3):e249-e253. PMID 30801478

Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been developed since this medical policy document was written. See Medicare's National Coverage at <<https://www.cms.hhs.gov>>.

Policy History/Revision

Date	Description of Change
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11/01/2025	New medical document. Collection and storage of umbilical cord blood (UCB) stem cells may be considered medically necessary when there is a planned allogeneic transplant in an identified recipient (e.g., a sibling) with a medical condition (malignant or genetic) who could potentially benefit from an allogeneic transplant. Prophylactic or routine collection and storage of UCB stem cells is considered not medically necessary when proposed for an unspecified future use.
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