

<b>CMS Manual System</b>	<b>Department of Health &amp; Human Services (DHHS)</b>
<b>Pub 100-03 Medicare National Coverage Determinations</b>	<b>Centers for Medicare &amp; Medicaid Services (CMS)</b>
<b>Transmittal 12627</b>	<b>Date: May 9, 2024</b>
	<b>Change Request 13604</b>

**SUBJECT: Allogeneic Hematopoietic Stem Cell Transplantation (HSCT) for Myelodysplastic Syndromes (MDS) National Coverage Determination (NCD) 110.23**

**I. SUMMARY OF CHANGES:** The purpose of this Change Request (CR) is to inform contractors that CMS is expanding Medicare coverage for allogeneic hematopoietic stem cell transplant using bone marrow, peripheral blood or umbilical cord blood stem cell products for Medicare patients with MDS who meet specific criteria.

The Federal government creates NCDs that are binding on the MACs who review and/or adjudicate claims, make coverage determinations, and/or payment decisions, and also binds quality improvement organizations, qualified independent contractors, the Medicare appeals council, and Administrative Law Judges (ALJs) (see 42 Code of Federal Regulations (CFR) section 405.1060(a)(4) (2005)). An NCD that expands coverage is also binding on a Medicare advantage organization. In addition, an ALJ may not review an NCD. (See section 1869(f)(1)(A)(i) of the Social Security Act.)

**EFFECTIVE DATE: March 6, 2024**

*\*Unless otherwise specified, the effective date is the date of service.*

**IMPLEMENTATION DATE: October 7, 2024**

**Disclaimer for manual changes only: The revision date and transmittal number apply only to red italicized material. Any other material was previously published and remains unchanged. However, if this revision contains a table of contents, you will receive the new/revised information only, and not the entire table of contents.**

**II. CHANGES IN MANUAL INSTRUCTIONS:** (N/A if manual is not updated)

R=REVISED, N=NEW, D=DELETED-Only One Per Row.

<b>R/N/D</b>	<b>CHAPTER / SECTION / SUBSECTION / TITLE</b>
R	1/110/23/Stem Cell Transplantation (Formerly 110.8.1) (Various Effective Dates Below)

**III. FUNDING:**

**For Medicare Administrative Contractors (MACs):**

The Medicare Administrative Contractor is hereby advised that this constitutes technical direction as defined in your contract. CMS does not construe this as a change to the MAC Statement of Work. The contractor is not obligated to incur costs in excess of the amounts allotted in your contract unless and until specifically authorized by the Contracting Officer. If the contractor considers anything provided, as described above, to be outside the current scope of work, the contractor shall withhold performance on the part(s) in question and immediately notify the Contracting Officer, in writing or by e-mail, and request formal directions regarding continued performance requirements.

#### **IV. ATTACHMENTS:**

**Business Requirements  
Manual Instruction**

# Attachment - Business Requirements

Pub. 100-03	Transmittal: 12627	Date: May 9, 2024	Change Request: 13604
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**SUBJECT: Allogeneic Hematopoietic Stem Cell Transplantation (HSCT) for Myelodysplastic Syndromes (MDS) National Coverage Determination (NCD) 110.23**

**EFFECTIVE DATE: March 6, 2024**

*\*Unless otherwise specified, the effective date is the date of service.*

**IMPLEMENTATION DATE: October 7, 2024**

## I. GENERAL INFORMATION

**A. Background:** The purpose of this Change Request (CR) is to inform contractors that CMS is expanding Medicare coverage for allogeneic hematopoietic stem cell transplant using bone marrow, peripheral blood or umbilical cord blood stem cell products for Medicare patients with MDS who meet specific criteria.

Hematopoietic stem cell transplantation (HSCT) is a process that includes mobilization, harvesting, and transplant of stem cells and the administration of high dose chemotherapy and/or radiotherapy prior to the actual transplant. During the process stem cells are harvested from either the patient (autologous) or a donor (allogeneic) and subsequently administered by intravenous infusion to the patient.

Myelodysplastic Syndromes (MDS) are a heterogeneous group of hematologic disorders characterized by (1) cytopenia (decreased number of red blood cells, white blood cells and platelets) due to bone marrow failure and (2) the potential development of acute myeloid leukemia (AML). The bone marrow does not produce enough healthy, functioning blood cells. For treatment purposes, patients with MDS are often stratified into risk groups based on the potential development of AML, which varies widely across MDS subtypes.

**B. Policy:** On March 6, 2024, CMS issued a final decision under National Coverage Determination (NCD) 110.23 to expand Medicare coverage for allogeneic hematopoietic stem cell transplant using bone marrow, peripheral blood or umbilical cord blood stem cell products for Medicare patients with MDS who have prognostic risk scores of:

- $\geq 1.5$  (Intermediate-2 or high) using the International Prognostic Scoring System (IPSS), or
- $\geq 4.5$  (high or very high) using the International Prognostic Scoring System - Revised (IPSS-R), or
- $\geq 0.5$  (high or very high) using the Molecular International Prognostic Scoring System (IPSS-M).

For these patients, the evidence demonstrates that the treatment is reasonable and necessary under section 1862(a)(1)(A) of the Social Security Act (the Act).

In addition, coverage of all other indications for stem cell transplantation not otherwise specified will be made by local Medicare Administrative Contractors (MACs) under section 1862(a)(1)(A) of the Act.

Refer to Publication (Pub) 100-03, NCD Manual, chapter 1, section 110.23, for information regarding this NCD and Pub. 100-04, Claims Processing Manual (CPM), chapter 3, section 90.3.1 for further billing instructions.

## II. BUSINESS REQUIREMENTS TABLE

*"Shall" denotes a mandatory requirement, and "should" denotes an optional requirement.*

Number	Requirement	Responsibility								
		A/B MAC			DME MAC	Shared-System Maintainers				Other
		A	B	HHH		FISS	MCS	VMS	CWF	
13604 - 03.1	<p>Effective for claims with dates of service on and after March 6, 2024, contractors shall be aware that Medicare is expanding coverage for allogeneic hematopoietic stem cell transplant using bone marrow, peripheral blood or umbilical cord blood stem cell products for Medicare patients with myelodysplastic syndromes who have prognostic risk scores of:</p> <ul style="list-style-type: none"> <li>• <math>\geq 1.5</math> (Intermediate-2 or high) using the International Prognostic Scoring System (IPSS), or</li> <li>• <math>\geq 4.5</math> (high or very high) using the International Prognostic Scoring System - Revised (IPSS-R), or</li> <li>• <math>\geq 0.5</math> (high or very high) using the Molecular International Prognostic Scoring System (IPSS-M).</li> </ul> <p>In addition, coverage of all other indications for stem cell transplantation not otherwise specified will be made by local Medicare Administrative Contractors under section 1862(a)(1)(A) of the Act. Please see Pub. 100-03, chapter 1, section 110.23, of the NCD Manual, and Pub. 100-04, chapter 3, section 90.3.1, of the Claims Processing Manual, for further instructions.</p>	X	X							

**III. PROVIDER EDUCATION TABLE**

Number	Requirement	Responsibility				
		A/B MAC			DME MAC	CEDI
		A	B	HHH		
13604 - 03.2	Medicare Learning Network® (MLN): CMS will develop and release national provider education content and market it through the MLN Connects® newsletter shortly after we issue the CR. MACs shall link to relevant information on your website and follow IOM Pub. No. 100-09 Chapter 6, Section 50.2.4.1 for distributing the newsletter to providers. When you follow this manual section, you don't need to separately track and report MLN content releases. You may supplement with your local educational content after we release the newsletter.	X	X			

**IV. SUPPORTING INFORMATION**

**Section A: Recommendations and supporting information associated with listed requirements: N/A**

*"Should" denotes a recommendation.*

X-Ref Requirement Number	Recommendations or other supporting information:

**Section B: All other recommendations and supporting information: N/A**

**V. CONTACTS**

**Post-Implementation Contact(s):** Contact your Contracting Officer's Representative (COR).

**VI. FUNDING**

**Section A: For Medicare Administrative Contractors (MACs):**

The Medicare Administrative Contractor is hereby advised that this constitutes technical direction as defined in your contract. CMS does not construe this as a change to the MAC Statement of Work. The contractor is not obligated to incur costs in excess of the amounts allotted in your contract unless and until specifically authorized by the Contracting Officer. If the contractor considers anything provided, as described above, to be outside the current scope of work, the contractor shall withhold performance on the part(s) in question and immediately notify the Contracting Officer, in writing or by e-mail, and request formal directions regarding continued performance requirements.

**ATTACHMENTS: 0**

# **Medicare National Coverage Determinations Manual**

## **Chapter 1, Part 2 (Sections 90 – 160.26)**

### **Coverage Determinations**

*Table of Contents*  
*(Rev. 12627; Issued:05-09-24)*

**110.23 - Stem Cell Transplantation (Formerly 110.8.1) (Various Effective Dates Below)**  
*(Rev. 12627; Issued:05-09-24; Effective: 03-06-24; Implementation:10-07-24)*

**A. General**

Stem cell transplantation is a process in which stem cells are harvested from either a patient's (autologous) or donor's (allogeneic) bone marrow or peripheral blood for intravenous infusion. Autologous stem cell transplantation (AuSCT) is a technique for restoring stem cells using the patient's own previously stored cells. AuSCT must be used to effect hematopoietic reconstitution following severely myelotoxic doses of chemotherapy (HDCT) and/or radiotherapy used to treat various malignancies. Allogeneic hematopoietic stem cell transplantation (HSCT) is a procedure in which a portion of a healthy donor's stem cell or bone marrow is obtained and prepared for intravenous infusion. Allogeneic HSCT may be used to restore function in recipients having an inherited or acquired deficiency or defect. Hematopoietic stem cells are multi-potent stem cells that give rise to all the blood cell types; these stem cells form blood and immune cells. A hematopoietic stem cell is a cell isolated from blood or bone marrow that can renew itself, differentiate to a variety of specialized cells, can mobilize out of the bone marrow into circulating blood, and can undergo programmed cell death, called apoptosis - a process by which cells that are unneeded or detrimental will self-destruct.

The Centers for Medicare & Medicaid Services (CMS) is clarifying that bone marrow and peripheral blood stem cell transplantation is a process which includes mobilization, harvesting, and transplant of bone marrow or peripheral blood stem cells and the administration of high dose chemotherapy or radiotherapy prior to the actual transplant. When bone marrow or peripheral blood stem cell transplantation is covered, all necessary steps are included in coverage. When bone marrow or peripheral blood stem cell transplantation is non-covered, none of the steps are covered.

**B. Nationally Covered Indications**

**I. Allogeneic Hematopoietic Stem Cell Transplantation (HSCT)**

- a) Effective for services performed on or after August 1, 1978, for the treatment of leukemia, leukemia in remission, or aplastic anemia when it is reasonable and necessary,
- b) Effective for services performed on or after June 3, 1985, for the treatment of severe combined immunodeficiency disease (SCID) and for the treatment of Wiskott-Aldrich syndrome, *and*
- c) Effective for services performed on or after March 6, 2024, allogeneic hematopoietic stem cell transplant using bone marrow, peripheral blood or umbilical cord blood stem cell products for Medicare patients with myelodysplastic syndromes who have prognostic risk scores of:*
  - $\geq 1.5$  (Intermediate-2 or high) using the International Prognostic Scoring System (IPSS), or*
  - $\geq 4.5$  (high or very high) using the International Prognostic Scoring System - Revised (IPSS-R), or*
  - $\geq 0.5$  (high or very high) using the Molecular International Prognostic Scoring System (IPSS-M).*

MDS refers to a group of diverse blood disorders in which the bone marrow does not produce enough healthy, functioning blood cells. These disorders are varied with regard to clinical characteristics, cytologic and pathologic features, and cytogenetics. The abnormal production of blood cells in the bone marrow leads to low blood cell counts, referred to as cytopenias, which are a hallmark feature of MDS along with a dysplastic and hypercellular-appearing bone marrow.

**II. Autologous Stem Cell Transplantation (AuSCT)**

- a) Effective for services performed on or after April 28, 1989, AuSCT is considered reasonable and necessary under §1862(a)(1)(A) of the Act for the following conditions and is covered under Medicare for patients with:

1. Acute leukemia in remission who have a high probability of relapse and who have no human leucocyte antigens (HLA)-matched;
2. Resistant non-Hodgkin's lymphomas or those presenting with poor prognostic features following an initial response;
3. Recurrent or refractory neuroblastoma; or,
4. Advanced Hodgkin's disease who have failed conventional therapy and have no HLA-matched donor.

b) Effective October 1, 2000, single AuSCT is only covered for Durie-Salmon Stage II or III patients that fit the following requirements:

- Newly diagnosed or responsive multiple myeloma. This includes those patients with previously untreated disease, those with at least a partial response to prior chemotherapy (defined as a 50% decrease either in measurable paraprotein [serum and/or urine] or in bone marrow infiltration, sustained for at least 1 month), and those in responsive relapse; and
- Adequate cardiac, renal, pulmonary, and hepatic function.

c) Effective for services performed on or after March 15, 2005, when recognized clinical risk factors are employed to select patients for transplantation, high dose melphalan (HDM) together with AuSCT is reasonable and necessary for Medicare beneficiaries of any age group with primary amyloid light chain (AL) amyloidosis who meet the following criteria:

- Amyloid deposition in 2 or fewer organs; and,
- Cardiac left ventricular ejection fraction (EF) greater than 45%.

## **C. Nationally Non-Covered Indications**

### **I. Allogeneic Hematopoietic Stem Cell Transplantation (HSCT)**

Effective for claims with dates of service on or after May 24, 1996, through January 26, 2016, allogeneic HSCT is not covered as treatment for multiple myeloma.

### **II. Autologous Stem Cell Transplantation (AuSCT)**

Insufficient data exist to establish definite conclusions regarding the efficacy of AuSCT for the following conditions:

- a) Acute leukemia not in remission;
- b) Chronic granulocytic leukemia;
- c) Solid tumors (other than neuroblastoma);
- d) Up to October 1, 2000, multiple myeloma;
- e) Tandem transplantation (multiple rounds of AuSCT) for patients with multiple myeloma;
- f) Effective October 1, 2000, non-primary AL amyloidosis; and,
- g) Effective October 1, 2000, through March 14, 2005, primary AL amyloidosis for Medicare beneficiaries age 64 or older.

In these cases, AuSCT is not considered reasonable and necessary within the meaning of §1862(a)(1)(A) of the Act and is not covered under Medicare.

## **D. Other**

*Coverage of all other indications for stem cell transplantation not otherwise specified above as covered or non-covered will be made by local Medicare Administrative Contractors under section 1862(a)(1)(A).*

**(This NCD last reviewed *March 2024*.)**