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MEDICAL POLICY – 8.01.25

Hematopoietic Cell Transplantation for Autoimmune Diseases

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Replaces:	N/A

RELATED MEDICAL POLICIES:

5.01.556 Rituximab: Non-oncologic and Miscellaneous Uses

Select a hyperlink below to be directed to that section.

POLICY CRITERIA | DOCUMENTATION REQUIREMENTS | CODING
RELATED INFORMATION | EVIDENCE REVIEW | REFERENCES | HISTORY

Clicking this icon returns you to the hyperlinks menu above.

Introduction

The body's immune system fights against disease and infection. However, the immune system can sometimes mistake healthy cells for foreign cells and start attacking them. This is known as an autoimmune disorder. Examples of autoimmune disorders include rheumatoid arthritis, multiple sclerosis, and inflammatory bowel disease. Stem cells are like basic building blocks. They can develop into many different types of cells. Stem cells are being studied as a way to treat autoimmune diseases. The idea is to eliminate a certain type of white blood cell (lymphocyte) that is attacking normal, healthy cells. Stem cells are then given to the individual so that new lymphocytes can be formed. This treatment is investigational for autoimmune diseases. More studies are needed to find out if this treatment works.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Policy Coverage Criteria

Treatment	Medically Necessary
Autologous hematopoietic cell transplantation	**Autologous hematopoietic cell transplantation is considered medically necessary as a treatment of systemic sclerosis/scleroderma if ALL of the following conditions are met:** • Adult individuals aged less than 60 years • Maximum duration of condition of 5 years • Modified Rodnan Scale Scores greater or equal to 15 • Internal organ involvement as noted in **Related Information** • History of less than 6 months of treatment with cyclophosphamide • No active gastric antral vascular ectasia (UGI bleeding) • Do not have any exclusion criteria as noted in **Related Information** **Autologous hematopoietic cell transplantation as a treatment of systemic sclerosis/scleroderma not meeting the above criteria is considered investigational.**

Treatment	Investigational
Autologous or allogeneic hematopoietic cell transplantation	**Autologous or allogeneic hematopoietic cell transplantation is considered investigational as a treatment of autoimmune diseases, including, but not limited to the following:** • Multiple sclerosis • Systemic lupus erythematosus • Juvenile idiopathic or rheumatoid arthritis • Chronic inflammatory demyelinating polyneuropathy • Type 1 diabetes

Documentation Requirements
The individual's medical records submitted for review should document that medical necessity criteria are met. The record should include clinical documentation of: • Diagnosis/condition • History and physical examination documenting the severity of the condition and how long an individual has had condition

Documentation Requirements
• Modified Rodnan Scale scores • Length of treatment (if any) with cyclophosphamide

Coding

Code	Description
CPT	
38230	Bone marrow harvesting for transplantation; allogeneic
38232	Bone marrow harvesting for transplantation; autologous
38240	Hematopoietic progenitor cell (HPC); allogeneic transplantation per donor
38241	Hematopoietic progenitor cell (HPC); autologous transplantation
HCPCS	
S2150	Bone marrow or blood-derived peripheral stem cell (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

Related Information

Exclusion Criteria

Autologous hematopoietic cell transplantation (HCT) should be considered for individuals with systemic sclerosis (SSc) only if the condition is rapidly progressing and the prognosis for survival is poor. An important factor influencing the occurrence of treatment-related adverse effects and response to treatment is the level of internal organ involvement. **If organ involvement is severe and irreversible, hematopoietic cell transplantation (HCT) is not recommended.**

Below are clinical measurements which can be used to guide the determination of organ involvement.

Individuals with internal organ involvement indicated by the following measurements MAY BE CONSIDERED for autologous HCT:

- Cardiac: abnormal electrocardiogram

OR

- Pulmonary: diffusing capacity of carbon monoxide (DLCo) less than 80% of predicted value; decline of forced vital capacity (FVC) of greater or equal to 10% in last 12 months; pulmonary fibrosis; ground glass appearance on high resolution chest CT

OR

- Renal: scleroderma-related renal disease

Individuals with internal organ involvement indicated by the following measurements SHOULD NOT BE CONSIDERED for autologous HCT:

- Cardiac: left ventricular ejection fraction <50%; tricuspid annular plane systolic excursion less than 1.8 cm; pulmonary artery systolic pressure greater than 40 mm Hg; mean pulmonary artery pressure greater than 25 mm Hg
- Pulmonary: diffusing capacity of carbon monoxide (DLCo) less than 40% of predicted value; forced vital capacity (FVC) less than 45% of predicted value
- Renal: creatinine clearance less than 40 ml/minute

Evidence Review

Description

Most individuals with autoimmune disorders respond to conventional drug therapies; however, conventional drug therapies are not curative—and a proportion of individuals suffer from autoimmune diseases that range from severe to recalcitrant to rapidly progressive. It is in this group of individuals with a severe autoimmune disease that alternative therapies have been sought, including hematopoietic cell transplantation (HCT).

Background

Autoimmune Diseases

Autoimmune diseases represent a heterogeneous group of immune-mediated disorders, including multiple sclerosis, systemic sclerosis/scleroderma, systemic lupus erythematosus, rheumatoid arthritis, and chronic immune demyelinating polyneuropathy. The National Institutes of Health estimates that 5% to 8% of Americans have an autoimmune disorder.

The goal of autologous hematopoietic cell transplantation (HCT) in individuals with autoimmune diseases is to eliminate self-reactive lymphocytes (lymphoablation) and generate new, self-tolerant lymphocytes. While evidence for the use of allogeneic HCT (allo-HCT) for autoimmune diseases is currently limited, the goal is to possibly eliminate genetic susceptibility to the autoimmune disease, potentially resulting in a cure.

Treatment

Immune suppression is a common treatment strategy for many autoimmune diseases, particularly the rheumatic diseases (e.g., rheumatoid arthritis [RA], systemic lupus erythematosus [SLE], scleroderma). Most individuals with autoimmune disorders respond to conventional therapies, which consist of anti-inflammatory agents, immunosuppressants, and immunomodulating drugs; however, conventional drug therapies are not curative, and a proportion of individuals suffer from autoimmune diseases that range from severe to recalcitrant to rapidly progressive. It is for this group of individuals with a severe autoimmune disease that alternative therapies have been sought, including HCT. The primary concept underlying the use of HCT for these diseases is this ablating and "resetting" the immune system can alter the disease process, by inducing a sustained remission that possibly leads to cure.[1]

Hematopoietic Cell Transplantation

HCT is a procedure in which hematopoietic stem cells are intravenously infused to restore bone marrow and immune function in cancer patients who receive bone-marrow-toxic doses of drugs with or without whole-body radiotherapy. Hematopoietic stem cells may be obtained from the transplant recipient (autologous HCT) or from a donor (allogeneic HCT [allo-HCT]). They can be

harvested from bone marrow, peripheral blood, or umbilical cord blood shortly after delivery of neonates.

Immunologic compatibility between infused hematopoietic stem cells and the recipient is not an issue in autologous HCT. In allogeneic stem cell transplantation, immunologic compatibility between donor and patient is a critical factor for achieving a successful outcome. Compatibility is established by typing of human leukocyte antigens (HLA) using cellular, serologic, or molecular techniques. The term HLA refers to the gene complex expressed at the HLA-A, -B, and -DR (antigen-D related) loci on each arm of chromosome six. An acceptable donor will match the patient at all or most of the HLA loci.

Conditioning for Hematopoietic Cell Transplantation

Conventional Conditioning

The conventional ("classical") practice of allo-HCT involves administration of cytotoxic agents (e.g., cyclophosphamide, busulfan) with or without total body irradiation at doses sufficient to cause bone marrow ablation in the recipient. The beneficial treatment effect of this procedure is due to a combination of the initial eradication of malignant cells and subsequent graft-versus-malignancy (GVM) effect mediated by non-self-immunologic effector cells. While the slower GVM effect is considered the potentially curative component, it may be overwhelmed by existing disease in the absence of pretransplant conditioning. Intense conditioning regimens are limited to individuals who are sufficiently medically fit to tolerate substantial adverse effects. These include opportunistic infections secondary to loss of endogenous bone marrow function and organ damage or failure caused by cytotoxic drugs. Subsequent to graft infusion in allo-HCT, immunosuppressant drugs are required to minimize graft rejection and graft-versus-host disease (GVHD), which increases susceptibility to opportunistic infections.

The success of autologous HCT is predicated on the potential of cytotoxic chemotherapy, with or without radiotherapy, to eradicate cancerous cells from the blood and bone marrow. This permits subsequent engraftment and repopulation of the bone marrow with presumably normal hematopoietic stem cells obtained from the patient before undergoing bone marrow ablation. Therefore, autologous HCT is typically performed as consolidation therapy when the individual's disease is in complete remission. Individuals who undergo autologous HCT are also susceptible to chemotherapy-related toxicities and opportunistic infections before engraftment, but not GVHD.

Reduced-Intensity Conditioning Allogeneic Hematopoietic Cell Transplantation

Reduced-intensity conditioning (RIC) refers to the pretransplant use of lower doses of cytotoxic drugs or less intense regimens of radiotherapy than are used in traditional full-dose myeloablative conditioning treatments. Although the definition of RIC is variable, with numerous versions employed, all regimens seek to balance the competing effects of relapse due to residual disease and non-relapse mortality. The goal of RIC is to reduce disease burden and to minimize associated treatment-related morbidity and non-relapse mortality in the period during which the beneficial GVM effect of allogeneic transplantation develops. RIC regimens range from nearly total myeloablative to minimally myeloablative with lymphoablation, with intensity tailored to specific diseases and patient condition. Individuals who undergo RIC with allo-HCT initially demonstrate donor cell engraftment and bone marrow mixed chimerism. Most will subsequently convert to full-donor chimerism. In this policy, the term reduced-intensity conditioning will refer to all conditioning regimens intended to be nonmyeloablative.

Summary of Evidence

For individuals with multiple sclerosis (MS) who receive HCT, the evidence includes randomized controlled trials (RCTs), systematic reviews, and several nonrandomized studies. The relevant outcomes are overall survival (OS), health status measures, quality of life (QOL), and treatment-related mortality (TRM) and morbidity. One RCT compared HCT with mitoxantrone, and the trial reported intermediate outcomes (number of new T2 magnetic resonance imaging lesions); the group randomized to HCT developed significantly fewer lesions than the group receiving conventional therapy. The other RCT compared nonmyeloablative HCT results in individuals with continued disease-modifying therapy and found a benefit to HCT in prolonged time to disease progression. The findings of the nonrandomized studies revealed improvements in clinical parameters following HCT compared with baseline. Adverse event rates were high, and most studies reported treatment-related deaths. Controlled trials (with appropriate comparator therapies) reporting on clinical outcomes are needed to demonstrate efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with systemic sclerosis/scleroderma who receive HCT, the evidence includes systematic reviews, three RCTs and observational studies. The relevant outcomes are OS, symptoms, health status measures, QOL, and TRM and morbidity. All three RCTs compared cyclophosphamide conditioning plus autologous HCT with cyclophosphamide alone. Individuals

in the RCTs were adults <60 years of age with a maximum duration of disease of five years, with modified Rodnan skin scores >15, and internal organ involvement. Individuals with severe and irreversible organ involvement were excluded from the trials. Short-term results of the RCTs show higher rates of adverse events and treatment-related mortality (TRM) among individuals receiving autologous HCT compared with individuals receiving chemotherapy alone. However, long-term improvements (four years) in overall mortality and clinical outcomes such as modified Rodnan skin scores and forced vital capacity in individuals receiving HCT compared with individuals receiving cyclophosphamide alone, were consistently reported in all RCTs. Due to sample size limitations in two of the three RCTs, statistical significance was found only in the larger RCT. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with systemic lupus erythematosus who receive HCT, the evidence includes a systematic review and case series. The relevant outcomes are OS symptoms, QOL, and treatment-related mortality (TRM) and morbidity. Studies were heterogeneous in conditioning regimens and source of cells. The largest series (N=50) reported an overall 5-year survival rate of 84% and the probability of disease-free survival was 50%. Additional data are needed from controlled studies to demonstrate efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with juvenile idiopathic or rheumatoid arthritis who receive HCT, the evidence includes registry data and a case series. The relevant outcomes are OS, symptoms, QOL, and TRM and morbidity. The registry included 50 individuals with juvenile idiopathic or rheumatoid arthritis. The overall drug-free remission rate was approximately 50% in the registry individuals and 69% in the smaller case series. Additional data are needed from controlled studies to demonstrate efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with chronic inflammatory demyelinating polyneuropathy who receive HCT, the evidence includes a recent observational study and case reports. The relevant outcomes are OS, symptoms, health status measures, QOL, and TRM and morbidity. Additional data are needed from controlled studies to demonstrate efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with type 1 diabetes who receive HCT, the evidence includes case series and two meta-analyses. The relevant outcomes are OS, symptoms, health status measures, QOL, and TRM and morbidity. While a substantial proportion of individuals tended to become insulin-free after HCT, remission rates were high. The meta-analyses revealed that HCT may improve hemoglobin A1c and C-peptide levels compared with baseline values and compared with insulin. One meta-analysis found that HCT is more effective in individuals with type 1 diabetes

compared with type 2 diabetes and when the treatment is administered soon after the diagnosis. Certain factors limit the conclusions that can be drawn about the overall effectiveness of HCT in treating diabetes; those factors are heterogeneity in the stem cell types, cell number infused, and infusion methods. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with other autoimmune diseases (e.g., Crohn disease, immune cytopenias, relapsing polychondritis) who receive HCT, the evidence includes two RCTs and small retrospective studies and case series. The relevant outcomes are OS, symptoms, health status measures, QOL, and TRM and morbidity. The RCT was conducted on individuals with Crohn disease. At one year follow-up, one individual in the control group and two individuals in the HCT group achieved remission. Data is needed from additional controlled studies to demonstrate efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Ongoing and Unpublished Clinical Trials

Some currently ongoing and unpublished trials that might influence this review are listed in **Table 1**.

Table 1. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date
Ongoing			
NCT02674217	Outpatient Hematopoietic Grafting in Patients with Multiple Sclerosis Employing Autologous Non-cryopreserved Peripheral Blood Stem Cells: a Feasibility Study	1000	Dec 2025
NCT03477500	Randomized Autologous Hematopoietic Stem Cell Transplantation Versus Alemtuzumab for Patients with Relapsing Remitting Multiple Sclerosis	100	Mar 2026
NCT04047628	A Multicenter Randomized Controlled Trial of Best Available Therapy Versus Autologous Hematopoietic Stem Cell Transplant for Treatment-Resistant Relapsing Multiple Sclerosis (ITN077AI)	156	Oct 2029
NCT03219359	Maintenance in Autologous Stem Cell Transplant for Crohn's Disease (MASCT - CD)	50	Apr 2026

NCT No.	Trial Name	Planned Enrollment	Completion Date
NCT00716066	High-Dose Immunosuppressive Therapy Using Carmustine, Etoposide, Cytarabine, and Melphalan (BEAM) + Thymoglobulin Followed by Syngeneic or Autologous Hematopoietic Cell Transplantation for Patients With Autoimmune Neurologic Diseases	53	Jan 2030
NCT05029336	Autologous Stem Cell Transplant (ASCT) for Autoimmune Diseases	20	May 2031
NCT03000296	Autologous Unselected Hematopoietic Stem Cell Transplantation for Refractory Crohn's Disease	50	Dec 2024
NCT04464434	Upfront Autologous Hematopoietic Stem Cell Transplantation Versus Immunosuppressive Medication in Early Diffuse Cutaneous Systemic Sclerosis: an International Multicentre, Open-label, Randomized Con-trolled Trial	50	Oct 2030
Unpublished			
NCT03069170	Safety and Efficacy of Immuno-Modulation and Autologous Bone-Marrow Derived Stem Cell Transplantation for the Treatment of Multiple Sclerosis	50	Jan 2021
NCT03113162	Evaluation of the Safety and Efficacy of Reduced-Intensity Immunoablation and Autologous Hematopoietic Stem Cell Transplantation (AHSCT) in Multiple Sclerosis	15	May 2022
NCT00750971	An Open-Label, Phase II Multicenter Cohort Study of Immunoablation with Cyclophosphamide and Antithymocyte-Globulin and Transplantation of Autologous CD34-Enriched Hematopoietic Stem Cells versus Currently Available Immunosuppressive /Immunomodulatory Therapy for Treatment of Refractory Systemic Lupus Erythematosus	30	Aug 2020
NCT01895244	High dose Chemotherapy and Transplantation of 43+ Selected Stem Cells for Progressive Systemic Sclerosis - Modification According to Manifestation	44	Jun 2024

NCT: national clinical trial.

[a] denotes industry sponsored or co-sponsored trial.

Practice Guidelines and Position Statements

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the policy conclusions.

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a US professional society, an international society with US representation, or the National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Society for Transplantation and Cellular Therapy

In 2020, the American Society for Transplantation and Cellular Therapy (formerly the American Society for Blood and Marrow Transplantation) published consensus guidelines on the use of HCT to treat specific conditions in and out of the clinical trial setting.[60] **Table 2** summarizes recommendations for specific indications addressed in this guideline.

Table 2. Recommendations for the Use of HCT to Treat Autoimmune Diseases

Indications for HCT in Pediatric Patients (Generally less than 18 years)	Allogeneic HCT[a]	Autologous HCT[a]
Juvenile rheumatoid arthritis	D	R
Systemic sclerosis	D	R
Other autoimmune and immune dysregulation disorders	R	N
Indications for HCT in Adults greater than 18 years	**Allogeneic HCT[a]**	**Autologous HCT[a]**
Multiple sclerosis	N	C
Systemic sclerosis	N	S
Rheumatoid arthritis	N	D
Systemic lupus erythematosus	N	D
Crohn disease	N	D
Polymyositis-dermatomyositis	N	D

HCT: hematopoietic cell transplantation.

[a] "Standard of care (S): This category includes indications that are well defined and are generally supported by evidence in the form of high-quality clinical trials and/or observational studies (e.g., through CIBMTR or EBMT)." "Standard of care, clinical evidence available (C): This category includes indications for which large clinical trials and observational studies are not available. However, HCT/immune effector cell therapy (IECT) has been shown to be an

effective therapy with acceptable risk of morbidity and mortality in sufficiently large single- or multi-center cohort studies. HCT/IECT can be considered as a treatment option for individual patients after careful evaluation of risks and benefits. As more evidence becomes available, some indications may be reclassified as 'Standard of Care'." "Standard of care, rare indication (R): Indications included in this category are rare diseases for which clinical trials and observational studies with sufficient number of patients are not currently feasible because of their very low incidence. However, single-center or multicenter or registry studies in relatively small cohorts of patients have shown HCT/IECT to be effective treatment with acceptable risks of morbidity and mortality. For patients with diseases in this category, HCT/IECT can be considered as a treatment option for individual patients after careful evaluation of risks and benefits." "Developmental; (D): Developmental indications include diseases where pre-clinical and/or early phase clinical studies show HCT/IECT to be a promising treatment option. HCT/IECT is best pursued for these indications as part of a clinical trial. As more evidence becomes available, some indications may be reclassified as 'Standard of Care, Clinical Evidence Available' or 'Standard of Care'." "Not generally recommended (N): HCT/IECT is not currently recommended for these indications where evidence and clinical practice do not support the routine use of HCT/IECT. However, this recommendation does not preclude investigation of HCT/IECT as a potential treatment and may be pursued for these indications within the context of a clinical trial."

Medicare National Coverage

There are numerous autoimmune diseases, and the Centers for Medicare and Medicaid Services has not issued a national coverage determination for stem cell transplantation for each disease. A general national coverage determination for stem cell transplantation (110.23; formerly 110.8.1) states as listed in **Table 3**.[61]

Table 3. Nationally Covered and Noncovered Indications for HCT

Covered and Noncovered Indications
Nationally Covered Indications
Allogeneic HCT
"Effective …1978, for the treatment of leukemia, leukemia in remission, or aplastic anemia when it is reasonable and necessary"
"Effective … 1985, for the treatment of severe combined immunodeficiency disease (SCID) and for the treatment of Wiskott-Aldrich syndrome"
"Effective … 2010, for the treatment of Myelodysplastic Syndromes (MDS) pursuant to Coverage with Evidence Development (CED) in the context of a Medicare-approved, prospective clinical study"
Autologous HCT
"Effective … 1989, [autologous HCT] is considered reasonable and necessary … for the following conditions and is covered under Medicare for patients with: 1. Acute leukemia in remission who have a high probability of relapse and who have no human leucocyte antigens (HLA)-matched;

Covered and Noncovered Indications
2. Resistant non-Hodgkin's lymphomas or those presenting with poor prognostic features following an initial response; 3. Recurrent or refractory neuroblastoma; or, 4. Advanced Hodgkin's disease who have failed conventional therapy and have no HLA-matched donor."
"Effective … 2000, single [autologous HCT] is only covered for Durie-Salmon Stage II or III patients that fit the following requirements: • Newly diagnosed or responsive multiple myeloma. This includes those patients with previously untreated disease, those with at least a partial response to prior chemotherapy (defined as a 50% decrease either in measurable paraprotein [serum and/or urine] or in bone marrow infiltration, sustained for at least 1 month), and those in responsive relapse; and • Adequate cardiac, renal, pulmonary, and hepatic function."
"Effective … 2005, when recognized clinical risk factors are employed to select patients for transplantation, high dose melphalan (HDM) together with [autologous HCT] is reasonable and necessary for Medicare beneficiaries of any age group with primary amyloid light chain (AL) amyloidosis who meet the following criteria: • Amyloid deposition in 2 or fewer organs; and, • Cardiac left ventricular ejection fraction (EF) greater than 45%."
Nationally Noncovered Indications
Allogeneic HCT
"Effective … 1996, through January 26, 2016, allogeneic [HCT] is not covered as treatment for multiple myeloma."
Autologous HCT
"Insufficient data exist to establish definite conclusions regarding the efficacy of [autologous HCT] for the following conditions: a) Acute leukemia not in remission; b) Chronic granulocytic leukemia; c) Solid tumors (other than neuroblastoma); d) Up to October 1, 2000, multiple myeloma; e) Tandem transplantation (multiple rounds of [autologous HCT]) for patients with multiple myeloma; f) Effective … 2000, non-primary AL amyloidosis; and, g) Effective … 2000 through March 14, 2005, primary AL amyloidosis for Medicare beneficiaries aged 64 or older. In these cases, [autologous HCT] is not considered reasonable and necessary … and is not covered under Medicare."

HCT: hematopoietic cell transplantation.

Regulatory Status

The US Food and Drug Administration regulates human cells and tissues intended for implantation, transplantation, or infusion through the Center for Biologics Evaluation and

Research, under Code of Federal Regulation title 21, parts 1270 and 1271. Hematopoietic stem cells are included in these regulations.

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History

Date	Comments
02/01/00	Add to Therapy Section - New Policy
12/21/00	Replace policy - Policy statement revised to state that allogeneic transplant after a prior failed autotransplant is considered investigational, based on 2000 TEC Assessment.
05/14/02	Replace policy - Policy updated based on 2002 TEC Assessment; policy statement unchanged.
06/17/03	Replace policy - Update CPT codes only.
08/12/03	Replace policy - Reviewed and recommended for adoption without any changes by Company Oncology Advisory Panel July 22, 2003.
10/12/04	Replace policy - Policy reviewed with literature search; no change to policy statement. Approved by OAP 10/29/04, no need to go back to MPC.

Date	Comments
08/09/05	Replace policy - Policy reviewed with literature search; no clinical trial information found; policy statement unchanged.
07/11/06	Replace policy - Policy updated with literature review; references added; no changes to policy statement.
12/11/07	Replace policy - Policy updated with literature review; references added; no change in policy statement.
05/13/08	Cross Reference Update - No other changes
11/11/08	Replace policy - Policy updated with literature search. Minor change to the policy statement to align with new title. Hematopoietic and Transplantation added to the title and incorporated throughout the policy. References added.
11/10/09	Replace policy - Policy updated with literature search; "hematopoietic" added to the policy statement, intent unchanged. References added.
02/09/10	Code Update - New 2010 codes added.
12/14/10	Replace policy - Policy updated and extensively revised with literature search; reference numbers 5–12, 14–18, and 20 and 21 added. Added indications of juvenile idiopathic arthritis and diabetes mellitus to policy statement as investigational.
10/11/11	Replace policy – Policy updated with literature search; reference numbers 8, 16 and 17 added; references renumbered. Policy statements unchanged. ICD-10 codes added; codes 38220 and 38221 removed from policy.
01/24/12	Code 38232 added.
06/20/12	Minor update: Related Policies updated; 8.01.17 replaced 8.01.507 effective June 12, 2012.
07/30/12	Related policy updates to titles of 8.01.17,8.01.21, 8.01.26, 8.01.27, 8.01.29, 8.01.30, 8.01.31, 8.01.514, 8.01.520
11/27/12	Replace policy - Policy updated with literature search; reference numbers 15-18 and 25 added; references renumbered. Policy statements unchanged.
02/01/13	Update Related Policies, change title of policy 8.01.21.
03/20/13	The following codes were removed from the policy, as they were not suspending and just informational: HCPCS J9000-J999 and Q0083 – Q0085.
09/30/13	Update Related Policies. Change title to 8.01.31.
10/18/13	Update Related Policies. Change title to 8.01.17.
12/09/13	Replace policy. Policy updated with literature search through August 31, 2013; reference numbers 28-30 added. Chronic inflammatory demyelinating polyneuropathy added as an investigational indication.
03/11/14	Coding Update. Codes 41.06 and 41.08 were removed per ICD-10 mapping project; these codes are not utilized for adjudication of policy.

Date	Comments
03/21/14	Update Related Policies. Delete 8.01.514.
04/18/14	Update Related Policies. Remove 8.01.20 and add 8.01.529.
06/24/14	Update Related Policies. Remove 8.01.35, 8.01.42, then add 8.01.530 and 8.01.532.
12/17/14	Annual Review. Policy updated with literature review through September 15, 2014; references 3-4 deleted and 18, 31 added. Policy statements unchanged. ICD-9 and ICD-10 diagnosis and procedure codes removed; these do not relate to policy adjudication.
02/03/15	Update Related Policies. Remove 8.01.23, 8.01.28 and 8.01.30.
08/19/15	Update Related Policies. Remove 8.02.02.
12/08/15	Annual Review. Literature review performed; no change in policy statements.
04/01/16	Annual Review, approved March 8, 2016. Policy updated with literature review through December 10, 2015; references 5, 9, 11, 13, 26-27, 29 and 31 added. Policy statements unchanged.
08/09/16	Update Related Policies. Remove 8.01.27 as it was archived.
11/04/16	Coding update. Removed codes that are transplant benefit related.
04/01/17	Update Related Policies; updated some titles. Minor formatting update.
06/09/17	Coding update, updated description for CPT codes 38240 and 38241.
08/01/17	Updated title of Related Policy 8.01.511.
10/01/17	Annual Review, approved September 5, 2017.Policy moved into new format. Policy updated with literature review through June 2, 2017; references 14-16, 26, 31-32, 36, and 38 added. “Stem” removed from title and Policy. HSCT changed to HCT in Policy and Policy Guidelines. Policy statement unchanged
05/01/18	Annual Review, approved April 3, 2018. Policy updated with literature review through November 2017; reference 37 added; note 40 updated. Policy statement unchanged.
04/01/19	Annual Review, approved March 12, 2019. Policy updated with literature review through October 2018; references 7, 16, 18-19, 22, 27, 31-32, 34, 44-46, 49-50, and 54-55 added. Policy statement for systemic sclerosis was changed from “investigational” to “medically necessary”.
04/01/20	Annual Review, approved March 19, 2020. Policy updated with literature review through November 2019; references added. Minor edit made to the Policy section; statement unchanged. Removed CPT code 38242, does not match criteria.
04/01/21	Annual Review, approved March 2, 2021. Policy updated with literature review through December 1, 2020; references added. Policy statements unchanged. Removed reference to policy 8.01.22 from Related Medical Policies, as it has been deleted and replaced with policy 8.01.538 Allogeneic Hematopoietic Cell Transplantation for Genetic Diseases and Acquired Anemias.

Date	Comments
05/01/21	Update Related Policies. Removed policy 7.01.50 as it was archived.
04/01/22	Annual Review, approved March 7, 2022. Policy updated with literature review through December 1, 2021; references added. Policy statements unchanged.
04/01/23	Annual Review, approved March 20, 2023. Policy updated with literature review through November 17, 2022; references added. Minor editorial refinements to policy statements; intent unchanged. Changed the wording from "patient" to "individual" throughout the policy for standardization.
04/01/24	Annual Review, approved March 25, 2024. Policy updated with literature review through November 14, 2023; no references added. Policy statements unchanged.
04/01/25	Annual Review, approved March 10, 2025. Policy updated with literature review through November 21, 2024; references added. Policy statements unchanged.

Scope: Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.