

# **Medical Policies**



Policy S-272

Number:

**Policy Name:** Hematopoietic Cell Transplantation: Blood Cancers

Policy Type: Medical Policy Surgery

Subtype:

**Effective** 09-15-2025 **End Date:** 11-02-2025

Date:

# Description

Hematopoietic Cell Transplantation (HCT) involves the intravenous (IV) infusion of allogeneic (donor) or autologous stem cells to reestablish hematopoietic function in individuals whose bone marrow or immune system is damaged or defective. They can be harvested from bone marrow, peripheral blood, or umbilical cord blood and placenta shortly after delivery of neonates.

A variety of blood cancers may be treated with either allogeneic or autologous HCT, including but not limited to:

- Amyloidosis:
  - o Primary; or
- Leukemia:
  - Lymphoblastic, acute:
    - Adult; or
    - Pediatric; or
  - o Lymphocytic, chronic; or
  - Myeloid, acute; or
  - Myeloid, chronic; or
- Lymphoma:
  - Hodgkin lymphoma; or
  - Non-Hodgkin lymphoma;
    - B-Cell; or
    - T-Cell: or
  - Small Lymphocytic; or
- Multiple myeloma; or
- Myelodysplastic Syndromes; or
- Myeloproliferative Neoplasms; or
- POEMS syndrome; or
- Waldenström Macroglobulinemia

Donor lymphocyte infusion (DLI), also called donor leukocyte or buffy-coat infusion, is another type of therapy in which T lymphocytes from the blood of a donor are given to an individual who has already received a hematopoietic cell transplant (HCT) from the same donor. The DLI therapeutic effect results from a graft-versus-leukemic or graft-versus-tumor effect due to recognition of certain antigens on the cancer cells by the donor lymphocytes and the resultant elimination of the tumor cells.

# **Policy Application**

All claims submitted for this policy will be processed according to the policy effective date and associated revision effective dates in effect on the date of service.

### Criteria

Acute Lymphoblastic Leukemia (ALL)

Adult ALL

Allogeneic HCT may be considered medically necessary to treat adult ALL when at least **ONE** of the following clinical criteria has been met:

- Individual is in first complete remission for any risk level; or
- Individual is in second or greater remission; or
- Individual has relapsed or refractory ALL; or
- Individual has relapsing ALL after a prior autologous HCT; or
- Individual has failed induction therapy; or
- Individual has B-cell lineage ALL with marrow relapse while on treatment or within six (6) months of completing treatment; **or**
- Individual has T-cell lineage ALL in first or subsequent remission.

A second allogeneic HCT to treat ALL when relapsed disease occurs more than six (6) months after initial allogeneic HCT may be considered medically necessary.

### Note:

High-risk\* for relapse may include but are not limited to:

- Age older than 35 years; or
- Leukocytosis at presentation of:
  - Greater than 30000/L (B-cell lineage); or
  - o Greater than 100000/L (T-cell lineage), or
- 'Poor prognosis' genetic abnormalities like the Philadelphia chromosome (t[9;22]); or
- Extramedullary disease; or
- Time to attain complete remission longer than four (4) weeks.

Allogeneic HCT to treat adult ALL not meeting the criteria as listed in this policy considered not medically necessary.

Autologous HCT to treat adult ALL in first complete remission but at high-risk\* of relapse may be considered medically necessary.

Autologous HCT to treat adult ALL not meeting the criteria as indicated in this policy is considered not medically necessary.

#### Pediatric ALL

Autologous or allogeneic HCT may be considered medically necessary to treat pediatric ALL when at least **ONE** of the following clinical criteria has been met:

- In first complete remission and at high risk of relapse; or
- In second or greater remissions or refractory ALL.

Allogeneic HCT may be considered medically necessary to treat relapsing ALL after a prior autologous HCT in pediatric individuals.

Autologous or allogeneic HCT not meeting the criteria as indicated in this policy is considered not medically necessary.

Reduced-Intensity Conditioning (RIC) for ALL

RIC allogeneic HCT may be considered medically necessary as a treatment for ALL in individuals who are in complete marrow and extramedullary first or second remission, and who, for medical reasons, would be unable to tolerate a standard myeloablative conditioning regimen.

RIC HCT not meeting the criteria as listed in this policy is considered not medically necessary.

Guidelines for Autologous and Allogeneic HCT in ALL

Indication	Children (Age Less than 18 Years)		Adults (Age Greater or e to 18 Years)	qual
Allogeneic HCT	Autologous Allogeneic HCT HCT		Autologous HCT	
First complete response, standard-risk	N	N	S	N
First complete response, high-risk	S	N	S	N
Second complete response	S	N	S	N
At least third complete response	С	N	S	N
Not in remission	С	N	S	N

ALL: acute lymphoblastic leukemia; C: clinical evidence available; HCT: hematopoietic cell transplantation; N: not generally recommended; S: standard of care.

Acute Myeloid Leukemia (AML)

Allogeneic HCT using a myeloablative conditioning regimen may be considered medically necessary to treat **ANY** of the following conditions:

- Poor- to intermediate-risk AML in first complete remission CR1 (see table below); or
- AML that is refractory to standard induction chemotherapy but can be brought into CR with intensified induction therapy; **or**
- AML that relapses following chemotherapy-induced CR1 but can be brought into CR1 or beyond with intensified induction chemotherapy; **or**
- AML in individuals who have relapsed following a prior autologous HCT but can be brought into CR with intensified induction chemotherapy and are medically able to tolerate the procedure.

Allogeneic HCT using a reduced-intensity conditioning regimen may be considered medically necessary as a treatment of AML in individuals who are in complete marrow and extramedullary remission (CR1 and beyond), and who for medical reasons would be unable to tolerate a myeloablative conditioning regimen.

Autologous HCT may be considered medically necessary in individuals who are not candidates for allogenic HCT to treat AML in CR1 or beyond, or relapsed AML, if responsive to intensified induction chemotherapy.

The use of allogeneic or autologous HCT in individuals to treat AML not meeting the criteria as indicated in this policy is considered not medically necessary.

#### Risk status of AML based on Genetic Factors

The newer, currently preferred, World Health Organization classification of AML incorporates and interrelates morphology, cytogenetics, molecular genetics, and immunologic markers. It attempts to construct a classification that is universally applicable and prognostically valid. The World Health Organization system was adapted by National Comprehensive Cancer Network to estimate individual, individual's prognosis to guide management, as shown in the below table.

Risk Status	Genetic Abnormalities
Favorable	t(8;21)(q22;q22.1); RUNX1-RUNX1T1 inv(16)(p13.1q22) or t(16;16) (p13.1;q22); CBFB-MYH11 Biallelic mutated CEBPA Mutated NPM1 without FLT3 -ITD or with FLT3 -ITD low
Intermediate	Mutated NPM1 and FLT3 -ITD <sup>high</sup> Wild-type NPM1 withou t FLT3 -ITD or with FLT3 -ITD <sup>low</sup> (without adverse-risk genetic lesions) t(9;11)(p21.3;q23.3); MLLT3-KMT2A Cytogenetic abnormalities not classified as favorable or adverse
Poor/Adverse	t(6;9)(p23;q34.1); DEK-NUP214 t(v;11q23.3); KMT2A rearranged t(9;22)(q34.1;q11.2); BCR-ABL1 inv(3)(q21.3q26.2) or t(3;3) (q21.3;q26.2); GATA2, MECOM(EVI1) -5 or del(5q); -7; -17/abn (17p) Complex karyotype, monosomal karyotype Wild-type NPM1 and FLT3 -ITD high Mutated RUNX1 (if not co-occurring with favorable-risk AML subtypes) Mutated ASXL1 (if not co-occurring with favorable-risk AML subtypes) Mutated TP53

AML: Acute myeloid leukemia; ITD: Internal tandem duplication

### Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma

Allogeneic HCT may be considered medically necessary to treat individuals with markers of poor-risk disease for **EITHER** of the following conditions:

- CLL; or
- SLL.

Use of a myeloablative or reduced-intensity pre-transplant conditioning regimen should be individualized based on factors that include individual age, the presence of comorbidities, and disease burden.

Allogeneic HCT to treat CLL or SLL not meeting the criteria as indicated in this policy is considered not medically necessary.

### Chronic Myeloid Leukemia(CML)

Allogeneic HCT to treat CML may be considered medically necessary for ANY of the following indications:

- Individual has not reached hematologic remission after three (3) months of tyrosine kinase inhibitor (TKI) therapy; **or**
- Lack of cytogenetic response or those individuals in cytogenetic relapse at six (6), 12, or 18 months after achieving initial hematologic remission after three (3) months of TKI therapy; or
- Individual has not reached molecular remission by 12 months of TKI therapy; or
- Disease progression on TKI therapy has moved to accelerated phase or blast crisis; or
- Individual is not a candidate for TKI therapy.

Allogeneic HCT using a reduced-intensity conditioning (RIC) regimen to treat CML may be considered medically necessary for the following:

- Individual meets clinical criteria for allogenic HCT but are **NOT** considered candidates for a myeloablative conditioning HCT:
  - Clinical criteria that preclude use of a standard myeloablative conditioning regimen may include but are not limited to:
    - Individuals greater than 60 years of age; or
    - Individuals with comorbidities including but not limited to:
      - Liver or kidney dysfunction; or
      - Generalized debilitation; or
      - Prior intensive chemotherapy; or
      - Low Karnofsky performance status.

Allogeneic HCT to treat CML not meeting the criteria as indicated in this policy is considered not medically necessary.

### Hodgkin Lymphoma (HL)

The following HCT treatments may be considered medically necessary for individuals with primary refractory or relapsed HL:

- Autologous HCT; or
- Allogeneic HCT, using either:
  - Myeloablative; or
  - Reduced intensity conditioning regimens.

Tandem autologous HCT may be considered medically necessary:

- In individuals with primary refractory HL; or
- In individuals with relapsed disease with poor risk features who do not attain a complete remission to cytoreductive chemotherapy prior to transplantation.

Autologous or allogeneic HCT to treat Hodgkin lymphoma not meeting the criteria as listed in this policy is considered not medically necessary.

### Lugano Classification Staging System for Hodgkin Lymphoma

The staging system used for Hodgkin lymphoma is the Lugano classification. It has four (4) stages, labeled I, II, III, and IV. For limited stage (I or II) HL that affects an organ outside of the lymph system, the letter E is added to the stage (for example, stage IE or IIE).

Stage	Area of Concern
I	<ul> <li>Involvement of a single lymph node region (I) or localized involvement of a single extralymphatic organ or site (I E).</li> </ul>
II	<ul> <li>Involvement of two or more lymph node regions on the same side of the diaphragm (II) or localized involvement of a single associated extralymphatic organ or site and its regional lymph node(s), with or without involvement of other lymph node regions on the same side of the diaphragm (II E).</li> </ul>
III	<ul> <li>Involvement of lymph node regions on both sides of the diaphragm (III), which may also be accompanied by localized involvement of an associated extralymphatic organ or site (III E), by involvement of the spleen (III S), or by both (III E+S).</li> </ul>
IV	<ul> <li>Disseminated (multifocal) involvement of one or more extralymphatic organs, with or without associated lymph node involvement, or isolated extralymphatic organ involvement with distant (nonregional) nodal involvement.</li> </ul>

Note: The number of lymph node regions involved may be indicated by a subscript(e.g., II 3).

Each stage may also be assigned a letter (A or B). B is added (stage IIIB, for example) if a person has **ANY** of these B symptoms:

- Loss of more than 10% of body weight over the previous six (6) months (without dieting)
- Unexplained fever of at least 100.4F (38C)
- Drenching night sweats

If a person has any B symptoms, it usually means the lymphoma is more advanced, and more intensive

treatment is often recommended. If no B symptoms are present, the letter A is added to the stage.

### PET 5-Point Scale (Deauville Criteria) for Hodgkin Lymphoma

Score		PET/CT Scan Result			
Negative 1 2 3		No uptake			
		Uptake less than or equal to mediastinum			
		Uptake greater than mediastinum but less than or equal to liver			
Positive	4	Uptake moderately higher than liver and visually above adjacent background activity			
	5	Uptake markedly higher than liver and/or new lesions			
	Ха	New areas of uptake unlikely to be related to lymphoma			

<sup>&</sup>lt;sup>a</sup> Watchful waiting, biopsy, or additional imaging tests may be appropriate depending on clinical circumstances. Obtaining a second opinion/overread of the imaging may be beneficial.

### Multiple Myeloma (MM)

A single or second (salvage) autologous HCT may be considered medically necessary to treat MM.

Tandem autologous HCT may be considered medically necessary to treat MM in individuals who fail to achieve at least a near-complete or very good partial response after the first transplant in the tandem sequence.

Tandem transplantation with an initial round of autologous HCT followed by a non-marrow-ablative conditioning regimen and allogeneic HCT (i.e., reduced-intensity conditioning (RIC) transplant) may be considered medically necessary to treat newly diagnosed MM individuals.

Autologous HCT, single or tandem, or allogeneic HCT RIC used to treat MM not meeting the criteria as indicated in this policy is considered not medically necessary.

### Myelodysplastic Syndromes and Myeloproliferative Neoplasms

Myeloablative allogeneic HCT may be considered medically necessary as a treatment of **EITHER** of the following conditions:

- Myelodysplastic syndromes; or
- Myeloproliferative neoplasms.

Reduced-intensity conditioning allogeneic HCT may be considered medically necessary as a risk-adapted treatment in individuals, who for medical reasons would be unable to tolerate a myeloablative conditioning regimen as a treatment of **EITHER** of the following conditions:

• Myelodysplastic syndromes; or

• Myeloproliferative neoplasms.

Myeloablative allogeneic HCT or reduced-intensity conditioning allogeneic HCT for myelodysplastic syndromes and myeloproliferative neoplasms not meeting the criteria as indicated in this policy is considered not medically necessary.

### Non-Hodgkin Lymphoma (NHL)

Aggressive NHL B-cell Subtype

Allogeneic HCT using a myeloablative conditioning regimen or autologous HCT may be considered medically necessary to treat individuals with aggressive NHL B-cell subtypes ( **EXCEPT** mantle cell lymphoma) for **ANY** of the following:

- As salvage therapy for individuals who do not achieve a complete remission (CR) after first-line treatment (induction) with a full course of standard-dose chemotherapy; **or**
- To achieve or consolidate a CR for those in a chemo-sensitive first or subsequent relapse; or
- To consolidate a first CR in individuals with diffuse large B-cell lymphoma, with an age-adjusted International Prognostic Index score that predicts a high- or high-intermediate risk of relapse.

Allogeneic HCT to treat individuals with **aggressive** NHL B-cell subtypes not meeting the criteria as listed in this policy are considered not medically necessary.

Indolent NHL B-cell Subtype

Allogeneic HCT using a myeloablative conditioning regimen or autologous HCT maybe considered medically necessary to treat individuals with indolent NHL B-cell subtypes for **ANY** of the following:

- As salvage therapy for individuals who do not achieve CR after first-line treatment (induction) with a full course of standard-dose chemotherapy; **or**
- To achieve or consolidate CR for individuals in a first or subsequent chemo sensitive relapse, whether or not their lymphoma has undergone transformation to a higher grade.

Allogeneic HCT to treat individuals with **indolent** NHL B-cell subtypes not meeting the criteria as listed in this policy are considered not medically necessary.

Mantle Cell Lymphoma

Autologous HCT may be considered medically necessary to consolidate a first remission of mantle cell lymphoma.

Salvage Therapy for Mantle Cell Lymphoma

• Allogeneic HCT, myeloablative or reduced-intensity conditioning, used as salvage therapy for mantle cell lymphoma may be considered medically necessary.

HCT to treat mantle cell lymphoma not meeting the criteria as indicated in this policy is considered not medically necessary.

Reduced-intensity conditioning (RIC) allogeneic HCT to treat individuals with NHL may be considered medically necessary for those individuals who meet the above criteria for an allogeneic HCT but who do not qualify for a myeloablative allogeneic HCT.

RIC allogeneic HCT not meeting the criteria to treat NHL as indicated in this policy is considered not medically necessary.

#### T-Cell Lymphoma

HCT may be considered medically necessary for individuals with mature T-cell or natural killer cell (peripheral T-cell) neoplasms as follows:

- Autologous HCT may be considered medically necessary to consolidate a first complete remission in highrisk peripheral T-cell lymphoma.
- Autologous or allogeneic HCT (myeloablative or reduced-intensity conditioning) may be considered medically necessary as salvage therapy.

Autologous or allogeneic HCT for treatment of T-cell lymphoma not meeting the criteria as indicated in this policy is considered not medically necessary.

Note: Please see attached table or WHO classification of Non-Hodgkin Lymphomas.

### POEMS Syndrome

Autologous HCT to treat disseminated POEMS Syndrome may be considered medically necessary for individuals who are eligible as **EITHER**:

- Sole therapy; or
- Consolidation after induction therapy.

Autologous HCT to treat disseminated POEMS Syndrome not meeting the criteria as indicated in this policy is considered not medically necessary.

### Primary Systemic Amyloidosis (AL)

Autologous HCT to treat primary systemic AL may be considered medically necessary when **ALL** the following patient selection criteria are met:

- Age greater than 18 years; and
- Tissue diagnosis of amyloidosis by:
  - Abdominal fat aspirate; or
  - Biopsy of involved organ; and
- Eastern Cooperative Oncology Group (ECOG) performance status score of zero to two (0-2); and
- New York Heart Association class I/II and no more than two involved major organs (liver, heart, kidney , autonomic nerve); and
- Supine systolic blood pressure greaterthan90 mm/Hg; and
- Asymptomatic or compensated cardiac function including but not limited to:
  - Absence of congestive heart failure; and
  - Echocardiographic left ejection fraction greater than 40%; and
  - o Cardiac interventricular septal thickness is greater than 12 mm; and
- Renal function with a creatinine clearance of at least 30 ml/min.

Note: When available, a clinical trial should be utilized.

Autologous HCT to treat primary systemic AL not meeting the criteria as indicated in this policy is considered not medically necessary.

### Waldenstrom Macroglobulinemia (WM)

Autologous HCT to treat previously treated WM may be considered medically necessary.

Autologous HCT not meeting the criteria as indicated in this policy is considered not medically necessary.

Allogeneic HCT, either ablative or non-ablative, to treat previously treated WM may be considered medically necessary.

Allogeneic HCT to treat previously treated WM not meeting the criteria as indicated in this policy is considered not medically necessary.

### Experimental/Investigational

The following conditions for autologous HCT or allogeneic HCT to treat individuals for blood cancers are considered experimental/investigational and therefore, non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature:

- Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (CLL/SLL):
  - Autologous HCT; or
- Chronic Myeloid Leukemia (CML):
  - Autologous HCT; or
- Hodgkin Lymphoma:
  - o Initial therapy for newly diagnosed disease; or
  - To consolidate a first complete remission; or
  - Second autologous HCT for relapsed HL after a prior autologous HCT.
- Multiple Myeloma (MM):
  - Allogeneic HCT, myeloablative or nonmyeloablative
    - Initial therapy of newly diagnosed MM; or
    - Salvage therapy; or
- Mantle Cell Lymphoma:
  - Autologous HCT used as salvage therapy; or
  - o Allogeneic HCT to consolidate a first remission of mantle cell lymphoma; or
- Non-Hodgkins Lymphoma (NHL):
  - Initial therapy for any NHL; **or**
  - To consolidate a first CR for individuals with diffuse large B-cell lymphoma and an International Prognostic Index score that predicts a low- or low-intermediate risk of relapse; **or**
  - To consolidate a first CR for individuals with indolent NHL B-cell subtypes; or
  - o Tandem HCT to treat individuals with any stage, grade, or subtype of NHL; or
- POEMS Syndrome:
  - Allogeneic and tandem HCT; or
- Primary Systemic Amyloidosis (AL):
  - Allogeneic HCT; or
- T-Cell Lymphoma:
  - Allogeneic HCT to consolidate a first remission.

### Allogeneic HCTProcedure Codes

38205	38230	38240	38242	S2140	S2142	S2150

### **Autologous HCTProcedure Codes**

38206	38232	38241	S2150
-------	-------	-------	-------

### **Donor Leukocyte Infusion**

DLI may be considered medically necessary for adults and children following allogeneic HCT that was originally considered medically necessary for the treatment of a hematologic malignancy that has relapsed, or does not respond, to prevent relapse in the setting of a high risk of relapse, or to convert a patient from mixed to full donor chimerism with **ANY** of the following conditions:

- Individuals with acute myeloid leukemia (AML); or
- Individuals with chronic myeloid leukemia (CML); or
- Individuals with Hodgkin's disease (HD); or
- Individuals with acute lymphocytic leukemia (ALL); or
- Individuals with multiple myeloma (MM).

DLI not meeting the criteria as indicated in this policy is considered experimental/investigational and therefore non-covered because the safety and/or effectiveness of this services cannot be established by the available published peer-reviewed literature.

Charges for the leukapheresis procedure for the donor are eligible for payment when the donor leukocyte infusion is covered. Payment for eligible donor leukapheresis procedures may be equated to therapeutic apheresis for white blood cells.

### Experimental/Investigational

The following procedures concerning DLI are considered experimental/investigational and therefore non-covered because the safety and/or effectiveness of this service cannot be established by the available published peer-reviewed literature:

- Genetic or other modification of donor leukocytes
- Following allogeneic HCT that was originally considered investigational for the treatment of a hematologic malignancy; **or**
- Treatment of non-hematologic malignancies following a prior allogeneic HCT; or
- Other applications of DLI including but not limited to:
  - o Myelodysplastic syndromes; or
  - o Non-Hodgkin's lymphoma; or
  - Autism spectrum disorder.
  - o Individuals with:
    - Myelodysplastic syndromes; or
    - Non-Hodgkin's lymphoma; or
    - Autism spectrum disorder.

### **Procedure Codes**

36511 38242

## **Professional Statements and Societal Positions Guidelines**

National Comprehensive Cancer Network - 2022

# **Diagnosis Codes**

### Acute Lymphoblastic Leukemia

# Covered Diagnosis Codes for Procedure Codes:38205, 38206, 38230, 38232, 38240, 38241, S2140, S2142

601.00	601.01	CO1 03
C91.00	C91.01	C91.02

### Acute Myeloid Leukemia

# Covered Diagnosis Codes for Procedure Codes: 38205, 38206, 38230, 38232, 38240, 38241, S2140, S2142, and S2150

C92.00	C92.01	C92.02	C92.40	C92.41	C92.42	C92.50
C92.51	C92.52	C92.60	C92.61	C92.62	C92.A0	C92.A1
C92.A2	C93.00	C93.01	C93.02	C94.00	C94.01	C94.02
C94.20	C94.21	C94.22				

### Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

Covered Diagnosis Codes for Procedure Codes: 38205, 38240, S2140, and S2142

C91.10	C91.11
--------	--------

# Chronic Myeloid Leukemia

# Covered Diagnosis Codes for Procedure Codes: 38205, 38220, 38221, 38222, 38230, 38240, S2140 and S2142

C92.10	C92.10	C92.12	C92.20	C92.22	
--------	--------	--------	--------	--------	--

## **Hodgkin Lymphoma**

# Covered Diagnosis Codes for Procedure Codes: 38205, 38206, 38230, 38232, 38240, 38241, S2140, S2142, and S2150

C81.00	C81.01	C81.02	C81.03	C81.04	C81.05	C81.06
C81.07	C81.08	C81.09	C81.10	C81.11	C81.12	C81.13

C81.14	C81.15	C81.16	C81.17	C81.18	C81.19	C81.20
C81.21	C81.22	C81.23	C81.24	C81.25	C81.26	C81.27
C81.28	C81.29	C81.30	C81.31	C81.32	C81.33	C81.34
C81.35	C81.36	C81.37	C81.38	C81.39	C81.40	C81.41
C81.42	C81.43	C81.44	C81.45	C81.46	C81.47	C81.48
C81.49	C81.70	C81.71	C81.72	C81.73	C81.74	C81.75
C81.76	C81.77	C81.78	C81.79	C81.90	C81.91	C81.92
C81.93	C81.94	C81.95	C81.96	C81.97	C81.98	C81.99

### Multiple Myeloma

Covered Diagnosis Codes for Procedure Codes: 38206, 38232, 38241, and S2150

C90.00	C90.02
--------	--------

### Myelodysplastic Syndromes and Myeloproliferative Neoplasms

# Covered Diagnosis Codes for Procedure Codes: 38205, 38230, 38240, S2140, S2142, and S2150

C94.40	C94.41	C94.42	C94.6	D46.0	D46.1	D46.20
D46.21	D46.22	D46.4	D46.9	D46.A	D46.B	D46.C
D46.Z	D47.1	D47.Z9				

# Non-Hodgkin Lymphoma

# Covered Diagnosis Coeds for Procedure Codes:38205, 38206, 38230, 38232, 38240, 38241, S2140, S2142, and S2150

C82.00	C82.01	C82.02	C82.03	C82.04	C82.05	C82.06
C82.07	C82.08	C82.09	C82.10	C82.11	C82.12	C82.13
C82.14	C82.15	C82.16	C82.17	C82.18	C82.19	C82.20
C82.21	C82.22	C82.23	C82.24	C82.25	C82.26	C82.27

C82.28	C82.29	C82.30	C82.31	C82.32	C82.33	C82.34
C82.35	C82.36	C82.37	C82.38	C82.39	C82.40	C82.41
C82.42	C82.43	C82.44	C82.45	C82.46	C82.47	C82.48
C82.49	C82.50	C82.51	C82.52	C82.53	C82.54	C82.55
C82.56	C82.57	C82.58	C82.59	C82.60	C82.61	C82.62
C82.63	C82.64	C82.65	C82.66	C82.67	C82.68	C82.69
C82.80	C82.81	C82.82	C82.83	C82.84	C82.85	C82.86
C82.87	C82.88	C82.89	C82.90	C82.91	C82.92	C82.93
C82.94	C82.95	C82.96	C82.97	C82.98	C82.99	C83.00
C83.01	C83.02	C83.03	C83.04	C83.05	C83.06	C83.07
C83.08	C83.09	C83.10	C83.11	C83.12	C83.13	C83.14
C83.15	C83.16	C83.17	C83.18	C83.19	C83.30	C83.31
C83.32	C83.33	C83.34	C83.35	C83.36	C83.37	C83.38
C83.39	C83.50	C83.51	C83.52	C83.53	C83.54	C83.55
C83.56	C83.57	C83.58	C83.59	C83.70	C83.71	C83.72
C83.73	C83.74	C83.75	C83.76	C83.77	C83.78	C83.79
C83.80	C83.81	C83.82	C83.83	C83.84	C83.85	C83.86
C83.87	C83.88	C83.89	C83.90	C83.91	C83.92	C83.93
C83.94	C83.95	C83.96	C83.97	C83.98	C83.99	C84.40
C84.41	C84.42	C84.43	C84.44	C84.45	C84.46	C84.47
C84.48	C84.49	C84.60	C84.61	C84.62	C84.63	C84.64
C84.65	C84.66	C84.67	C84.68	C84.69	C84.70	C84.71
C84.72	C84.73	C84.74	C84.75	C84.76	C84.77	C84.78
C84.79	C84.90	C84.91	C84.92	C84.93	C84.94	C84.95

C84.96	C84.97	C84.98	C84.99	C84.A0	C84.A1	C84.A2
C84.A3	C84.A4	C84.A5	C84.A6	C84.A7	C84.A8	C84.A9
C84.Z0	C84.Z1	C84.Z2	C84.Z3	C84.Z4	C84.Z5	C84.Z6
C84.Z7	C84.Z8	C84.Z9	C85.10	C85.11	C85.12	C85.13
C85.14	C85.15	C85.16	C85.17	C85.18	C85.19	C85.20
C85.21	C85.22	C85.23	C85.24	C85.25	C85.26	C85.27
C85.28	C85.29	C85.80	C85.81	C85.82	C85.83	C85.84
C85.85	C85.86	C85.87	C85.88	C85.89	C85.90	C85.91
C85.92	C85.93	C85.94	C85.95	C85.96	C85.97	C85.98
C85.99	C88.80	C88.81				

### **POEMS**

Covered Diagnosis Codes for Procedure Codes: 38206, 38232, 38241, and S2150

D47.Z9

# **Primary Systemic Amyloidosis**

Covered Diagnosis Codes for Procedure Codes: 38206, 38232, 38241, S2150

E85.81

# Waldenström Macroglobulinemia Covered Diagnosis Code for Procedure Codes:

C88.00	C88.01

# **Donor Leukocyte Infusion**

# Covered Diagnosis Codes for Procedure Code: 38242

C81.00	C81.01	C81.02	C81.03	C81.04	C81.05	C81.06
C81.07	C81.08	C81.09	C81.10	C81.11	C81.12	C81.13
C81.14	C81.15	C81.16	C81.17	C81.18	C81.19	C81.20
C81.21	C81.22	C81.23	C81.24	C81.25	C81.26	C81.27

C81.28	C81.29	C81.30	C81.31	C81.32	C81.33	C81.34
C81.35	C81.36	C81.37	C81.38	C81.39	C81.40	C81.41
C81.42	C81.43	C81.44	C81.45	C81.46	C81.47	C81.48
C81.49	C81.70	C81.71	C81.72	C81.73	C81.74	C81.75
C81.76	C81.77	C81.78	C81.79	C81.90	C81.91	C81.92
C81.93	C81.94	C81.95	C81.96	C81.97	C81.98	C81.99
C90.00	C90.01	C90.02	C91.00	C91.01	C91.02	C91.10
C91.11	C91.12	C91.30	C91.31	C91.32	C91.50	C91.51
C91.52	C91.60	C91.61	C91.62	C91.90	C91.91	C91.92
C91.A0	C91.A1	C91.A2	C91.Z0	C91.Z1	C91.Z2	C92.00
C92.01	C92.02	C92.10	C92.11	C92.12	C92.20	C92.21
C92.22	C92.30	C92.31	C92.32	C92.40	C92.41	C92.42
C92.50	C92.51	C92.52	C92.60	C92.61	C92.62	C92.90
C92.91	C92.92	C92.A0	C92.A1	C92.A2	C92.Z0	C92.Z1
C92.Z2						

# Non-Covered Diagnosis Codes for Procedure Code: 38242

C82.00	C82.01	C82.02	C82.03	C82.04	C82.05	C82.06
C82.07	C82.08	C82.09	C82.10	C82.11	C82.12	C82.13
C82.14	C82.15	C82.16	C82.17	C82.18	C82.19	C82.20
C82.21	C82.22	C82.23	C82.24	C82.25	C82.26	C82.27
C82.28	C82.29	C82.30	C82.31	C82.32	C82.33	C82.34
C82.35	C82.36	C82.37	C82.38	C82.39	C82.40	C82.41
C82.42	C82.43	C82.44	C82.45	C82.46	C82.47	C82.48
C82.49	C82.50	C82.51	C82.52	C82.53	C82.54	C82.55

C82.56         C82.57         C82.58         C82.59         C82.60         C82.61         C82.62           C82.63         C62.64         C62.65         C62.66         C82.67         C82.68         C62.69           C82.80         C62.81         C62.82         C62.83         C82.84         C82.85         C62.86           C82.87         C62.88         C62.89         C62.90         C82.91         C82.92         C62.93           C82.94         C82.95         C82.96         C82.97         C82.98         C82.99         C83.00           C83.01         C63.02         C63.03         C63.04         C63.05         C83.06         C63.07           C83.08         C63.09         C63.10         C63.11         C63.12         C63.13         C63.14           C63.08         C63.09         C63.11         C63.11         C63.12         C63.13         C63.14           C63.15         C63.16         C63.17         C63.18         C63.19         C63.30         C63.31           C63.32         C63.33         C63.34         C63.35         C63.36         C63.37         C63.37         C63.38         C63.36         C63.37         C63.38         C63.55         C63.59         C63.70         C63.							
C82.80         C82.81         C82.82         C82.83         C82.84         C82.85         C82.86           C82.87         C82.88         C82.89         C82.90         C82.91         C82.92         C82.93           C82.94         C82.95         C82.96         C82.97         C82.98         C82.99         C83.00           C83.01         C83.02         C83.03         C83.04         C83.05         C83.06         C83.07           C83.08         C83.09         C83.10         C83.11         C83.12         C83.13         C83.14           C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98<	C82.56	C82.57	C82.58	C82.59	C82.60	C82.61	C82.62
C82.87         C82.88         C82.89         C82.90         C82.91         C82.92         C82.93           C82.94         C82.95         C82.96         C82.97         C82.98         C82.99         C83.00           C83.01         C83.02         C83.03         C83.04         C83.05         C83.06         C83.07           C83.08         C83.09         C83.10         C83.11         C83.12         C83.13         C83.14           C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98<	C82.63	C82.64	C82.65	C82.66	C82.67	C82.68	C82.69
C82.94         C82.95         C82.96         C82.97         C82.98         C82.99         C83.00           C83.01         C83.02         C83.03         C83.04         C83.05         C83.06         C83.07           C83.08         C83.09         C83.10         C83.11         C83.12         C83.13         C83.14           C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.80         C83.74         C83.75         C83.83         C83.87           C83.78         C83.87         C83.88         C83.89         C83.90         C83.91           C83.99         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45	C82.80	C82.81	C82.82	C82.83	C82.84	C82.85	C82.86
C83.01         C83.02         C83.03         C83.04         C83.05         C83.06         C83.07           C83.08         C83.09         C83.10         C83.11         C83.12         C83.13         C83.14           C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45<	C82.87	C82.88	C82.89	C82.90	C82.91	C82.92	C82.93
C83.08         C83.09         C83.10         C83.11         C83.12         C83.13         C83.14           C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69<	C82.94	C82.95	C82.96	C82.97	C82.98	C82.99	C83.00
C83.15         C83.16         C83.17         C83.18         C83.19         C83.30         C83.31           C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76<	C83.01	C83.02	C83.03	C83.04	C83.05	C83.06	C83.07
C83.32         C83.33         C83.34         C83.35         C83.36         C83.37         C83.38           C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.63         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.77         C84.78         C84.79         C84.90         C84.91         C84.92         C84.93<	C83.08	C83.09	C83.10	C83.11	C83.12	C83.13	C83.14
C83.39         C83.390         C83.398         C83.50         C83.51         C83.52         C83.53           C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.94         C84.95         C84.96         C84.97         C84.98         C84.99         C84.A0<	C83.15	C83.16	C83.17	C83.18	C83.19	C83.30	C83.31
C83.54         C83.55         C83.56         C83.57         C83.58         C83.59         C83.70           C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.94         C84.95         C84.90         C84.91         C84.92         C84.93           C84.94         C84.95         C84.96         C84.97         C84.98         C84.99         C84.A0	C83.32	C83.33	C83.34	C83.35	C83.36	C83.37	C83.38
C83.71         C83.72         C83.73         C83.74         C83.75         C83.76         C83.77           C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.77         C84.78         C84.79         C84.90         C84.91         C84.92         C84.93           C84.94         C84.95         C84.96         C84.97         C84.98         C84.99         C84.A0           C84.A1         C84.A2         C84.A3         C84.A4         C84.A5         C84.A6         C84.A7 <td>C83.39</td> <td>C83.390</td> <td>C83.398</td> <td>C83.50</td> <td>C83.51</td> <td>C83.52</td> <td>C83.53</td>	C83.39	C83.390	C83.398	C83.50	C83.51	C83.52	C83.53
C83.78         C83.79         C83.80         C83.81         C83.82         C83.83         C83.84           C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.77         C84.78         C84.79         C84.90         C84.91         C84.92         C84.93           C84.94         C84.95         C84.96         C84.97         C84.98         C84.99         C84.A0           C84.A1         C84.A2         C84.A3         C84.A4         C84.A5         C84.A6         C84.A7           C84.A8         C84.A9         C84.Z0         C84.Z1         C84.Z2         C84.Z3         C84.Z4 <td>C83.54</td> <td>C83.55</td> <td>C83.56</td> <td>C83.57</td> <td>C83.58</td> <td>C83.59</td> <td>C83.70</td>	C83.54	C83.55	C83.56	C83.57	C83.58	C83.59	C83.70
C83.85         C83.86         C83.87         C83.88         C83.89         C83.90         C83.91           C83.92         C83.93         C83.94         C83.95         C83.96         C83.97         C83.98           C83.99         C84.40         C84.41         C84.42         C84.43         C84.44         C84.45           C84.46         C84.47         C84.48         C84.49         C84.60         C84.61         C84.62           C84.63         C84.64         C84.65         C84.66         C84.67         C84.68         C84.69           C84.70         C84.71         C84.72         C84.73         C84.74         C84.75         C84.76           C84.77         C84.78         C84.79         C84.90         C84.91         C84.92         C84.93           C84.94         C84.95         C84.96         C84.97         C84.98         C84.99         C84.A0           C84.A1         C84.A2         C84.A3         C84.A4         C84.A5         C84.A6         C84.A7           C84.A8         C84.A9         C84.Z0         C84.Z1         C84.Z2         C84.Z3         C84.Z4	C83.71	C83.72	C83.73	C83.74	C83.75	C83.76	C83.77
C83.92       C83.93       C83.94       C83.95       C83.96       C83.97       C83.98         C83.99       C84.40       C84.41       C84.42       C84.43       C84.44       C84.45         C84.46       C84.47       C84.48       C84.49       C84.60       C84.61       C84.62         C84.63       C84.64       C84.65       C84.66       C84.67       C84.68       C84.69         C84.70       C84.71       C84.72       C84.73       C84.74       C84.75       C84.76         C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C83.78	C83.79	C83.80	C83.81	C83.82	C83.83	C83.84
C83.99       C84.40       C84.41       C84.42       C84.43       C84.44       C84.45         C84.46       C84.47       C84.48       C84.49       C84.60       C84.61       C84.62         C84.63       C84.64       C84.65       C84.66       C84.67       C84.68       C84.69         C84.70       C84.71       C84.72       C84.73       C84.74       C84.75       C84.76         C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C83.85	C83.86	C83.87	C83.88	C83.89	C83.90	C83.91
C84.46       C84.47       C84.48       C84.49       C84.60       C84.61       C84.62         C84.63       C84.64       C84.65       C84.66       C84.67       C84.68       C84.69         C84.70       C84.71       C84.72       C84.73       C84.74       C84.75       C84.76         C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C83.92	C83.93	C83.94	C83.95	C83.96	C83.97	C83.98
C84.63       C84.64       C84.65       C84.66       C84.67       C84.68       C84.69         C84.70       C84.71       C84.72       C84.73       C84.74       C84.75       C84.76         C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C83.99	C84.40	C84.41	C84.42	C84.43	C84.44	C84.45
C84.70       C84.71       C84.72       C84.73       C84.74       C84.75       C84.76         C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C84.46	C84.47	C84.48	C84.49	C84.60	C84.61	C84.62
C84.77       C84.78       C84.79       C84.90       C84.91       C84.92       C84.93         C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C84.63	C84.64	C84.65	C84.66	C84.67	C84.68	C84.69
C84.94       C84.95       C84.96       C84.97       C84.98       C84.99       C84.A0         C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C84.70	C84.71	C84.72	C84.73	C84.74	C84.75	C84.76
C84.A1       C84.A2       C84.A3       C84.A4       C84.A5       C84.A6       C84.A7         C84.A8       C84.A9       C84.Z0       C84.Z1       C84.Z2       C84.Z3       C84.Z4	C84.77	C84.78	C84.79	C84.90	C84.91	C84.92	C84.93
C84.A8 C84.A9 C84.Z0 C84.Z1 C84.Z2 C84.Z3 C84.Z4	C84.94	C84.95	C84.96	C84.97	C84.98	C84.99	C84.A0
	C84.A1	C84.A2	C84.A3	C84.A4	C84.A5	C84.A6	C84.A7
C84.Z5 C84.Z6 C84.Z7 C84.Z8 C84.Z9 C85.10 C85.11	C84.A8	C84.A9	C84.Z0	C84.Z1	C84.Z2	C84.Z3	C84.Z4
	C84.Z5	C84.Z6	C84.Z7	C84.Z8	C84.Z9	C85.10	C85.11

C85.12	C85.13	C85.14	C85.15	C85.16	C85.17	C85.18
C85.19	C85.20	C85.21	C85.22	C85.23	C85.24	C85.25
C85.26	C85.27	C85.28	C85.29	C85.80	C85.81	C85.82
C85.83	C85.84	C85.85	C85.86	C85.87	C85.88	C85.89
C85.90	C85.91	C85.92	C85.93	C85.94	C85.95	C85.96
C85.97	C85.98	C85.99	C86.00	C86.01	C86.10	C86.11
C86.20	C86.21	C86.30	C86.31	C86.40	C86.41	C86.50
C86.51	C86.60	C86.61	C88.40	C88.41	D46.0	D46.1
D46.20	D46.21	D46.22	D46.4	D46.9	D46.A	D46.B
D46.C	D46.Z	F84.0	F84.3	F84.5	F84.8	F84.9

## **CURRENT CODING**

### CPT:

36511	THERAPEUTIC APHERESIS WHITE BLOOD CELLS	Medicaid Expansion
38205	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ ALGNC	Medicaid Expansion
38206	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ AUTOL	Medicaid Expansion
38230	BONE MARROW HARVEST TRANSPLANTATION ALLOGENEIC	Medicaid Expansion
38232	BONE MARROW HARVEST TRANSPLANTATION AUTOLOGOUS	Medicaid Expansion
38240	TRNSPLJ ALLOGENEIC HEMATOPOIETIC CELLS PER DONOR	Medicaid Expansion
38241	TRNSPLJ AUTOLOGOUS HEMATOPOIETIC CELLS PER DONOR	Medicaid Expansion
38242	ALLOGENEIC LYMPHOCYTE INFUSIONS	Medicaid Expansion
36511	THERAPEUTIC APHERESIS WHITE BLOOD CELLS	Commercial

38205	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ ALGNC	Commercial
38206	BLD-DRV HEMATOP PROGEN CELL HRVG TRNSPLJ AUTOL	Commercial
38230	BONE MARROW HARVEST TRANSPLANTATION ALLOGENEIC	Commercial
38232	BONE MARROW HARVEST TRANSPLANTATION AUTOLOGOUS	Commercial
38240	TRNSPLJ ALLOGENEIC HEMATOPOIETIC CELLS PER DONOR	Commercial
38241	TRNSPLJ AUTOLOGOUS HEMATOPOIETIC CELLS PER DONOR	Commercial
38242	ALLOGENEIC LYMPHOCYTE INFUSIONS	Commercial

#### **HCPCS**:

S2140	Cord blood harvesting	Medicaid Expansion
S2142	Cord blood-derived stem-cell	Medicaid Expansion
S2150	Bmt harv/transpl 28d pkg	Medicaid Expansion
S2140	Cord blood harvesting	Commercial
S2142	Cord blood-derived stem-cell	Commercial
S2150	Bmt harv/transpl 28d pkg	Commercial

# References

# S-272

# Acute Myeloid Leukemia

- 1. InterQual® Level of Care Criteria 2021, Acute Care Adult, McKesson Health Solutions, LLC
- 2. Buckley SA, Wood BL, Othus M, et al. Minimal residual disease prior to allogeneic hematopoietic cell transplantation in acute myeloid leukemia: A meta-analysis. *Haematol.* 2017;102(5):865–873.
- 3. Heidrich K, Thiede C, Schafer-Eckart K, et al. Allogeneic hematopoietic cell transplantation in intermediate risk acute myeloid leukemia negative for FLT3- ITD, NPM1- or biallelic CEBPA mutations. *Ann Oncol*. 2017;28(11):2793- 2798.
- 4. Frazer J, Couban S, Doucette S, et al. Characteristics predicting outcomes of allogeneic stem-cell transplantation in relapsed acute myelogenous leukemia. *Curr Oncol*. 2017;24(2):e123-e130.
- 5. Miyamoto T, Nagafuji K, Fujisaki T, et al. Prospective randomization of post- remission therapy comparing autologous peripheral blood stem cell transplantation versus high-dose cytarabine consolidation for acute myelogenous leukemia in first remission. *Int J Hematol.* 2018;107(4):468-477.
- 6. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Acute myeloid leukemia. Version 1.2022.

- 7. Blum WG, Mims AS. Treating acute myeloid leukemia in the modern era: A primer. *Cancer*. 2020;126(21):4668-4677.
- 8. Koenig K, Mims A, Levis MJ, Horowitz MM. The changing landscape of treatment in acute myeloid leukemia. *Am Soc Clin Oncol Educ Book*. 2020;40:1-12.
- 9. Dholaria B, Savani BN, Hamilton BK, et al. Hematopoietic cell transplantation in the treatment of newly diagnosed adult acute myeloid leukemia: An evidence-based review from the American Society of Transplantation and Cellular Therapy. *Biol Blood Marrow Transplant*. 2021;27:6-20.
- 10. Kawashima N, Ishikawa Y, Atsuta Y, et al. Allogeneic hematopoietic stem cell transplantation at the first remission for younger adults with FLT3-internal tandem duplication AML: The JALSG AML209-FLT3-SCT study. *Cancer Science*. 2020;111(7):2472-2481.
- 11. Hu G-H, Cheng Y-F, Lu A-D, et al. Allogeneic hematopoietic stem cell transplantation can improve the prognosis of high-risk pediatric t(8;21) acute myeloid leukemia in first remission based on MRD-guided treatment. *BMC Cancer*. 2020;20(1):553.
- 12. Hunter BD, Chen Y-B. Current Approaches to Transplantation for FLT3-ITD AML. *Current Hematol Malign Rep.* 2020;15(1):1-8.
- 13. Song Y, Yin Z, Ding J, Wu T. Reduced intensity conditioning followed by allogeneic hematopoietic stem cell transplantation is a good choice for acute myeloid leukemia and myelodysplastic syndrome: A meta-analysis of randomized controlled trials. *Front Oncol.* 2021;11:708727.
- 14. Scott BL, Pasquini MC, Fei M, et al. Myeloablative versus reduced-intensity conditioning for hematopoietic cell transplantation in acute myelogenous leukemia and myelodysplastic syndromes-long-term follow-up of the BMT CTN 0901 clinical trial. *Transplant Cell Ther*. 2021;27(6):483.e1-483.e6.
- 15. Bejanyan N, Zhang M, Bo-Subait K, et al. Myeloablative conditioning for allogeneic transplantation results in superior disease-free survival for acute myelogenous leukemia and myelodysplastic syndromes with low/intermediate but not high disease risk index: A Center for International Blood and Marrow Transplant Research study. *Transplant Cell Ther*. 2021;27(1):68.e1-68.e9.

## Multiple Myeloma/POEMS Syndrome

- 1. Garderet L, Cook G, Auner HW, et al. Treatment options for relapse after autograft in multiple myeloma report from an EBMT educational meeting. *Leuk Lymphoma*. 2017;58(4):797-808.
- 2. Autore F, Innocenti I, Luigetti M, et al. Autologous peripheral blood stem cell transplantation and the role of lenalidomide in patients affected by poems syndrome. *Hematol Oncol.* 2018;36(2):392-398.
- 3. Cook G, Iacobelli S, van Biezen A, et al. High-dose therapy and autologous stem cell transplantation in patients with POEMS syndrome: a retrospective study of the Plasma Cell Disorder sub-committee of the Chronic Malignancy Working Party of the European Society for Blood & Marrow Transplantation. *Haematol.* 2017;102(1):160-167.
- 4. Maffini E, Storer BE, Sandmaier BM, et al. Long-term follow-up of tandem autologous-allogeneic hematopoietic cell transplantation for multiple myeloma. *Haematol*. 2019;104(2):380-391.
- 5. Ziogas DC, Terpos E, Dimopoulos MA. When to recommend a second autograft in patients with relapsed myeloma? *Leuk Lymphoma*. 2017;58(4):781-787.
- 6. Schneidawind C, Duerr-Stoerzer S, Faul C, et al. Follow-up of patients with refractory or relapsed multiple myeloma after allogeneic hematopoietic cell transplantation. *Clin Transplant*. 2017;31(7).
- 7. Marini C, Maia T, Bergantim R, et al. Real-life data on safety and efficacy of autologous stem cell transplantation in elderly patients with multiple myeloma. *Ann Hematol.* 2019;98(2):369-379.
- 8. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Multiple myeloma. Version 5.2022
- 9. Rajkumar SV, Kumar S. Multiple myeloma current treatment algorithms. *Blood Cancer J.* 2020;10(9):94.
- 10. Rajkumar SV. Multiple myeloma: 2020 update on diagnosis, risk-stratification and management. *Am J Hematol*. 2020;95(5): 48-567.

- 11. Cavo M, Gay F, Beksac M, et al. Autologous haematopoietic stem-cell transplantation versus bortezomib-melphalan-prednisone, with or without bortezomib-lenalidomide-dexamethasone consolidation therapy, and lenalidomide maintenance for newly diagnosed multiple myeloma (EMN02/HO95): A multicentre, randomised, open-label, phase 3 study. *Lancet Haematol*. 2020;7(6): e456-e468.
- 12. Attal M, Lauwers-Cances V, Hulin C, et al. Lenalidomide, bortezomib, and dexamethasone with transplantation for myeloma. *N Engl J Med*. 2017;376(14):1311-1320.
- 13. Mian H, Mian OS, Rochwerg B, et al. Autologous stem cell transplant in older patients (age greater than or equal to 65) with newly diagnosed multiple myeloma: A systematic review and meta-analysis. *J Geriatr Oncol*. 2020;11(1):93-99.
- 14. Stadtmauer EA, Pasquini MC, Blackwell B, et al. Autologous transplantation, consolidation, and maintenance therapy in multiple myeloma: Results of the BMT CTN 0702 trial. *J Clin Oncol*. 2019;37(7):589-597.
- 15. Goldschmidt H, Baertsch MA, Schlenzka J, et al. Salvage autologous transplant and lenalidomide maintenance vs. lenalidomide/dexamethasone for relapsed multiple myeloma: The randomized GMMG phase III trial ReLApsE. *Leukemia*. 2021;35(4):1134-1144.
- 16. Ikeda T, Mori K, Kawamura K, et al. Comparison between autologous and allogeneic stem cell transplantation as salvage therapy for multiple myeloma relapsing/progressing after autologous stem cell transplantation. *Hematol Oncol.* 2019;37(5):586-594.
- 17. Mikhael J, Ismaila N, Cheung MC, et al. Treatment of multiple myeloma: ASCO and CCO Joint Clinical Practice Guideline. *J Clin Oncol.* 2019;37(14):1228-1263.
- 18. Morè S, Corvatta L, Manieri VM, et al. Autologous stem cell transplantation in multiple myeloma: where are we and where do we want to go? *Cells*. 2022;11(4):606.
- 19. Hernández-Rivas JÁ, Ríos-Tamayo R, Encinas C, Alonso R, Lahuerta JJ. The changing landscape of relapsed and/or refractory multiple myeloma (MM): Fundamentals and controversies. *Biomark Res.* 2022;10(1):1.

### Non-Hodgkin Lymphoma

- 1. National Cancer Institue. Adult Non-Hodgkin Lymphoma Treatment (PDQ®)– Health Professional Version.
- 2. Picleanu A, Novella S, Monter A, Garcia-Cadenas I, et al. Allogeneic hematopoetic stem cell transplantation for non-Hodgkin's lymphomas: a retrospective analysis of 77 cases. *Ann Hematol.* 2017;96:787-796.
- 3. Gilli S, Novak U, Taleghani M, Baerlocher G, et al. BeEAM conditioning with bendamustine-replacing BCNU before autologous transplantation is safe and effective in lymphoma patients. *Ann Hematol.* 2017;96:421-429.
- 4. Gupta A, Gokarn A, Rajamanickam D, Punatar S, Thippeswamy R, Mathew L, *et al.* Lomustine, cytarabine, cyclophosphamide, etoposide An effective conditioning regimen in autologous hematopoietic stem cell transplant for primary refractory or relapsed lymphoma: Analysis of toxicity, long-term outcome, and prognostic factors. *J Cancer Res Ther.* 2018;14(5)926-933.
- 5. Schmitz N, Lenz G, Stelljes M. Allogeneic hematopoietic stem cell transplantation for T-cell lymphomas. *Blood*. 2018;132(3):245-253.
- 6. Bozkaya Y, Uncu D, Dağdaş S, et al. Evaluation of lymphoma patients receiving high-dose therapy and autologous stem cell transplantation: Experience of a single center. *Indian J Hematol Blood Transfus*. 2017;33(3):361-369.
- 7. Jiménez-Ubieto A, Grande C, Caballero D, et al. Autologous stem cell transplantation may be curative for patients with follicular lymphoma with early therapy failure who reach complete response after rescue treatment. *Hematol Oncol.* 2018;36(5):765-772.
- 8. Strüßmann T, Fritsch K, Baumgarten A, et al. Favourable outcomes of poor prognosis diffuse large B-cell lymphoma patients treated with dose-dense Rituximab, high-dose Methotrexate and six cycles of CHOP-14 compared to first-line autologous transplantation. *Br J Haematol*. 2017;178(6):927-935.

- 9. Casasnovas RO, Ysebaert L, Thieblemont C, et al. FDG-PET-driven consolidation strategy in diffuse large B-cell lymphoma: final results of a randomized phase 2 study. *Blood*. 2017;130(11):1315-1326.
- 10. Qualls D, Sullivan A, Li S, et al. High-dose thiotepa, busulfan, cyclophosphamide, and autologous stem cell transplantation as upfront consolidation for systemic non-hodgkin lymphoma with synchronous central nervous system involvement. *Clin Lymphoma Myeloma Leuk*. 2017;17(12):884-888.
- 11. Fujita N, Kobayashi R, Atsuta Y, et al. Hematopoietic stem cell transplantation in children and adolescents with relapsed or refractory B-cell non-Hodgkin lymphoma. *Int J Hematol.* 2019;109(4):483-490.
- 12. García-Noblejas A, Cannata-Ortiz J, Conde E, et al. Autologous stem cell transplantation (ASCT) in patients with mantle cell lymphoma: a retrospective study of the Spanish lymphoma group (GELTAMO). *Ann Hematol.* 2017;96(8):1323-1330.
- 13. Wang J, Wei L, Ye J, et al. Autologous hematopoietic stem cell transplantation may improve long-term outcomes in patients with newly diagnosed extranodal natural killer/T-cell lymphoma, nasal type: a retrospective controlled study in a single center. *Int J Hematol*. 2018;107(1):98-104.
- 14. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: B-cell lymphomas. v.2.2022.
- 15. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: T-cell lymphomas. v.2.2022.
- 16. Mamez AC, Dupont A, Blaise D, et al. Allogeneic stem cell transplantation for peripheral T cell lymphomas: A retrospective study in 285 patients from the Societe Francophone de Greffe de Moelle et de Therapie Cellulaire (SFGM-TC). *J Hematol Oncol*. 2020;13(1):56.
- 17. Ghosh N, Ahmed S, Ahn KW, et al. Association of reduced-intensity conditioning regimens with overall survival among patients with non-Hodgkin lymphoma undergoing allogeneic transplant. *JAMA Oncol.* 2020;6(7):1011- 1018.
- 18. Shah NN, Ahn KW, Litovich C, et al. Allogeneic transplantation in elderly patients ≥65 years with non-Hodgkin lymphoma: a time-trend analysis. *Blood Cancer J.* 2019;9(12):97. Erratum in: Blood Cancer J. 2021;11(4):82.
- 19. Zoellner AK, Unterhalt M, Stilgenbauer S, et al. European Mantle Cell Lymphoma Network. Long-term survival of patients with mantle cell lymphoma after autologous haematopoietic stem-cell transplantation in first remission: A post-hoc analysis of an open-label, multicentre, randomised, phase 3 trial. *Lancet Haematol*. 2021;8(9):e648-e657.
- 20. Krüger, W. H., Hirt, C., Basara, N., et al (2021). Allogeneic stem cell transplantation for mantle cell lymphoma-update of the prospective trials of the East German Study Group Hematology/Oncology (OSHO#60 and #74). *Annals of hematology*, 100(6), 1569–1577.
- 21. Schmitz N, Truemper L, Bouabdallah K, et al. A randomized phase 3 trial of autologous vs allogeneic transplantation as part of first-line therapy in poor-risk peripheral T-NHL. *Blood.* 2021;137(19):2646-2656.
- 22. Du J, Yu D, Han X, Zhu L, Huang Z. comparison of allogeneic stem cell transplant and autologous stem cell transplant in refractory or relapsed peripheral T-cell lymphoma: A systematic review and meta-analysis. *JAMA Netw Open.* 2021;4(5):e219807.
- 23. Munshi PN, Hamadani M, Kumar A, et al. ASTCT, CIBMTR, and EBMT clinical practice recommendations for transplant and cellular therapies in mantle cell lymphoma. *Bone Marrow Transplant*. 2021;56(12):2911-2921.

# **Hodgkin Lymphoma**

- 1. American Cancer Society. High-dose Chemotherapy and Stem Cell Transplant for Hodgkin Lymphoma. Updated May 1, 2018.
- 2. Adult Hodgkin Lymphoma Treatment (PDQ®)-Health Professional Version. 2017.
- 3. NCCN Clinical practice guidelines in oncology: Hodgkin lymphoma. Version 2.2022.
- 4. Hodgkin Lymphoma Stages. Accessed February 14, 2020.

- 5. Gao L, Xiang X, Zhang C, et al. Upfront autologous hematopoietic stem cell transplantation in patients with high-risk stage III to IV Hodgkin lymphoma: A multicenter retrospective cohort study. *Hematology*. 2019; 24(1):225-231.
- 6. Martínez C, Gayoso J, Canals C, et al. Post-transplantation cyclophosphamide- based haploidentical transplantation as alternative to matched sibling or unrelated donor transplantation for Hodgkin lymphoma: A registry study of the Lymphoma Working Party of the European Society for Blood and Marrow Transplantation. *J Clin Oncol.* 2017; 35(30):3425-3432.
- 7. National Cancer Institute (NCI). Adult Hodgkin Lymphoma Treatment (PDQ) Health Professional Version. Updated November 24, 2021.
- 8. Moskowitz CH, Walewski J, Nademanee A, et al. Five-year PFS from the AETHERA trial of brentuximab vedotin for Hodgkin lymphoma at high risk of progression or relapse. *Blood*. 2018;132(25): 2639-2642.
- 9. Smith EP, Li H, Friedberg JW, et al. Tandem autologous hematopoietic cell transplantation for patients with primary progressive or recurrent Hodgkin lymphoma: A SWOG and Blood and Marrow Transplant Clinical Trials Network Phase II Trial (SWOG S0410/BMT CTN 0703). *Biol Blood Marrow Transplant*. 2018;24(4):700-707.
- 10. Bair SM, Strelec L, Nagle SJ, et al. Outcomes of patients with relapsed/refractory Hodgkin lymphoma progressing after autologous stem cell transplant in the current era of novel therapeutics: A retrospective analysis. *Am J Hematol.* 2017;92(9):879-884.
- 11. 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;26(7):1247-1256.
- 12. Scordo M, Wang TP, Ahn KW, et al. Outcomes associated with thiotepa-based conditioning in patients with primary central nervous system lymphoma after autologous hematopoietic cell transplant. *JAMA Oncol*. 2021;7(7):993-1003.

### **Chronic Myeloid Leukemia**

- 1. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Chronic myeloid leukemia. Version 3.2022.
- 2. Chhabra S, Ahn KW, Hu ZH, et al. Myeloablative vs reduced-intensity conditioning allogeneic hematopoietic cell transplantation for chronic myeloid leukemia. *Blood Adv.* 2018;13;2(21):2922-2936.
- 3. Bewersdorf JP, Zeidan AM. Risk-Adapted, Individualized Treatment Strategies of Myelodysplastic Syndromes (MDS) and Chronic Myelomonocytic Leukemia (CMML). *Cancers (Basel)*. 2021;13(7):1610.

## Acute Lymphoblastic Leukemia

- 1. Santoro N, Ruggeri A, Labopin M, et al. Unmanipulated haploidentical stem cell transplantation in adults with acute lymphoblastic leukemia: A study on behalf of the Acute Leukemia Working Party of the EBMT. *J Hematol Oncol* [serial online]. 2017;10(1):113.
- 2. Giebel S, Labopin M, Nagler A, et al. Improving results of allogeneic hematopoietic cell transplantation for adults with acute lymphoblastic leukemia in first complete remission: An analysis from the Acute Leukemia Working Party of the European Society for Blood and Marrow Transplantation. *Haematolog*. 2017;102(1):139-149.
- 3. Pavlu J, Labopin M, Zoellner AK, et al. Allogeneic hematopoietic cell transplantation for primary refractory acute lymphoblastic leukemia: A report from the Acute Leukemia Working Party of the EBMT. *Cancer*. 2017;123(11):1965-1970.
- 4. PDQ® Pediatric Treatment Editorial Board. PDQ Childhood Acute Lymphoblastic Leukemia Treatment. Bethesda, MD: National Cancer Institute. Updated December 22, 2021

- 5. PDQ® Adult Treatment Editorial Board. PDQ Adult Acute Lymphoblastic Leukemia Treatment. Bethesda, MD: National Cancer Institute. Updated January 18, 2022.
- 6. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Acute lymphoblastic leukemia. Version 4.2021.
- 7. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Pediatric acute lymphoblastic leukemia. Version 1.2022.
- 8. Pui C-H, Rebora P, Schrappe M, et al. outcome of children with hypodiploid acute lymphoblastic leukemia: A retrospective multinational study. *J Clin Oncol*. 2019;37(10):770-779.
- 9. Chang J, Douer D, Aldoss I, et al. Combination chemotherapy plus dasatnib leads to comparable overall survival and relapse-free survival rates as allogeneic hematopoietic stem cell transplantation in Philadelphia positive acute lymphoblastic leukemia. *Cancer Med.* 2019;8(6):2832-2839.
- 10. DeFilipp Z, Advani AS, Bachanova V, et al. Hematopoietic cell transplantation in the treatment of adult acute lymphoblastic leukemia: Updated 2019 evidence-based review from the American Society for Transplantation and Cellular Therapy. *Biol Blood Marrow Transplant*. 2019;25(11):2113-2123.
- 11. El Fakih R, Ahmed S, Alfraih F, Hanbali A. Hematopoietic cell transplantation for acute lymphoblastic leukemia in adult patients. *Hematol Oncol Stem Cell Ther*. 2017;10(4):252-258.
- 12. Yaniv I, Krauss AC, Beohou E, et al. Second hematopoietic stem cell transplantation for post-transplantation relapsed acute leukemia in children: A retrospective EBMT-PDWP study. *Biol Blood Marrow Transplant*. 2018;24(8):1629-1642.
- 13. Trujillo ÁM, Karduss AJ, Suarez G, et al. Haploidentical hematopoietic stem cell transplantation with post-transplantation cyclophosphamide in children with high-risk leukemia using a reduced-intensity conditioning regimen and peripheral blood as the stem cell source. *Transplant Cell Ther*. 2021;27(5):427.e1-427.e7.
- 14. Rosko A, Wang HL, de Lima M, et al. Reduced intensity conditioned allograft yields favorable survival for older adults with B-cell acute lymphoblastic leukemia. *Am J Hematol*. 2017;92(1):42-49.

## **Systemic Light Chain Amyloidosis**

- 1. D'Sa S, Kersten MJ, Castillo JJ, et al. Investigation and management of IgM and Waldenstrom-associated peripheral neuropathies: recommendations from the IWWM-8 consensus panel. *Br J Haematol.* 2017; 176(5):728-742.
- 2. Afrough A, Saliba RM, Hamdi A, et al. Impact of induction therapy on the outcome of immunoglobulin light chain amyloidosis after autologous hematopoietic stem cell transplantation. *Biol Blood Marrow Transplant*. 2018; 24(11):2197-2203.
- 3. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Systemic Light Chain Amyloidosis. Version 1.2022.
- 4. Yeh JC, Shank BR, Milton DR, Qazilbash MH. Adverse prognostic factors for morbidity and mortality during peripheral blood stem cell mobilization in patients with light chain amyloidosis. *Biol Blood Marrow Transplant*. 2018; 24(4):815-819.
- 5. Nguyen VP, Landau H, Quillen K, et al. Modified high-dose melphalan and autologous stem cell transplantation for immunoglobulin light chain amyloidosis. *Biol Blood Marrow Transplant*. 2018;24(9):1823-1827.
- 6. Cai Y, Xu S, Li N, Li S, Xu G. Efficacy of chemotherapies and stem cell transplantation for systemic AL amyloidosis: A network meta-analysis. *Front Pharmacol*. 2020;10:1601.
- 7. Sharpley FA, Petrie A, Mahmood S, Sachchithanantham S, Lachmann HJ, Gillmore JD, et al. A 24-year experience of autologous stem cell transplantation for light chain amyloidosis patients in the United Kingdom. *Br J Haematol.* 2019;187(5):642-652.
- 8. Sharpley FA, Manwani R, Petrie A, et al. Autologous stem cell transplantation vs bortezomib based chemotheraphy for the first-line treatment of systemic light chain amyloidosis in the UK. *Eur J Haematol*.

2021;106(4):537-545.

### Waldenström Macroglobulinemia

- 1. Cornell R. Allogeneic transplantation for relapsed Waldenström macroglobulinemia and lymphoplasmacytic lymphoma. *Biol Blood Marrow Transplant*. 2017; 23:60-66.
- 2. Abeykoon J. New developments in the management of Waldenström macroglobulinemia. *Cancer Manag Res.* 2017; 9:73-83.
- 3. Kapoor P, Ansell SM, Fonseca R, et al. Diagnosis and management of Waldenstrom macroglobulinemia: Mayo Stratification of Macroglobulinemia and Risk-Adapted Therapy (mSMART) Guidelines 2016. *JAMA Oncol.* 2017; 3(9):1257-1265
- 4. Talaulikar D, Tam CS, Joshua D, et al. Treatment of patients with Waldenstrom macroglobulinaemia: clinical practice guidelines from the Myeloma Foundation of Australia Medical and Scientific Advisory Group. *Intern Med J.* 2017; 47(1):35-49.
- 5. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Waldenstrom's macroglobulinemia/lymphoplasmacytic lymphoma. Version 2.2022.
- 6. Gertz MA. Waldenstrom macroglobulinemia: 2019 Update on diagnosis, risk stratification, and management. *Am J Hematol.* 2019; 94(2):266-276.
- 7. Parrondo RD, Reljic T, Iqbal M, et al. Efficacy of autologous and allogeneic hematopoietic cell transplantation in Waldenström macroglobulinemia: A systematic review and meta-analysis. *Clin Lymphoma Myeloma Leuk*. 2020;20(10):e694-e711.
- 8. Cornell RF, Bachanova V, D'Souza A, et al. Allogeneic transplantation for relapsed Waldenström macroglobulinemia and lymphoplasmacytic lymphoma. *Biol Blood Marrow Transplant*. 2017;23(1):60-66.
- 9. Ahmed S, Zhao Q, Hanel W, et al. Post-relapse survival in Waldenstrom macroglobulinemia patients experiencing therapy failure following autologous transplantation. *Hematol Oncol.* 2022;40(1):48-56.

# Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma

- 1. National Comprehensive Cancer Network (NCCN). NCCN Clinical practice guidelines in oncology: Chronic lymphocytic leukemia/Small lymphocytic lymphoma. V.2.2022.
- 2. Kharfan-Dabaja MA, Moukalled N, Reljic T, El-Asmar J, Kumar A. Reduced intensity is preferred over myeloablative conditioning allogeneic HCT in chronic lymphocytic leukemia whenever indicated: A systematic review/meta-analysis. *Hematol Oncol Stem Cell Ther*. 2018;11(2):53-64.
- 3. Roeker LE, Dreger P, Brown JR, et al. Allogeneic stem cell transplantation for chronic lymphocytic leukemia in the era of novel agents. *Blood Adv.* 2020;4(16):3977-3989.
- 4. Kim HT, Shaughnessy CJ, Rai SC, et al. Allogeneic hematopoietic cell transplantation after prior targeted therapy for high-risk chronic lymphocytic leukemia. *Blood Adv.* 2020;4(17):4113-4123.
- 5. Farina L, Barretta F, Scarfò L, et al. Refractory and 17p-deleted chronic lymphocytic leukemia: Improving survival with pathway inhibitors and allogeneic stem cell transplantation. *Biol Blood Marrow Transplant*. 2020;26(10):e256-e262.
- 6. Smolewski P, Robak T. Current treatment of refractory/relapsed chronic lymphocytic leukemia: A focus on novel drugs. *Acta Haematol*. 2021;144(4):365-379.

# Myelodysplastic Syndromes and Myeloproliferative Neoplasms

1. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Myeloproliferative Neoplasms, Version 2.2022.

- 2. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Myelodysplastic Syndromes, Version 3.2022.
- 3. Heidenreich S, Ziagkos D, de Wreede LC, et al. Allogeneic stem cell transplantation for patents age ≥70 years with myelodysplastic syndrome: A retrospective study of the MDS subcommittee of the chronic malignancies working party of the EBMT. *Biol Blood Marrow Transplant*. 2017;23(1):44-52.
- 4. Beelen DW, Trenschel R, Stelljes M, et al. Treosulfan or busulfan plus fludarabine as conditioning treatment before allogeneic haemopoietic stem cell transplantation for older patients with acute myeloid leukaemia or myelodysplastic syndrome (MC-FludT.14/L): A randomised, non-inferiority, phase 3 trial. *Lancet Haematol*. 2020;7(1):e28-e39.
- 5. Scott BL, Pasquini MC, Logan BR, et al. Myeloablative versus reduced- intensity hematopoietic cell transplantation for acute myeloid leukemia and myelodysplastic syndromes. *J Clin Oncol*. 2017;35(11):1154-1161.
- 6. Kröger N, Iacobelli S, Franke GN, et al. Dose-reduced versus standard conditioning followed by allogeneic stem-cell transplantation for patients with myelodysplastic syndrome: A prospective randomized phase iii study of the EBMT (RICMAC Trial). *J Clin Oncol*. 2017;35(19):2157-2164.
- 7. Gowin K, Ballen K, Ahn KW, et al. Survival following allogeneic transplant in patients with myelofibrosis. *Blood Adv.* 2020:4(9):1965-1973.
- 8. Chatain N, Koschmieder S, Jost E. Role of inflammatory factors during disease pathogenesis and stem cell transplantation in myeloproliferative neoplasms. *Cancers (Basel)*. 2020;12(8):2250.
- 9. Danielson N, Byrne M. Indications for Allogeneic Hematopoietic Cell Transplantation in Myelodysplastic Syndrome. *Curr Hematol Malig Rep.* 2020;15(4):268-275.
- 10. Prem S, Atenafu EG, Lam W, et al. Allogeneic stem cell transplant in myelodysplastic syndrome-factors impacting survival. *Eur J Haematol*. 2020;104(2):116-124.
- 11. Bewersdorf JP, Sheth AH, Vetsa S, et al. Outcomes of allogeneic hematopoietic cell transplantation in patients with myelofibrosis-A systematic review and meta-analysis. *Transplant Cell Ther*. 2021;27(10):873.e1-873.e13.

# **Donor Leukocyte Infusion**

- 1. Vaezi M, Zokaasadi M, Shahsavari Pour S, et al. The role of donor leukocyte infusions in the treatment of relapsed acute leukemia after allogeneic stem cell transplantation: A retrospective analysis. *Int J Hematol-Oncol Stem Cell Res.* 2018;12(3):184-191.
- 2. Miyamoto T, Fukada T, Nakashima M, et al. Donor leukocyte infusion for relapsed hematological malignancies after unrelated allogeneic bone marrow transplantation facilitated bu the Japan Marrow Donor Program. *Biol Blood Marrow Transplant*. 2017;23:938-944.
- 3. Aladag E, Goker H, Buyukasik Y, Demiroglu H. Effect of salvage chemotherapy before donor lymphocyte infusion in patients with relapse after allogeneic hematologic stem cell transplantation. *Transplant Proc.* 2021;53(1):391-395.
- 4. Ali T, Behfar M, Mohseni R, Salajegheh P, et al. Escalated dose donor lymphocyte infusion treatment in patients with primary immune deficiencies after HSCT with reduced-intensity conditioning regimen. Hematol Oncol Stem Cell Ther. 2021:S1658-3876(21)00059-5.
- 5. Dholaria B, Savani BN, Labopin M, etal. Clinical applications of donor lymphocyte infusion from an HLA-haploidentical donor: consensus recommendations from the Acute Leukemia Working Party of the EBMT. *Haematologica*. 2020;105(1):47-58.
- 6. Krakow EF. Current state of non-engrafting donor leukocyte infusion (focus on microtransplantation for acute myeloid leukemia). *Curr Opin Hematol*. 2019;26(6):373-378.

# **ND Committee Review**

Internal Medical Policy Committee 7-21-2022 New Policy consisting of a combination of the following policies

- S-206 Hematopoietic Cell Transplantation for Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma; and
- S-207 Hematopoietic Cell Transplantation for Chronic Lymphocytic Leukemia and Small Lymphocytic Lymphoma; and
- S-208 Hematopoietic Cell Transplantation for Non-Hodgkin Lymphomas; and
- S-209 Allogeneic Hematopoietic Cell Transplantation for Myelodysplastic
   Syndromes and Myeloproliferative Neoplasms; and
- S-214 Hematopoietic Cell Transplantation for Acute Myeloid Leukemia; and
- S-217 Hematopoietic Cell Transplantation for Hodgkin Lymphoma; and
- S-218 Hematopoietic Cell Transplantation for Chronic Myeloid Leukemia; and
- S-220 Hematopoietic Cell Transplantation for Acute Lymphoblastic Leukemia;
   and
- S-223 Hematopoietic Cell Transplantation for Primary Amyloidosis; and
- S-224 Hematopoietic Cell Transplantation for Waldenström Macroglobulinemia;
   and
- S-143 Donor Leukocyte Infusion for Hematologic Malignancies that Relapse after Allogeneic Cell Transplant

Internal Medical Policy Committee 5-23-2023 Annual Review - no changes in criteria Internal Medical Policy Committee 5-14-2024 Annual Review - no changes in criteria

Added Policy Application

Internal Medical Policy Committee 9-17-2024 Coding- Effective 10/1/2024

- o *Removed* Diagnosis code C88.8 from Procedure Codes: 38205, 38230, 38240, S2140, S2142, and S2150.
- Removed Diagnosis codes C86.0, C86.1, C86.2, C86.3, C86.4, C86.5, C86.6, C88.4 and
- Added D iagnosis codes C88.80 and C88.81 to Procedure Codes 38205, 38206, 38230, 38232, 38240, 38241, S2140, S2142, and S2150.
- *Removed* Diagnosis code C88.0 and added diagnosis codes C88.00 and C88.01 to (Waldenstrom Macroglobulinemia) section.
- Removed Diagnosis codes C86.0, C86.1, C86.2, C86.3, C86.4, C86.5, C86.6, C88.4 and
- Added Diagnosis codes C88.40, C88.41, C83.390, C83.398, C86.00, C86.01, C86.10, C86.11, C86.20, C86.21, C86.30, C86.31, C86.40, C86.41, C86.50, C86.51, C86.60, and C86.61 to Procedure Code 38242.

### Disclaimer

Current medical policy is to be used in determining a Member's contract benefits on the date that services are rendered. Contract language, including definitions and specific inclusions/exclusions, as well as state and federal law, must be considered in determining eligibility for coverage. Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information. Likewise, medical

policy, which addresses the issue(s) in any specific case, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and the Company reserves the right to review and update medical policy periodically.