

To all beneficiaries enrolled in a Prepaid Health Plan (PHP): for questions about benefits and services available on or after implementation, please contact your PHP.

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**NC Medicaid
Placental and Umbilical Cord
Blood as a Source of Stem Cells**

**Medicaid
Clinical Coverage Policy No: 11A-14
Amended Date: August 15, 2023**

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1.0 Description of the Procedure, Product, or Service

This policy addresses NC Medicaid beneficiaries' collection, storage, and transplantation of placental and umbilical cord blood ("cord blood") as a source of stem cells for allogeneic and autologous stem-cell transplantation. Potential indications for use of cord blood are included in the disease-specific reference policies.

Background

A variety of malignant diseases and nonmalignant bone marrow disorders are treated with myeloablative therapy followed by infusion of allogeneic stem and progenitor cells collected from immunologically compatible donors, either from 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 hopefully 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 antigens (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 now been developed in Europe and in the U.S.

The U.S. Food and Drug Administration (FDA) require licensing of establishments and their products for unrelated-donor allogeneic transplant of minimally manipulated placental and umbilical cord blood stem cells. Facilities that prepare cord blood units only for autologous or related-donor transplants are required to register and list their products, adhere to Good Tissue Practices issued by the FDA, and use applicable processes for donor suitability determination.

Other cord blood banks are offering the opportunity of collecting and storing a neonate's cord blood for some unspecified future use in the unlikely event that the child develops a condition that would require autologous transplantation. In addition, some cord blood is collected and stored from a neonate for use by a sibling in whom an allogeneic transplant is anticipated due to a history of leukemia or other condition requiring allogeneic transplant.

1.1 Definitions

None Apply.

2.0 Eligibility Requirements

2.1 Provisions

2.1.1 General

(The term “General” found throughout this policy applies to all Medicaid policies)

- a. An eligible beneficiary shall be enrolled in the NC Medicaid Program (*Medicaid is NC Medicaid program, unless context clearly indicates otherwise*); or
- b. Provider(s) shall verify each Medicaid beneficiary’s eligibility each time a service is rendered.
- c. The Medicaid beneficiary may have service restrictions due to their eligibility category that would make them ineligible for this service.

2.1.2 Specific

(The term “Specific” found throughout this policy only applies to this policy)

- a. **Medicaid**
None Apply.

2.2 Special Provisions

2.2.1 EPSDT Special Provision: Exception to Policy Limitations for a Medicaid Beneficiary under 21 Years of Age

- a. **42 U.S.C. § 1396d(r) [1905(r) of the Social Security Act]**

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) is a federal Medicaid requirement that requires the state Medicaid agency to cover services, products, or procedures for Medicaid beneficiary under 21 years of age **if** the service is **medically necessary health care** to correct or ameliorate a defect, physical or mental illness, or a condition [health problem] identified through a screening examination (includes any evaluation by a physician or other licensed practitioner).

This means EPSDT covers most of the medical or remedial care a child needs to improve or maintain his or her health in the best condition possible, compensate for a health problem, prevent it from worsening, or prevent the development of additional health problems.

Medically necessary services will be provided in the most economic mode, as long as the treatment made available is similarly efficacious to the service requested by the beneficiary’s physician, therapist, or other licensed practitioner; the determination process does not delay the delivery of the needed service; and the determination does not limit the beneficiary’s right to a free choice of providers.

EPSDT does not require the state Medicaid agency to provide any service, product or procedure:

1. that is unsafe, ineffective, or experimental or investigational.
2. that is not medical in nature or not generally recognized as an accepted method of medical practice or treatment.

Service limitations on scope, amount, duration, frequency, location of service, and other specific criteria described in clinical coverage policies may be exceeded or may not apply as long as the provider's documentation shows that the requested service is medically necessary "to correct or ameliorate a defect, physical or mental illness, or a condition" [health problem]; that is, provider documentation shows how the service, product, or procedure meets all EPSDT criteria, including to correct or improve or maintain the beneficiary's health in the best condition possible, compensate for a health problem, prevent it from worsening, or prevent the development of additional health problems.

b. EPSDT and Prior Approval Requirements

1. If the service, product, or procedure requires prior approval, the fact that the beneficiary is under 21 years of age does **NOT** eliminate the requirement for prior approval.
2. **IMPORTANT ADDITIONAL INFORMATION** about EPSDT and prior approval is found in the *NCTracks Provider Claims and Billing Assistance Guide*, and on the EPSDT provider page. The Web addresses are specified below.

NCTracks Provider Claims and Billing Assistance Guide:

<https://www.nctracks.nc.gov/content/public/providers/provider-manuals.html>

EPSDT provider page: <https://medicaid.ncdhhs.gov/>

3.0 When the Procedure, Product, or Service Is Covered

Note: Refer to Subsection 2.2.1 regarding EPSDT Exception to Policy Limitations for Medicaid Beneficiaries under 21 Years of Age.

3.1 General Criteria Covered

Medicaid shall cover the procedure, product, or service related to this policy when medically necessary, and:

- a. the procedure, product, or service is individualized, specific, and consistent with symptoms or confirmed diagnosis of the illness or injury under treatment, and not in excess of the beneficiary's needs;
- b. the procedure, product, or service can be safely furnished, and no equally effective and more conservative or less costly treatment is available statewide; and
- c. the procedure, product, or service is furnished in a manner not primarily intended for the convenience of the beneficiary, the beneficiary's caretaker, or the provider.

3.2 Specific Criteria Covered

3.2.1 Specific criteria covered by Medicaid

Medicaid shall cover cord blood as a source of stem cells for stem cell transplantation in the following situations:

- a. Transplantation of cord blood stem cells from related or unrelated donors in beneficiaries with an appropriate indication for allogeneic stem cell transplantation; or

- a. Collection and storage of cord blood from a neonate when an allogeneic transplant is imminent in an identified beneficiary with a diagnosis that is consistent with the possible need for allogeneic transplant.

3.2.2 Medicaid Additional Criteria Covered

None Apply.

3.2.3 Policy Guidelines

The evidence for cord blood as a source of stem cells in individuals undergoing allogeneic stem cell transplant includes a number of observational studies, a meta-analysis of observational studies, and a randomized controlled trial (RCT) comparing outcomes after single or double cord blood units. Relevant outcomes are overall survival, disease-specific survival, hospitalizations, resource utilization, and treatment-related mortality and morbidity. The meta-analysis of observational studies found similar survival outcomes and lower graft versus host disease after cord blood transplantation than bone marrow transplantation. In the RCT, survival rates were similar after single-unit and double-unit cord blood transplantation. The evidence is sufficient to determine qualitatively that the technology results in a meaningful improvement in the net health outcome. The evidence for prophylactic collection and storage of cord blood from a neonate for individuals with an unspecified potential future need for stem cell transplant includes no published studies. Relevant outcomes are resource utilization. The evidence is insufficient to determine the effects of the technology on health outcomes.

4.0 When the Procedure, Product, or Service Is Not Covered

Note: Refer to Subsection 2.2.1 regarding EPSDT Exception to Policy Limitations for Medicaid Beneficiaries under 21 Years of Age.

4.1 General Criteria Not Covered

Medicaid shall not cover the procedure, product, or service related to this policy when:

- a. the beneficiary does not meet the eligibility requirements listed in **Section 2.0**;
- b. the beneficiary does not meet the criteria listed in **Section 3.0**;
- c. the procedure, product, or service duplicates another provider's procedure, product, or service;
- d. or the procedure, product, or service is experimental, investigational, or part of a clinical trial

4.2 Specific Criteria Not Covered

4.2.1 Specific Criteria Not Covered by Medicaid

Medicaid shall not cover cord blood as a source of stem cells for stem cell transplantation in the following situations:

- a. When the criteria in **Subsection 3.2** of this policy are not met; or
- b. When prophylactic collection and storage of cord blood from a neonate is proposed for unspecified future use as an autologous stem-cell transplant in the original donor, or for unspecified future use as an allogeneic stem cell transplant in a related or unrelated recipient.

4.2.2 Medicaid Additional Criteria Not Covered

None Apply.

5.0 Requirements for and Limitations on Coverage

Note: Refer to Subsection 2.2.1 regarding EPSDT Exception to Policy Limitations for Medicaid Beneficiaries under 21 Years of Age.

5.1 Prior Approval

Medicaid shall not require prior approval for the use of cord blood as a source of stem cells for stem cell transplantation.

5.2 Prior Approval Requirements

5.2.1 General

None Apply.

5.2.2 Specific

None Apply.

6.0 Providers Eligible to Bill for the Procedure, Product, or Service

To be eligible to bill for the procedure, product, or service related to this policy, the provider(s) shall:

- a. meet Medicaid qualifications for participation;
- b. have a current and signed Department of Health and Human Services (DHHS) Provider Administrative Participation Agreement; and
- c. bill only for procedures, products, and services that are within the scope of their clinical practice, as defined by the appropriate licensing entity.

7.0 Additional Requirements

Note: Refer to Subsection 2.2.1 regarding EPSDT Exception to Policy Limitations for a Medicaid Beneficiary under 21 Years of Age.

7.1 Compliance

Provider(s) shall comply with the following in effect at the time the service is rendered:

- a. All applicable agreements, federal, state and local laws and regulations including the Health Insurance Portability and Accountability Act (HIPAA) and record retention requirements; and
- b. All NC Medicaid's clinical (medical) coverage policies, guidelines, policies, provider manuals, implementation updates, and bulletins published by the Centers for Medicare and Medicaid Services (CMS), DHHS, DHHS division(s) or fiscal contractor(s).

8.0 Policy Implementation/Revision Information

Original Effective Date: January 1, 2005

Revision Information:

| Date | Section Revised | Change |
|------------|--|--|
| 07/01/2005 | Throughout | Medicaid policy was updated to include coverage criteria effective with approved date of State Plan amendment 4/1/05. |
| 09/01/2005 | Section 2.2 | Medicaid: The special provision related to EPSDT was revised. |
| 12/01/2005 | Section 2.2 | Medicaid: The web address for DMA's EDPST policy instructions was added to this section. |
| 12/01/2006 | Sections 2.2 | Medicaid: The special provision related to EPSDT was revised. |
| 12/01/2006 | Sections 3.0 and 4.0 | Medicaid: A note regarding EPSDT was added to these sections. |
| 05/01/2007 | Sections 2 through 4 | Medicaid: EPSDT information was revised to clarify exceptions to policy limitations for recipients under 21 years of age. |
| 05/01/2007 | Attachment A | Medicaid: Added the UB-04 as an accepted claims form. |
| 07/01/2010 | Throughout | NCHC: Session Law 2009-451, Section 10.31(a) Transition of NC Health Choice Program administrative oversight from the State Health Plan to the Division of Medical Assistance (DMA) in the NC Department of Health and Human Services. |
| 03/01/2012 | Section 5.1 and Attachment A (c) Procedure codes & Descriptions | Policy was updated to include coverage criteria and requirements to meet current community standards of practice. |
| 03/01/2012 | Throughout | Policy updated to reflect current community standards and changing transplant protocols. |
| 03/01/2012 | Throughout | To be equivalent where applicable to NC DMA's Clinical Coverage Policy # 11-14 under Session Law 2011-145, § 10.41.(b) |
| 03/12/2012 | Throughout | Technical changes to merge Medicaid and NCHC current coverage into one policy. |
| 03/12/2012 | Attachment A | Removed CPT codes 38242 and 38230, as cord blood is not currently a viable source of donor lymphocytes. |
| 03/12/2012 | Attachment A | Medicaid: Added the UB-04 as an accepted claims form |
| 10/01/2015 | All Sections and Attachments | Updated policy template language and added ICD-10 codes to comply with federally mandated 10/1/2015 implementation where applicable. |
| 03/01/2017 | Attachment A, Section B | ICD-10 updated changes |
| 03/15/2019 | Table of Contents | Added, "To all beneficiaries enrolled in a Prepaid Health Plan (PHP): for questions about benefits and services available on or after November 1, 2019, please contact your PHP." |

| Date | Section Revised | Change |
|-------------|------------------------------|--|
| 03/15/2019 | All Sections and Attachments | Updated policy template language. |
| 10/01/2019 | Section 3.2.1 | Updated criteria to allow the use of cord blood in any case where allogeneic transplant would be indicated. |
| 10/01/2019 | Section 3.2.4 | Policy Guidelines added discussing use of cord blood. |
| 10/01/2019 | Attachment A | Added the UB-04 as an accepted claims form. Removed all CPT, HCPCS, and ICD-10 codes. |
| 01/15/2020 | Table of Contents | Updated policy template language, “To all beneficiaries enrolled in a Prepaid Health Plan (PHP): for questions about benefits and services available on or after implementation, please contact your PHP.” |
| 01/15/2020 | Attachment A | Added, “Unless directed otherwise, Institutional Claims must be billed according to the National Uniform Billing Guidelines. All claims must comply with National Coding Guidelines”. |
| 07/01/2021 | Section 5.1 | Removed statement referring to prior approval and donor expenses. Prior approval requirement removed from stem cell transplants. Donor expenses discussed in Attachment A, Section I. |
| 8/15/2023 | All Sections and Attachments | Updated policy template language due to North Carolina Health Choice Program’s move to Medicaid. Policy posted 8/15/2023 with an effective date of 4/1/2023. |

Attachment A: Claims-Related Information

Provider(s) shall comply with the, *NCTracks Provider Claims and Billing Assistance Guide*, Medicaid bulletins, fee schedules, NC Medicaid's clinical coverage policies and any other relevant documents for specific coverage and reimbursement for Medicaid:

A. Claim Type

Professional (CMS-1500/837P transaction)

Institutional (UB-04/83711)

Unless directed otherwise, Institutional Claims must be billed according to the National Uniform Billing Guidelines. All claims must comply with National Coding Guidelines.

B. International Classification of Diseases and Related Health Problems, Tenth Revisions, Clinical Modification (ICD-10-CM) and Procedural Coding System (PCS)

Provider(s) shall report the ICD-10-CM and Procedural Coding System (PCS) to the highest level of specificity that supports medical necessity. Provider(s) shall use the current ICD-10 edition and any subsequent editions in effect at the time of service. Provider(s) shall refer to the applicable edition for code description, as it is no longer documented in the policy.

C. Code(s)

Provider(s) shall report the most specific billing code that accurately and completely describes the procedure, product or service provided. Provider(s) shall use the Current Procedural Terminology (CPT), Health Care Procedure Coding System (HCPCS), and UB-04 Data Specifications Manual (for a complete listing of valid revenue codes) and any subsequent editions in effect at the time of service. Provider(s) shall refer to the applicable edition for the code description, as it is no longer documented in the policy.

If no such specific CPT or HCPCS code exists, then the provider(s) shall report the procedure, product or service using the appropriate unlisted procedure or service code.

Unlisted Procedure or Service

CPT: The provider(s) shall refer to and comply with the Instructions for Use of the CPT Codebook, Unlisted Procedure or Service, and Special Report as documented in the current CPT in effect at the time of service.

HCPCS: The provider(s) shall refer to and comply with the Instructions for Use of HCPCS National Level II codes, Unlisted Procedure or Service and Special Report as documented in the current HCPCS edition in effect at the time of service.

D. Modifiers

Provider(s) shall follow applicable modifier guidelines.

E. Billing Units

Provider(s) shall report the appropriate code(s) used which, determines the billing unit(s).

F. Place of Service

Inpatient hospital, Outpatient hospital

G. Co-payments

For Medicaid refer to Medicaid State Plan:

<https://medicaid.ncdhhs.gov/meetings-notices/medicaid-state-plan-public-notices>

H. Reimbursement

Provider(s) shall bill their usual and customary charges.

For a schedule of rates, refer to: <https://medicaid.ncdhhs.gov/>

I. Billing for Donor Expenses

Billing for Donor Expenses for Medicaid Beneficiaries

Donor transplant-related medical expenses are billed on the Medicaid beneficiary's transplant claim using the beneficiary's Medicaid identification number.

Medicaid reimburses only for the actual donor's transplant-related medical expenses.

Medicaid does not reimburse for unsuccessful donor searches.