

Molina Clinical Policy

Hematopoietic Stem Cell Transplantation for Hodgkin and Non-Hodgkin Lymphoma: Policy No. 125

Last Approval: 02/14/2024

Next Review Due By: February 2025



DISCLAIMER

This Molina Clinical Policy (MCP) is intended to facilitate the Utilization Management process. Policies are not a supplementation or recommendation for treatment; Providers are solely responsible for the diagnosis, treatment, and clinical recommendations for the Member. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (e.g., will be paid for by Molina) for a particular Member. The Member's benefit plan determines coverage – each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their Providers will need to consult the Member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a Member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid Members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this MCP and provide the directive for all Medicare members. References included were accurate at the time of policy approval and publication.

OVERVIEW

Lymphomas are neoplasms of the lymphatic system, a network of blood-filtering tissues that help fight infection and disease found in the lymph nodes, spleen, thymus gland, adenoids, tonsils, and bone marrow. Lymphomas affect lymphocytes which are specialized white blood cells responsible for immunity. Two major types of lymphoma are Hodgkin's lymphoma and non-Hodgkin's lymphoma. Hodgkin's lymphoma tends to spread in an orderly manner, typically from one group of lymph nodes to another, whereas non-Hodgkin's lymphoma tends to spread quickly and without order. Both types are found among all age groups. Treatment depends on the type, subtype, and pathobiology of the specific lymphoma present, as well as prognosis. Often treatment is combination of chemotherapy, radiation, immunotherapy, CAR T-cell therapy, and/or bone marrow or hematopoietic stem cell transplantation. Typically, Hodgkin's lymphoma has the better outcomes, with patients going on to live a long and healthy life after successful treatment.

Hodgkin's Lymphoma is a lymphoid neoplasm marked by the presence of Reed-Sternberg cells and non-neoplastic inflammatory cells. There are two types of Hodgkin's lymphoma, classical and nodular lymphocyte-predominant Hodgkin's lymphoma. Most cases are the classical type which includes four subtypes: nodular sclerosing; mixed cellularity; lymphocyte-depleted; lymphocyte-rich classic. Symptoms accompanying classical type tend to be lymphadenopathy, mediastinal mass, fever, night sweats, and weight loss. Nodular lymphocyte-predominant Hodgkin's lymphoma typically presents as a chronic asymptomatic swollen peripheral lymph node easily detected on physical exam, with no additional signs or symptoms of cancer at diagnosis. Treatment typically differs from classic Hodgkin's lymphoma. (LaCasce et al. 2022; Aster et al. 2023).

Non-Hodgkin's Lymphoma is a diverse group of lymphoid tissue malignancies that arise from immature or mature B cells and T cells, and sometimes natural killer cells. There are various subtypes including diffuse large B cell lymphoma, Mantle cell lymphoma, Burkitt's lymphoma, follicular lymphoma, and more. Dependent on the subtype, non-Hodgkin's lymphoma can either present insidiously with chronic waxing and waning lymphadenopathy, paired with hepatosplenomegaly and occasionally cytopenias; or the presentation is sudden and aggressive with accompanying rapid mass growth, fever, night sweats, weight loss, and sometimes tumor lysis syndrome. (Brown and Freedman 2023; Freedman et al. 2022)

Hematopoietic Stem Cell Transplantation (HSCT) refers to transplantation of hematopoietic stem cells (HSCs) from a donor into a patient. HSCs are immature cells that can develop into any of the three types of blood cells (red cells, white cells, or platelets). HSCs are created in the bone marrow and are found there, in peripheral blood, and in high concentrations in umbilical-cord blood. Hematopoietic stem cell transplantation (HSCT) can be autologous (using the patient's own stem cells) or allogeneic (using stem cells from a donor). In allogeneic HSCT, it is preferable for donors to have a human leukocyte antigen (HLA) type that is identical to the recipient. Matching is performed based on variability at three of more loci of the HLA gene (e.g., HLA-A, HLA-B, HLA-DRB1). As HLA variability increases, transplant-related morbidity, and mortality (including graft rejection and graft-versus-host disease) also increases.

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COVERAGE POLICY

All **transplants** require prior authorization from the Corporate Transplant Department. The Corporate Senior Medical Director or qualified clinical designee will review solid organ transplant requests. All other transplants will be reviewed by the Corporate Senior Medical Director or covering Medical Director. If the criteria are met using appropriate NCD and/or LCD guidelines, State regulations, and/or MCP policies the Corporate Senior Medical Director's designee can approve the requested transplant.

Office visits with participating Providers do NOT require prior authorization. Providers should see the Member in office visits as soon as possible and without delay. Failure to see the Member in office visits may be considered a serious quality of care concern.

Transplant Evaluation

Please see MCP-323 Pre-Transplant Evaluation for additional criteria and information.

Criteria for transplant evaluation include:

1. History and physical examination
2. Psychosocial evaluation and clearance:
 - a. Absence of any history of medical treatment non-compliance
 - b. Member understands surgical risk and post procedure follow – up required
 - c. Adequate family and social support
 - d. No behavioral health disorder by history or psychosocial issues:
 - i. If history of behavioral health disorder, no severe psychosis or personality disorder may be present
 - ii. Mood/anxiety disorder must be excluded, unless actively treated and controlled
3. EKG
4. Chest x-ray
5. Cardiac clearance in the presence of any of the following:
 - a. Chronic smokers
 - b. Members > 50 years age
 - c. Those with a clinical or family history of heart disease or diabetes.
6. Pulmonary clearance if evidence of pulmonary artery hypertension or chronic pulmonary disease
7. Neurological exam and clearance for transplant including **ONE** of the following:
 - a. Normal neurologic exam
 - b. Non-life limiting neurological impairment that does not preclude transplant and not caused by hematologic malignancy (e.g., diabetic peripheral neuropathy)
 - c. Abnormal neurological exam with positive findings including **ONE** of the following:
 - i. Lumbar puncture normal cytology
 - ii. Lumbar puncture with cytological exam abnormal, with central nervous system disease treated prior to clearance
8. A Performance Status that includes **ONE** of the following:
 - a. Karnofsky score 70-100%
 - b. Eastern Cooperative Oncology Group (ECOG) Grade 0-2.
9. Lab studies that include:
 - a. Complete blood count; kidney profile (blood urea nitrogen, creatinine); electrolytes; calcium; phosphorous; albumin; liver function tests; and coagulation profile (prothrombin time, and partial thromboplastin time);*

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- b. Serologic screening for: Human immunodeficiency virus (HIV); Epstein Barr virus; Hepatitis virus B; Hepatitis C; cytomegalovirus; rapid plasma reagin and/or fluorescent treponemal antibody:*
 - i. If HIV positive **ALL** the following must be met:
 - 1. CD4 count >200 cells/mm³ for >6 months
 - 2. Human immunodeficiency virus 1 ribonucleic acid undetectable
 - 3. On stable anti-retroviral therapy >3 months
 - 4. No other complications from AIDS (e.g., opportunistic infection, including aspergillus, tuberculosis, coccidioides mycosis, resistant fungal infections, Kaposi's sarcoma, or other neoplasm).
 - c. Urine drug screen (UDS) if Member has a history of and/or current drug abuse
- 10. Colonoscopy if indicated or if Member is age \geq 45, with complete workup and treatment of abnormal results as indicated; an initial screening colonoscopy after initial negative screening requires a follow-up colonoscopy every 10 years).*
- 11. Gynecological examination with Pap smear for women ages \geq 21 to \leq 65 years of age or if indicated (not indicated in women who have had a total abdominal hysterectomy or a total vaginal hysterectomy) within the last three years with complete workup and treatment of abnormal results as indicated.*
- 12. Dental examination or oral exam showing good dentition and oral care or no abnormality on panorex or plan for treatment of problems pre- or post-transplant within the last 12 months
- 13. Mammogram for women if indicated or > age 40, with complete workup and treatment of abnormal results as indicated;*
- 14. Prostate Specific Antigen for men if history of prostate cancer or previously elevated Prostate Specific Antigen with complete workup and treatment of abnormal results as indicated.*
- 15. The requesting transplant recipient is free of **ALL** the following absolute contraindications:
 - a. Cardiac, pulmonary, and nervous system disease that cannot be corrected and is a prohibitive risk for surgery
 - b. Malignant neoplasm with a high risk for reoccurrence, non-curable malignancy (excluding localized skin cancer)
 - c. Systemic and/or uncontrolled infection
 - d. AIDS (CD4 count < 200cells/mm³)
 - e. Unwilling or unable to follow post-transplant regimen as documented by history of non-compliance and/or inability to adhere to follow through with medication adherence or office follow up
 - f. Chronic illness with one year or less life expectancy
 - g. Limited, irreversible rehabilitation potential
 - h. Active, untreated substance abuse or misuse (including significant and/or daily cannabis use) requires formal substance use disorder evaluation with clear and unambiguous documentation of:
 - i. A reasonable expectation that the member can adequately comply with a complex, post-transplant plan of care
 - ii. The member is free from addiction for at least 6 months
 - i. Inadequate social/family support.
- 16. The requesting transplant recipient is carefully evaluated and potentially treated for any of the following relative contraindications:
 - a. Irreversible lung disease, requires consultation and clearance by a Pulmonologist prior to consideration of transplantation
 - b. Current smoker, requires documentation supporting free from smoking for 6 months or meets transplant center criteria.
 - c. Active peptic ulcer disease
 - d. Active gastroesophageal reflux disease
 - e. Cerebrovascular accident (CVA) with long term impairment that is not amendable to rehabilitation or a patient with CVA/transient ischemic attack within past 6 months
 - f. Obesity with body mass index of >30 kg/m²

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- g. Chronic liver disease such as Hepatitis B/C/D or cirrhosis, requires consultation by a gastroenterologist or hepatologist
- h. Gall bladder disease, requires ultrasound of the gall bladder with treatment prior to transplantation.

* Participating Centers of Excellence may waive these criteria.

Criteria for Transplantation

Hodgkin's Lymphoma (Autologous and Allogeneic Transplantation)

Hematopoietic Autologous Stem Cell Transplantation

Hematopoietic Autologous Stem Cell Transplantation **may be authorized in adults and children** for the treatment of acute Hodgkin's Lymphoma when **ANY** of the following criteria are met:

1. All pre-transplant criteria are met
2. Member has **ONE** of the following:
 - a. First relapse in chemosensitive disease
 - b. Partial remission after radiotherapy for isolated lesions
 - c. Primary refractory disease
3. The requesting transplant recipient is free of **ALL** the absolute contraindications stipulated under the transplant evaluation criteria.
4. The requesting transplant recipient is carefully evaluated and potentially treated for any of the relative contraindications stipulated under the transplant evaluation criteria.

Hematopoietic Allogeneic Stem Cell Transplantation

Hematopoietic Allogeneic Stem Cell Transplantation from a human leukocyte antigen (HLA)-matched donor** or haploidentical related donor # or from cord blood when there are no matched siblings or unrelated donors ^ **may be authorized in adults and children** for the treatment of acute Hodgkin's Lymphoma when **ALL** the following criteria are met:

1. All pre-transplant criteria are met
2. Member has **ONE** of the following:
 - a. Biopsy-proven relapse from primary treatment in less than 12 months
 - b. Biopsy-proven relapse after autologous transplant
 - c. Multiple biopsy-proven relapses.
3. The requesting transplant recipient is free of **ALL** the absolute contraindications stipulated under the transplant evaluation criteria.
4. The requesting transplant recipient is carefully evaluated and potentially treated for any of the relative contraindications stipulated under the transplant evaluation criteria.

** At least six out of eight match of the HLA-A, HLA-B, HLA-C and HLA-DRB1 markers.

Sharing a haplotype; having the same alleles at a set of closely linked genes on one chromosome.

^ At least four out of six match of the HLA-A, HLA-B and HLA-DRB-1 markers.

Non-Hodgkin's Lymphomas (Autologous and Allogeneic Transplantation)

Hematopoietic Autologous Stem Cell Transplantation

Hematopoietic Autologous Stem Cell Transplantation **may be authorized in adults and children** for the treatment of acute non-Hodgkin's lymphoma when **ANY** of the following criteria are met:

1. All pre-transplant criteria are met

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2. Member has **ONE** of the following classifications of lymphoma:
 - a. Diffuse Large B Cell:
 - i. Relapsed
 - ii. Treatment refractory or chemosensitive
 - iii. Double or triple cytogenetic rearrangement (MYC and BCL-2 and/or BCL-6) at diagnosis
 - b. Mantel Cell (partial or complete response following induction chemotherapy OR as consolidation / additional therapy)
 - c. Burkitt's Lymphoma (relapsed disease)
 - d. Follicular Lymphoma as evidenced by **ONE** of the following:
 - i. Histologic transformation to diffuse large B-cell lymphoma with partial or complete response to treatment
 - ii. Consolidative therapy for patient in second or third remission
 - iii. Relapsed or refractory disease
 - e. High Grade as evidenced by **ONE** of the following:
 - i. C-myc rearrangement at diagnosis
 - ii. Primary induction failure
 - iii. First complete remission (CR1)
 - iv. First relapse
 - v. Second complete remission (CR2) or subsequent remission
 - f. Mature T-Cell as evidenced by **ONE** of the following:
 - i. First complete remission (CR1)
 - ii. First relapse
 - g. Peripheral T Cell (partial or complete response following induction chemotherapy OR as consolidation / additional therapy)
 - h. Other High-Risk Lymphomas at diagnosis
3. The requesting transplant recipient is free of **ALL** the absolute contraindications stipulated under the transplant evaluation criteria.
4. The requesting transplant recipient is carefully evaluated and potentially treated for any of the relative contraindications stipulated under the transplant evaluation criteria.

Hematopoietic Allogeneic Stem Cell Transplantation

Hematopoietic Allogeneic Stem Cell Transplantation from a human leukocyte antigen (HLA)-matched donor (e.g., at least six out of eight match of the HLA-A, HLA-B, HLA-C and HLA-DRB1 markers) or from cord blood when there are no matched siblings or unrelated donors (i.e. at least four out of six match of the HLA-A, HLA-B and HLA-DRB1 markers) **may be authorized in adults and children** for the treatment of acute NHL when **ANY** of the following criteria are met:

1. All pre-transplant criteria are met
2. Member has **ONE** of the following classifications of lymphoma:
 - a. Diffuse Large B Cell:
 - i. Chemosensitive relapsed disease
 - ii. Relapsed disease post-autologous transplant.
 - b. Burkitt's Lymphoma (chemosensitive relapsed disease)
 - c. Follicular Lymphoma as evidenced by **ONE** of the following:
 - i. Histologic transformation to diffuse large B-cell lymphoma
 - ii. Consolidative therapy for patient in second or third remission.
 - d. Cutaneous T-cell Lymphoma (mycosis fungoides, Sezary Syndrome) that is **ONE** of the following:
 - i. Refractory
 - ii. Progressive (e.g., Stage IIB, III, or IV).
 - e. Adult T-cell Lymphoma with acute or lymphoma subtype responsive to chemotherapy
 - f. Mantel Cell (in relapse, needing alternative second-line therapy)

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- i. T-Cell Prolymphocytic Leukemia (consolidation therapy)
 - g. Hepatosplenic T Cell Lymphoma (partial or complete response following induction chemotherapy)
 - h. Other High-Risk Lymphomas at diagnosis
3. The requesting transplant recipient is free of **ALL** the absolute contraindications stipulated under the transplant evaluation criteria.
 4. The requesting transplant recipient is carefully evaluated and potentially treated for any of the relative contraindications stipulated under the transplant evaluation criteria.

Continuation of Therapy (Autologous and Allogeneic)

When extension of a previously approved transplant authorization is requested, review using updated clinical information is appropriate.

1. If Molina Healthcare has authorized prior requests for transplantation **ALL** the following information is required for medical review:
 - a. Presence of no absolute contraindication as listed above
 - b. History and physical within the last 12 months
 - c. Kidney profile within the last 12 months
 - d. Cardiac update if history of cardiac disease within two years (≥ 50 years of age)
 - e. Psychosocial evaluation or update within the last 12 months
 - f. Per initial and updated history and physical, any other clinically indicated tests and/or scans as determined by transplant center physician or Molina Medical Director.
2. If authorized prior requests for transplantation were obtained from another insurer, **ALL** the following information is required for medical review:
 - a. Authorization letter/documentation from previous insurer
 - b. Presence of no absolute contraindication as listed above
 - c. History and physical within the last 12 months
 - d. Cardiac update if history of cardiac disease within two years (≥ 50 years of age)
 - e. Psychosocial evaluation or update within the last 12 months
 - f. Per initial and updated history and physical, any other clinically indicated tests and/or scans as determined by transplant center physician or Molina Medical Director.

Limitations and Exclusions (Autologous and Allogeneic)

1. Allogeneic (ablative or non-myeloablative) stem cell transplantation or autologous stem cell transplantation is **NOT considered medically necessary** when the above criteria are not met.
2. Hematopoietic stem cell collection, storage and freezing for a future unplanned transplant is **NOT covered**.
3. Tandem autologous hematopoietic autologous (auto-auto) or allogeneic (allo-allo), also known as sequential stem cell transplantation **are considered experimental, investigational, and unproven** due to limited evidence in the peer reviewed medical literature.

DOCUMENTATION REQUIREMENTS. Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

SUMMARY OF MEDICAL EVIDENCE

The published medical evidence and outcomes for hematopoietic stem cell transplantation for Hodgkin's and Non-Hodgkin's Lymphoma in children and adults in the United States consists of registry data obtained from transplant centers that perform transplantations and is available from the United Network for Organ Sharing (UNOS) database.

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Registry data demonstrates graft survival rates and outcomes for stem cell transplantation based on demographic and clinical information. Most ongoing research centers around the best pairings of HSCT and different chemotherapy regimens.

Liu et al (2023) conducted a systematic review and meta-analysis evaluating the efficacy of autologous hematopoietic stem cell transplantation versus chemotherapy or allogeneic hematopoietic stem cell transplantation for follicular lymphoma. A total of 13 studies were included, seven of which compared auto-HSCT with conventional chemotherapy and the other six compared allo-HSCT with auto-HSCT. After analysis, the authors concluded that auto-HSCT improved overall survival, progression-free survival, and event-free survival compared with conventional chemotherapy without auto-HSCT.

Singh et al. (2022) conducted a meta-analysis analyzing allogeneic HSCT in T-cell lymphoma. A total of 22 studies were analyzed for a total of 888 patients. The patient population was comprised of 40% had peripheral T-cell lymphoma not otherwise specified, 15% had angioimmunoblastic T-cell lymphoma, 21% had anaplastic large cell lymphoma, 5% had cutaneous T-cell lymphoma, and 19% had other histologic subtypes. The results compiled revealed that at two-, three- and five-year post HSCT transplant, overall survival was 57, 54 and 51%, respectively; progression-free survival was 45, 50 and 45%, respectively; non-relapse mortality was 9, 29 and 29%, respectively; relapse rate was 30, 28 and 29%, respectively. Our study shows that allo-HSCT provides durable remission in T cell lymphoma.

Ida et al. (2021) conducted a retrospective cohort study on 74 consecutive patients who underwent autologous (n = 23) or allogeneic (n = 51) HSCT. With a median follow-up of 5.8 years among survivors, the 5-year probability of progression-free survival was 64% after autologous HSCT and 55% after allogeneic HSCT (p = 0.21), with a 5-year cumulative incidence of non-relapse mortality of 0% after autologous HSCT and 9.5% after allogeneic HCT (p = 0.062). The 5-year cumulative incidence of disease progression was similar between autologous and allogeneic HCT (36% vs. 36%, respectively, p = 0.88). Disease progression was the major cause of treatment failure after both types of HSCT leading the authors to conclude that further strategies are needed to reduce the risk of disease progression.

National and Specialty Organizations

The **American Society for Transplantation and Cellular Therapy** published the guideline titled *Indications for Hematopoietic Cell Transplantation and Immune Effector Cell Therapy* (Kanate et al. 2020). This guideline was an update from the 2015 version to include indications for immune effector cell therapy and overhaul the indications based on the latest technology. The guideline, written by a multistakeholder panel of experts, includes information on standard of care both when indication is well defined and supported by evidence, and when current clinical evidence shows therapy is effective but large clinical trials and observational studies are not available. Indications for rare diseases where demonstrated effectiveness exists but large clinical trials and observational studies are not feasible. Guidelines on diseases where preclinical and/or early-phase clinical studies show this therapy to be a promising treatment option, but an overall lack of data is present. Last, indications where this therapy is generally not recommended are addressed. The ASTCT continues to periodically review these guidelines and update them as new evidence becomes available.

The **National Comprehensive Cancer Network (NCCN)** (¹⁻²2023) has published three guidelines – *Hodgkin Lymphoma (v1.2024)*, *B-Cell Lymphomas (v6.2023)*, and *T-Cell Lymphomas (v1.2024)* that lay out explicit treatment guidelines based on disease type and stage.

The **National Marrow Donor Program (NMDP)** has published the following guidance: *Disease-Specific HCT Indications and Outcomes Data; Engraftment; HLA Matching; Patient Eligibility for HCT; Transplant Consultation Timing; and Treatment Before Transplant.* (¹⁻⁶ NMDP date unknown.).

CODING & BILLING INFORMATION

CPT (Current Procedural Terminology) Codes

Code	Description
	Collection Codes
38205	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; allogeneic
38206	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; autologous
38230	Bone marrow harvesting for transplantation; allogeneic

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38232	Bone marrow harvesting for transplantation; autologous
	Cell Processing Services
38207	Transplant preparation of hematopoietic progenitor cells; cryopreservation and storage
38208	Transplant preparation of hematopoietic progenitor cells; thawing of previously frozen harvest, without washing, per donor
38209	Transplant preparation of hematopoietic progenitor cells; thawing of previously frozen harvest, with washing, per donor
38210	Transplant preparation of hematopoietic progenitor cells; specific cell depletion within harvest, T-cell depletion
38211	Transplant preparation of hematopoietic progenitor cells; tumor cell depletion
38212	Transplant preparation of hematopoietic progenitor cells; red blood cell removal
38213	Transplant preparation of hematopoietic progenitor cells; platelet depletion
38214	Transplant preparation of hematopoietic progenitor cells; plasma (volume) depletion
38215	Transplant preparation of hematopoietic progenitor cells; cell concentration in plasma, mononuclear, or buffy coat layer
	Cell Infusion Codes
38240	Hematopoietic progenitor cell (HPC); allogeneic transplantation per donor
38241	Hematopoietic progenitor cell (HPC); autologous transplantation
38242	Allogeneic lymphocyte infusions
38243	Hematopoietic progenitor cell (HPC); HPC boost
	Histocompatibility Codes
86812	HLA typing; A, B, or C (e.g., A10, B7, B27), single antigen
86813	HLA typing; A, B, or C, multiple antigens
86816	HLA typing; DR/DQ, single antigen
86817	HLA typing; DR/DQ, multiple antigens

HCPCS (Healthcare Common Procedure Coding System) Codes

Code	Description
S2140	Cord blood harvesting for transplantation, allogeneic
S2142	Cord blood derived stem-cell transplantation, allogeneic
S2150	Bone marrow or blood-derived stem cells (peripheral or umbilical), allogeneic or autologous, harvesting, transplantation, and related complications; including pheresis and cell preparation/storage; marrow ablative therapy; drugs; supplies; hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services; and the number of days of pre-and post-transplant care in the global definition

CODING DISCLAIMER. Codes listed in this policy are for reference purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement. Listing of a service or device code in this policy does not guarantee coverage. Coverage is determined by the benefit document. Molina adheres to Current Procedural Terminology (CPT®), a registered trademark of the American Medical Association (AMA). All CPT codes and descriptions are copyrighted by the AMA; this information is included for informational purposes only. Providers and facilities are expected to utilize industry standard coding practices for all submissions. When improper billing and coding is not followed, Molina has the right to reject/deny the claim and recover claim payment(s). Due to changing industry practices, Molina reserves the right to revise this policy as needed.

APPROVAL HISTORY

02/14/2024	Policy reviewed, changes to criteria include age for colonoscopy reduced to 45 years, addition of non-life limiting neurological impairment criteria and additional disease processes to criteria, removal of abnormal serology criteria and daily cannabis use section, and addition of substance abuse statement under absolute contraindications. IRO Peer Review on 01/25/24 by a practicing physician board certified in Hematology and Oncology.
02/08/2023	Policy reviewed, no changes to criteria, included section on cannabis use.
02/09/2022	Policy reviewed; updated items from 2016 ISHLT criteria; included marijuana use under absolute contraindications; updated Summary of Medical Evidence and Reference sections.
12/09/2020	Policy reviewed, no changes.
12/10/2019	Policy reviewed; criteria updated for allogenic and autologous stem cell transplants; removed age criteria for both Hodgkin and Non-Hodgkin transplants; added tandem allogenic transplants are I/E; updated guidelines and references; clarified that haploidentical transplants may be medically necessary when there are no matched sibling or unrelated donors for Hodgkin

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	allogeneic transplants only. IRO Peer Review on November 11, 2019, by a practicing physician board certified in Hematology, Oncology.
03/08/2018	Policy reviewed, no changes.
09/19/2017	Policy reviewed, no changes.
09/21/2016	Policy reviewed, criteria updated for allogenic and autologous stem cell transplants; tandem HSCT are considered I/E to treat patients with any stage, grade, or subtype of Hodgkin and NHL Lymphoma. Updated professional guidelines.
06/02/2015	Revised pre-transplantation criteria.
04/24/2013	New policy.

REFERENCES

1. Aster JC, LaCasce AS, Ng AK. Nodular lymphocyte-predominant Hodgkin lymphoma: Clinical manifestations, diagnosis, and staging. Updated September 05, 2023. Accessed January 11, 2024. <http://www.uptodate.com>.
2. Brown JR, Freedman AS. Overview of the pathobiology of the non-Hodgkin lymphomas. Updated March 10, 2023. Accessed January 11, 2024. <http://www.uptodate.com>
3. Centers for Medicare and Medicaid Services (CMS). Medicare coverage database. National coverage determination (NCD) – Stem cell transplantation (110.23). Effective January 27, 2016. Accessed January 11, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
4. Freedman AS, Friedberg JW, Aster JC. Clinical presentation and initial evaluation of non-Hodgkin Lymphoma. Updated May 06, 2022. Accessed January 11, 2024. <http://www.uptodate.com>.
5. Ida H, Inamoto Y, Fukuhara S, et al. Outcomes of hematopoietic cell transplantation for transformed follicular lymphoma. *Hematol Oncol*. 2021 Dec;39(5):650-657. doi: 10.1002/hon.2917. PMID: 34431557.
6. Kanate AS, Majhail NS, Savani BN, et al. Indications for Hematopoietic Cell Transplantation and Immune Effector Cell Therapy: Guidelines from the American Society for Transplantation and Cellular Therapy. *Biol Blood Marrow Transplant*. 2020 Jul;26(7):1247-1256. doi: 10.1016/j.bbmt.2020.03.002. PMID: 32165328.
7. LaCasce AS, Ng AK, Aster JC. Clinical presentation and diagnosis of classic Hodgkin lymphoma in adults. Updated May 19, 2022. Accessed January 11, 2024. <http://www.uptodate.com>.
8. Liu X, Zheng Y, Li H, Wang M, You MJ, Tian C. Efficacy of Autologous Hematopoietic Stem Cell Transplantation versus Chemotherapy or Allogeneic Hematopoietic Stem Cell Transplantation for Follicular Lymphoma: Systematic Review and Meta-Analysis. *Oncology*. 2023;101(12):822-835. doi: 10.1159/000532090. PMID: 37598665.
9. Melaragno JI, Bowman LJ, Park JM, et al. The Clinical Conundrum of Cannabis: Current Practices and Recommendations for Transplant Clinicians: An Opinion of the Immunology/Transplantation PRN of the American College of Clinical Pharmacy. *Transplantation*. 2021 Feb 1;105(2):291-299. doi: 10.1097/TP.0000000000003309. PMID: 32413017.
10. ¹ National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines in oncology: Hodgkin lymphoma (version 1.2024). Published October 12, 2023. Accessed January 15, 2024. www.nccn.org
11. ² National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines in oncology: B-cell lymphomas (version 6.2023). Published October 10, 2023. Accessed January 15, 2024. www.nccn.org
12. ³ National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines in oncology: T-Cell Lymphomas (version 1.2024). Published December 21, 2023. Accessed January 15, 2024. www.nccn.org
13. ¹ NMDP. Disease-specific HCT indications and outcomes data. Bethematch.org. Accessed January 15, 2024.
14. ² NMDP. Engraftment. Bethematch.org. Accessed January 15, 2024.
15. ³ NMDP. HLA matching. Bethematch.org. Accessed January 15, 2024.
16. ⁴ NMDP. Patient eligibility for HCT. Bethematch.org. Accessed January 15, 2024.
17. ⁵ National Marrow Donor Program (NMDP). Transplant consultation timing. Bethematch.org. Accessed January 15, 2024.
18. ⁶ National Marrow Donor Program (NMDP). Treatment before transplant. Bethematch.org. Accessed January 15, 2024.
19. Singh V, Kim S, Deol A, Uberti JP, Modi D. Allogeneic hematopoietic stem cell transplantation in T-cell lymphoma: a Meta-Analysis. *Leuk Lymphoma*. 2022 Apr;63(4):855-864. doi: 10.1080/10428194.2021.1999438. PMID: 34866528.