

## MEDICAL POLICY – 8.01.17

# Hematopoietic Cell Transplantation for Plasma Cell Dyscrasias, Including Multiple Myeloma and POEMS Syndrome

BCBSA Ref. Policy: 8.01.17

Effective Date: April 1, 2019

Last Revised: March 5, 2019

Replaces: 8.01.507


## RELATED MEDICAL POLICIES:

2.01.91 Peroral Endoscopic Myotomy for Treatment of Esophageal Achalasia

7.01.50 Placental and Umbilical Cord Blood as a Source of Stem Cells

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[POLICY CRITERIA](#) | [DOCUMENTATION REQUIREMENTS](#) | [CODING](#)  
[RELATED INFORMATION](#) | [EVIDENCE REVIEW](#) | [REFERENCES](#) | [HISTORY](#)

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## Introduction

Plasma cells are a special type of white blood cell. They are made in the bone marrow, and they make antibodies to fight viral and bacterial infections. Multiple myeloma and POEMS syndrome are two types of bone marrow cancer that affect the plasma cells. These cancers may be treated with various medications and chemotherapy. Sometimes a person may be given a very high dose of chemotherapy followed by a hematopoietic cell transplant. This policy describes when a hematopoietic cell transplant may be medically necessary as part of the treatment of multiple myeloma and POEMS syndrome.

**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

Transplant	Medical Necessity
<b>Multiple Myeloma</b>	
<b>A single or second (salvage) autologous hematopoietic cell transplantation</b>	<b>A single or second (salvage) autologous hematopoietic cell transplantation may be considered medically necessary to treat multiple myeloma.</b>
<b>Tandem autologous hematopoietic cell transplantation</b>	<p><b>Tandem autologous hematopoietic cell transplantation may be considered medically necessary to treat multiple myeloma in patients who fail to achieve at least a near-complete or very good partial response after the first transplant in the tandem sequence.</b></p> <p><b>Tandem transplantation with an initial round of autologous hematopoietic cell transplantation followed by a non-marrow-ablative conditioning regimen and allogeneic hematopoietic cell transplantation (ie, reduced-intensity conditioning transplant) may be considered medically necessary to treat newly diagnosed multiple myeloma patients.</b></p>
<b>POEMS Syndrome</b>	
<b>Autologous hematopoietic cell transplantation</b>	<b>Autologous hematopoietic cell transplantation may be considered medically necessary to treat disseminated POEMS syndrome (see <a href="#">Additional Information</a> below).</b>

Transplant	Investigational
<b>Multiple Myeloma</b>	
<b>Allogeneic hematopoietic cell transplantation</b>	<b>Allogeneic hematopoietic cell transplantation, myeloablative or nonmyeloablative, as upfront therapy of newly diagnosed multiple myeloma or as salvage therapy, is considered investigational.</b>
<b>POEMS Syndrome</b>	
<b>Allogeneic and tandem hematopoietic cell transplantation</b>	<b>Allogeneic and tandem hematopoietic cell transplantation are considered investigational to treat POEMS syndrome.</b>

<b>Additional Information</b>
<ul style="list-style-type: none"> <li>The International Working Group on Myeloma has updated the European Group for Blood and</li> </ul>



## Additional Information

Marrow Transplant criteria to describe a complete response to multiple myeloma therapy. The criteria include negative immunofixation on the serum and urine; disappearance of soft tissue plasmacytomas; and 5% or fewer plasma cells in bone marrow aspiration.

- Patients with disseminated POEMS syndrome may have diffuse sclerotic lesions or disseminated bone marrow involvement.

## Documentation Requirements

**The patient'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
- Prior treatment (if any) patient has received

## Coding

Code	Description
<b>CPT</b>	
38204	Management of recipient hematopoietic progenitor cell donor search and cell acquisition
38205	Blood derived hematopoietic progenitor cell harvesting for transplantation, per collection; allogeneic
38206	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; autologous
38207	Transplant preparation of hematopoietic progenitor cells; cryopreservation and storage
38208	Transplant preparation of hematopoietic progenitor cells; thawing of previously frozen harvest, without washing, per donor
38209	Transplant preparation of hematopoietic progenitor cells; thawing of previously frozen harvest, with washing, per donor
38210	Transplant preparation of hematopoietic progenitor cells; specific cell depletion within harvest, T-cell depletion
38211	Transplant preparation of hematopoietic progenitor cells; tumor cell depletion
38212	Transplant preparation of hematopoietic progenitor cells; red blood cell removal



Code	Description
38213	Transplant preparation of hematopoietic progenitor cells; platelet depletion
38214	Transplant preparation of hematopoietic progenitor cells; plasma (volume) depletion
38215	Transplant preparation of hematopoietic progenitor cells; cell concentration in plasma, mononuclear, or buffy coat layer
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
38242	Allogeneic lymphocyte infusions
HCPCS	
S2140	Cord blood harvesting for transplantation, allogeneic
S2142	Cord blood derived stem cell transplantation, allogeneic
S2150	Bone marrow or blood-derived 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

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## Related Information

N/A

## Evidence Review



## Description

Multiple myeloma (MM) is a systemic malignancy of plasma cells that represents approximately 10% of all hematologic cancers. POEMS syndrome, characterized by polyneuropathy, organomegaly, endocrinopathy, M protein, and skin changes, is a rare, paraneoplastic disorder secondary to a plasma cell dyscrasia. Plasma cell dyscrasias are treatable but rarely curable. In some cases, hematopoietic cell transplantation (HCT) is considered as therapy.

## Background

### *Multiple Myeloma*

MM is a systemic malignancy of plasma cells that represents approximately 10% of all hematologic cancers. It is treatable but rarely curable. At diagnosis, most patients have generalized disease, and the selection of treatment is influenced by patient age, general health, prior therapy, and the presence of disease complications.<sup>1-3</sup>

The disease is staged by estimating tumor mass, based on various clinical parameters such as hemoglobin, serum calcium, number of lytic bone lesions, and the presence or absence of renal failure. MM usually evolves from an asymptomatic premalignant stage (termed monoclonal gammopathy of undetermined significance). Treatment is usually reserved for patients with symptomatic disease (usually progressive myeloma), whereas asymptomatic patients are observed because there is little evidence that early treatment of asymptomatic MM prolongs survival when compared with therapy delivered at the time of symptoms or end-organ damage.<sup>1,2</sup> In some patients, an intermediate asymptomatic but more advanced premalignant stage is recognized and referred to as smoldering MM. The overall risk of disease progression from smoldering to symptomatic MM is 10% per year for the first 5 years, approximately 3% per year for the next 5 years, and 1% for the next 10 years.<sup>1,2</sup>

### *POEMS Syndrome*

POEMS syndrome (also known as osteosclerotic myeloma, Crow-Fukase syndrome, or Takatsuki syndrome) is a rare, paraneoplastic disorder secondary to a plasma-cell dyscrasia.<sup>4,5</sup> This complex, multiorgan disease was first described in 1938, but the acronym POEMS was coined in 1980, reflecting hallmark characteristics of the syndrome: polyneuropathy, organomegaly, endocrinopathy, M protein, and skin changes.<sup>6</sup> No single test establishes the presence of POEMS syndrome. Its pathogenesis is undefined, although some evidence has suggested it is mediated



by an imbalance of proinflammatory cytokines including interleukin (IL)-1 $\beta$ , IL-6, and tumor necrosis factor- $\alpha$ ; vascular endothelial growth factor may also be involved.<sup>5,7</sup> However, specific criteria have been established, and the syndrome may entail other findings in the constellation of signs and symptoms, as shown in **Table 1**. Both major criteria and at least 1 of the minor criteria are necessary for diagnosis.<sup>7</sup>

**Table 1: Criteria and Associations for POEMS Syndrome**

Major Criteria	Minor Criteria	Known Associations	Possible Associations
<b>Polyneuropathy</b>			
	Sclerotic bone lesions	Clubbing	Pulmonary hypertension
<b>Monoclonal plasma-proliferative disorder</b>			
	Castleman disease	Weight loss	Restrictive lung disease
	Organomegaly (splenomegaly, hepatomegaly, or lymphadenopathy)	Thrombocytosis	Thrombotic diatheses
	Edema (edema, pleural effusion, or ascites)	Polycythemia	Arthralgias
	Endocrinopathy (adrenal, thyroid, pituitary, gonadal, parathyroid, pancreatic)	Hyperhidrosis	Cardiomyopathy (systolic dysfunction)
	Skin changes (hyperpigmentation, hypertrichosis, plethora, hemangiomas, white nails)		Fever
	Papilledema		Low vitamin B <sub>12</sub> values
			Diarrhea

The prevalence of POEMS syndrome is unclear. A national survey in Japan showed a prevalence of about 0.3 per 100,000.<sup>8</sup> Other large series had been described in the United States<sup>5,7,9</sup> and India.<sup>10</sup> In general, patients with POEMS have a superior overall survival compared with that of MM (nearly 14 years in a large series).<sup>7</sup> However, given the rarity of POEMS, no randomized controlled trials of therapies have been reported.<sup>11</sup> Numerous approaches have included ionizing radiation, plasmapheresis, intravenous immunoglobulin, interferon- $\alpha$ , corticosteroids, alkylating agents, azathioprine, tamoxifen, transretinoic acid, and high-dose chemotherapy with autologous hematopoietic cell transplantation (HCT) support.<sup>5,7</sup> Optimal treatment involves eliminating the plasma cell clone (eg, by surgical excision or local radiotherapy for an isolated plasmacytoma), or systemic chemotherapy in patients with disseminated disease (eg, medullary



disease or multiple plasmacytomas). Given the underlying plasma cell dyscrasia of POEMS, newer approaches to MM, including bortezomib, lenalidomide, and thalidomide, are also under investigation.<sup>5,12</sup>

HCT is a procedure in which hematopoietic stem cells are infused to restore bone marrow function in cancer patients who receive bone-marrow-toxic doses of cytotoxic 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. Although cord blood is an allogeneic source, the stem cells in it are antigenically “naive” and thus are associated with a lower incidence of rejection or graft-versus-host disease. Cord blood is discussed in greater detail in a separate medical policy (see [Related Policies](#)).

Immunologic compatibility between infused hematopoietic stem cells and the recipient is not an issue in autologous HCT. However, immunologic compatibility between donor and patient is a critical factor for achieving a good outcome of allo-HCT. Compatibility is established by typing of human leukocyte antigen (HLA) using cellular, serologic, or molecular techniques. HLA refers to the tissue type expressed at the HLA-A, -B, and -DR (antigen-D related) loci on each arm of chromosome 6. Depending on the disease being treated, an acceptable donor will match the patient at all or most of the HLA loci (except umbilical cord blood).

## *Conditioning for HCT*

### **Conventional Conditioning**

The conventional (“classical”) practice of allo-HCT involves administration of cytotoxic agents (eg, cyclophosphamide, busulfan) with or without total body irradiation at doses sufficient to destroy endogenous hematopoietic capability in the recipient. The beneficial treatment effect in this procedure is due to a combination of initial eradication of malignant cells and subsequent graft-versus-malignancy effect mediated by non-self-immunologic effector cells that develop after engraftment of allogeneic stem cells within the patient’s bone marrow space. While the slower graft-versus-malignancy effect is considered to be the potentially curative component, it may be overwhelmed by extant disease without the use of pretransplant conditioning. However, intense conditioning regimens are limited to patients who are sufficiently fit medically to tolerate substantial adverse effects that include pre-engraftment opportunistic infections secondary to loss of endogenous bone marrow function and organ damage and failure caused by the cytotoxic drugs. Furthermore, in any allo-HCT, immunosuppressant drugs are required to



minimize graft rejection and graft-versus-host disease, which also increases susceptibility of the patient to opportunistic infections.

The success of autologous HCT is predicated on the ability of cytotoxic chemotherapy with or without radiation to eradicate cancerous cells from the blood and bone marrow. This permits subsequent engraftment and repopulation of bone marrow space with presumably normal hematopoietic cells obtained from the patient before undergoing bone marrow ablation. As a consequence, autologous HCT is typically performed as consolidation therapy when the patient's disease is in complete remission. Patients who undergo autologous HCT are susceptible to chemotherapy-related toxicities and opportunistic infections before engraftment, but not graft-versus-host disease.

### **Reduced-Intensity Conditioning Allo-HCT**

Reduced-intensity conditioning (RIC) refers to the pretransplant use of lower doses or less-intense regimens of cytotoxic drugs or radiation than are used in traditional full-dose myeloablative conditioning treatments. The goal of RIC is to reduce disease burden and to minimize as much as possible associated treatment-related morbidity and non-relapse mortality in the period during which the beneficial graft-versus-malignancy effect of allogeneic transplantation develops. Although the definition of RIC remains arbitrary, with numerous versions employed, all seek to balance the competing effects of non-relapse mortality and relapse due to residual disease. RIC regimens can be viewed as a continuum in effects, from nearly totally myeloablative to minimally myeloablative with lymphoablation, with intensity tailored to specific diseases and patient condition. Patients who undergo RIC with allo-HCT initially demonstrate donor cell engraftment and bone marrow mixed chimerism. Most will subsequently convert to full-donor chimerism, which may be supplemented with donor lymphocyte infusions to eradicate residual malignant cells.

For our purposes, the term reduced-intensity conditioning will refer to all conditioning regimens intended to be non-myeloablative, as opposed to fully myeloablative (traditional) regimens.

### ***MM Treatment Overview***

In the prechemotherapy era, the median survival for a patient diagnosed with MM was approximately 7 months. After the introduction of chemotherapy (eg, the alkylating agent melphalan in the 1960s), prognosis improved, with a median survival of 24 to 30 months and a 10-year survival of 3%. In a large group of patients with newly diagnosed MM, there was no





difference in overall survival reported during a 24-year period from 1971-1994, with a trend toward improvement during 1995-2000, and a statistically significant benefit in overall survival during 2001-2006.<sup>2</sup> These data suggested that autologous HCT was responsible for the trends during 1994-2000, while novel agents have contributed to the improvement since 2001.<sup>2</sup>

The introduction of novel agents and better prognostic indicators has been the major advances in the treatment of this disease.<sup>13,14</sup> Novel agents such as the proteasome inhibitor bortezomib and the immunomodulatory derivatives thalidomide and lenalidomide first showed efficacy in relapsed and refractory myeloma and now have been integrated into first-line regimens.<sup>13-15</sup> With the introduction of these novel treatments, it is now expected that most patients with MM will respond to initial therapy, and only a small minority will have refractory disease.<sup>16</sup>

## Summary of Evidence

### *Newly Diagnosed Multiple Myeloma (MM)*

For individuals who have newly diagnosed multiple myeloma who receive autologous hematopoietic cell transplantation (HCT) as initial treatment, the evidence includes several prospective, randomized controlled trials (RCTs) that compared conventional chemotherapy with high-dose chemotherapy plus autologous HCT. The relevant outcomes include overall survival and treatment-related morbidity. In general, the evidence has suggested overall survival rates are improved with autologous HCT compared with conventional chemotherapy in this setting. Limitations of the published evidence include patient heterogeneity, variability in treatment protocols, short follow-up periods, inconsistency in reporting important health outcomes, and inconsistency in reporting or collecting outcomes. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have newly diagnosed multiple myeloma who receive tandem autologous HCT, the evidence includes several RCTs. The relevant outcomes include overall survival and treatment-related morbidity. Compared with single autologous HCT, a number of RCTs have demonstrated tandem autologous HCT improved overall survival and recurrence-free survival in newly diagnosed multiple myeloma. The available RCTs compare RIC allo-HCT following a first autologous HCT with single or tandem autologous transplants. The RCTs were based on genetic randomization (ie, patients with a human leukocyte antigen-identical sibling who were offered an RIC allo-HCT following autologous HCT), whereas other patients underwent either 1 or 2 autologous transplants. Although the body of evidence has shown inconsistencies in terms of overall survival and disease-free survival rates, some studies have shown a survival benefit with tandem autologous HCT followed by RIC allo-HCT, although at the cost of higher transplant-



related mortality compared with conventional treatments. Factors across studies that may account for differing trial results include different study designs, nonuniform preparative regimens, different patient characteristics (including risk stratification), and criteria for advancing to a second transplant. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have newly diagnosed multiple myeloma who receive allo-HCT with initial or salvage treatment, the evidence includes nonrandomized studies. The relevant outcomes include overall survival and treatment-related morbidity. Studies have reported on patients with both myeloablative conditioning and RIC. Limitations of the published evidence include patient sample heterogeneity, variability in treatment protocols, short follow-up periods, inconsistency in reporting important health outcomes, and inconsistency in reporting or collecting outcomes. Nonmyeloablative allo-HCT as first-line therapy is associated with lower transplant-related mortality but a greater risk of relapse; convincing evidence is lacking that allo-HCT improves survival better than autologous HCT. The evidence is insufficient to determine the effects of the technology on health outcomes.

### ***Relapsed or Refractory Multiple Myeloma***

For individuals who have relapsed MM after failing an autologous HCT who receive autologous HCT, the evidence includes an RCT, a retrospective study, and a systematic review summarizing data from 4 series of patients who relapsed after a first autologous HCT, and a review summarizing recent studies on a second autologous HCT in relapsed myeloma. The relevant outcomes include overall survival and treatment-related morbidity. Despite some limitations of the published evidence, including patient sample heterogeneity, variability in treatment protocols, and short follow-up periods, the available trial evidence has suggested overall survival rates are improved with autologous HCT compared with conventional chemotherapy in this setting. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have refractory MM after failing the first HCT who receive tandem autologous HCT, the evidence includes 3 RCTs and a review. Relevant outcomes include overall survival and treatment-related morbidity. The evidence has shown tandem autologous HCT improves overall survival rates in this setting. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.



## *POEMS Syndrome*

For individuals who have POEMS syndrome who receive HCT, the evidence includes case reports and series. Relevant outcomes include overall survival and treatment-related morbidity. No RCTs of HCT of any type have been performed in patients with POEMS syndrome of any severity, nor is it likely such studies will be performed because of the rarity of this condition. Available case reports and series are subject to selection bias and are heterogeneous concerning treatment approaches and peritransplant support. However, for patients with disseminated POEMS syndrome, a chain of evidence and contextual factors related to the disease and MM would suggest improvement in health outcomes with autologous HCT. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

## Ongoing and Unpublished Clinical Trials

Some currently unpublished trials that might influence this review are listed in [Table 2](#).

**Table 2. Summary of Key Trials**

NCT No.	Trial Name	Planned Enrollment	Completion Date
<b>Ongoing</b>			
<a href="#">NCT01208662</a>	A Randomized Phase III Study Comparing Conventional Dose Treatment Using a Combination of Lenalidomide, Bortezomib, and Dexamethasone (RVD) to High-dose Treatment With Peripheral Stem Cell Transplant in the Initial Management of Myeloma in Patients up to 65 Years of Age	660	Sep 2018
<a href="#">NCT02322320</a>	Continued, Long-Term follow-Up and Lenalidomide Maintenance Therapy for Patients on BMT CTN 0702 (BMT CTN #Q07LT)	450	Dec 2018
<a href="#">NCT00177047</a>	Autologous Transplantation for Multiple Myeloma	363	Jan 2020
<a href="#">NCT01109004</a>	A Trial of Single Autologous Transplant With or Without Consolidation Therapy Versus Tandem Autologous Transplant With Lenalidomide Maintenance for Patients With Multiple Myeloma (BMT CTN 0702)	750	Mar 2018
<a href="#">NCT01191060</a>	Randomized Study Comparing Conventional Dose Treatment Using a Combination of Lenalidomide,	700	Sep 2020



NCT No.	Trial Name	Planned Enrollment	Completion Date
	Bortezomib and Dexamethasone to High-Dose Treatment With ASCT in the Initial Management of Myeloma in Patients up to 65 Years of Age		
<b>NCT01208766</b>	A Randomized Phase III Study to Compare Bortezomib, Melphalan, Prednisone (VMP) With High Dose Melphalan Followed by Bortezomib, Lenalidomide, Dexamethasone (VRD) Consolidation and Lenalidomide Maintenance in Patients With Newly Diagnosed Multiple Myeloma	1500	Apr 2021
<b>Unpublished</b>			
<b>NCT00998270</b>	Autologous Bone Marrow Transplantation (BMT) Compared With Allogeneic BMT in Multiple Myeloma	185	Oct 2017 (unknown)

NCT: national clinical trial.

## Clinical Input from Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

### *2017 Input*

In response to requests, input was received from 1 specialty medical society, 1 academic medical center, and 2 Blue Distinction Centers for Transplant while this policy was under review in 2017. There was consensus that allogeneic hematopoietic cell transplantation (HCT) is investigational for newly diagnosed multiple myeloma and as salvage therapy after primary graft failure and for primary progressive disease.

### *2013 Input*

In response to requests, input was received from 3 academic medical centers and 6 Blue Distinction Centers for Transplant while this policy was under review in 2013. There was near-



consensus that autologous HCT is medically necessary for POEMS syndrome, and near-consensus that allogeneic and tandem HCT are investigational for POEMS syndrome.

## ***2010 Input***

In response to requests, input was received from 2 academic medical centers while this policy was under review in 2010. One reviewer agreed with the current policy statement related to tandem autologous HCT followed by reduced-intensity conditioning allogeneic HCT and the other disagreed. Those providing input agreed with the other policy statements. (The conclusion that allogeneic HCT is investigational for salvage therapy was a late addition to the policy and was not sent for clinical input.)

## **Practice Guidelines and Position Statements**

### ***American Society for Blood and Marrow Transplantation***

The American Society for Blood and Marrow Transplantation (ASBMT) (2015) published evidence-based guidelines on the use of HCT in patients with multiple myeloma (MM).<sup>63</sup> ASBMT recognized that much of the evidence from randomized controlled trials summarized in the 2015 guidelines came from trials that predated the novel triple-therapy induction regimens. Furthermore, advances in supportive care and earlier disease detection have increasingly influenced decision making and allow individual tailoring of therapy. ASBMT guidelines did not address POEMS or other plasma cell dyscrasias besides MM.

The ASBMT, and 3 other groups (2015) published joint guidelines based on an expert consensus conference.<sup>64</sup> These guidelines contained the following recommendations for HCT as salvage therapy:

... autologous HCT: (1) In transplantation-eligible patients relapsing after primary therapy that did NOT include an autologous HCT, high-dose therapy with HCT as part of salvage therapy should be considered standard; (2) High-dose therapy and autologous HCT should be considered appropriate therapy for any patients relapsing after primary therapy that includes an autologous HCT with initial remission duration of more than 18 months; (3) High-dose therapy and autologous HCT can be used as bridging strategy to allogeneic HCT; (4) The role of postsalvage HCT maintenance needs to be explored in the context of well-designed prospective trials that should include new agents, such as monoclonal antibodies, immune-modulating agents, and oral proteasome inhibitors; (5) Autologous HCT



consolidation should be explored as a strategy to develop novel conditioning regimens or post-HCT strategies in patients with short remission (less than 18 months remissions) after primary therapy and (6) Prospective randomized trials need to be performed to define the role of salvage autologous HCT in patients with MM [multiple myeloma] relapsing after primary therapy comparing to 'best non-HCT' therapy.

Regarding allogeneic HCT... (1) Allogeneic HCT should be considered appropriate therapy for any eligible patient with early relapse (less than 24 months) after primary therapy that included an autologous HCT and/or with high-risk features (ie, cytogenetics, extramedullary disease, plasma cell leukemia, or high lactate dehydrogenase); (2) Allogeneic HCT should be performed in the context of a clinical trial if possible; (3) The role of post allogeneic HCT maintenance therapy needs to be explored in the context of well-designed prospective trials; and (4) Prospective randomized trials need to be performed to define the role of salvage allogeneic HCT in patients with MM relapsing after primary therapy.

### ***International Myeloma Working Group***

The 2010 conclusions and recommendations of the International Myeloma Working Group consensus statement on the current status of allogeneic HCT (allo-HCT) for MM are as follows: Myeloablative allogeneic HCT may cure a minority of patients but is associated with a high transplant-related mortality, but could be evaluated in well-designed prospective clinical trials.<sup>65</sup> Nonmyeloablative allo-HCT as first-line therapy is associated with lower transplant-related mortality but a greater risk of relapse, and convincing evidence is lacking that allo-HCT improves survival compared with autologous HCT.

### ***National Comprehensive Cancer Network***

#### **Autologous HCT**

The National Comprehensive Cancer Network (NCCN) guidelines (v.3.2018) consider autologous HCT a category 1 recommendation as follow-up to induction therapy for newly diagnosed MM and as a category 1 recommendation for relapsed or progressive disease if the patient is considered a transplant candidate.<sup>66</sup>



## **Tandem HCT**

The NCCN recommends collecting enough stem cells for 2 transplants in all eligible patients.<sup>66</sup>

## **Allo-HCT**

The NCCN recommends the following for allo-HCT: “Allogeneic stem cell transplant may include nonmyeloablative (mini) following autologous stem cell transplant or fully myeloablative, preferably on a clinical trial. Current data do not support miniallografting alone” (category 2A).<sup>66</sup>

## **POEMS Syndrome**

The NCCN guidelines do not address the treatment of POEMS syndrome.<sup>66</sup>

## **Medicare National Coverage**

Medicare has the following national coverage determination for the use of HCT for MM.<sup>67</sup>

“Effective ... January ... 2016, allogeneic HSCT [hematopoietic stem cell transplantation] for multiple myeloma is covered by Medicare only for beneficiaries with Durie-Salmon Stage II or III multiple myeloma, or International Staging System (ISS) Stage II or Stage III multiple myeloma, and participating in an approved prospective clinical study that meets the criteria below. There must be appropriate statistical techniques to control for selection bias and confounding by age, duration of diagnosis, disease classification, International Myeloma Working Group (IMWG) classification, ISS stage, comorbid conditions, type of preparative/conditioning regimen, graft vs. host disease (GVHD) prophylaxis, donor type and cell source.

A prospective clinical study seeking Medicare coverage for allogeneic HSCT for multiple myeloma pursuant to CED must address the following question:

Compared to patients who do not receive allogeneic HSCT, do Medicare beneficiaries with multiple myeloma who receive allogeneic HSCT have improved outcomes as indicated by:

- Graft vs. host disease (acute and chronic);
- Other transplant-related adverse events;
- Overall survival; and



- (optional) Quality of life?"

## Regulatory Status

The U.S. 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.

## References

1. Kyle RA, Rajkumar SV. Multiple myeloma. *Blood*. Mar 15 2008;111(6):2962-2972. PMID 18332230
2. Palumbo A, Rajkumar SV. Treatment of newly diagnosed myeloma. *Leukemia*. Mar 2009;23(3):449-456. PMID 19005483
3. Durie BG, Harousseau JL, Miguel JS, et al. International uniform response criteria for multiple myeloma. *Leukemia*. Sep 2006;20(9):1467-1473. PMID 16855634
4. Dispenzieri A. Long-term outcomes after autologous stem cell transplantation in patients with POEMS syndrome. *Clin Adv Hematol Oncol*. Nov 2012;10(11):744-746. PMID 23271262
5. Dispenzieri A. POEMS syndrome: update on diagnosis, risk-stratification, and management. *Am J Hematol*. Aug 2012;87(8):804-814. PMID 22806697
6. Bardwick PA, Zvaifler NJ, Gill GN, et al. Plasma cell dyscrasia with polyneuropathy, organomegaly, endocrinopathy, M protein, and skin changes: the POEMS syndrome. Report on two cases and a review of the literature. *Medicine (Baltimore)*. Jul 1980;59(4):311-322. PMID 6248720
7. Dispenzieri A, Kyle RA, Lacy MQ, et al. POEMS syndrome: definitions and long-term outcome. *Blood*. Apr 1 2003;101(7):2496-2506. PMID 12456500
8. Nasu S, Misawa S, Sekiguchi Y, et al. Different neurological and physiological profiles in POEMS syndrome and chronic inflammatory demyelinating polyneuropathy. *J Neurol Neurosurg Psychiatry*. May 2012;83(5):476-479. PMID 22338030
9. Dispenzieri A, Moreno-Aspitia A, Suarez GA, et al. Peripheral blood stem cell transplantation in 16 patients with POEMS syndrome, and a review of the literature. *Blood*. Nov 15 2004;104(10):3400-3407. PMID 15280195
10. Singh D, Wadhwa J, Kumar L, et al. POEMS syndrome: experience with fourteen cases. *Leuk Lymphoma*. Oct 2003;44(10):1749-1752. PMID 14692529
11. Kuwabara S, Dispenzieri A, Arimura K, et al. Treatment for POEMS (polyneuropathy, organomegaly, endocrinopathy, M-protein, and skin changes) syndrome. *Cochrane Database Syst Rev*. Jun 13 2012;6(6):CD006828. PMID 22696361
12. Dispenzieri A. How I treat POEMS syndrome. *Blood*. Jun 14 2012;119(24):5650-5658. PMID 22547581
13. Reece DE. Recent trends in the management of newly diagnosed multiple myeloma. *Curr Opin Hematol*. Jul 2009;16(4):306-312. PMID 19491669





14. Reece D HJ, Gertz MA. Myeloma Management 2009: Nontransplant therapy of myeloma, high-dose therapy for myeloma, and a personalized care plan for treatment of myeloma. 2009 American Society of Clinical Oncology Annual Meeting Educational Handbook. 2009:502-509.
15. Qiao SK, Guo XN, Ren JH, et al. Efficacy and safety of lenalidomide in the treatment of multiple myeloma: a systematic review and meta-analysis of randomized controlled trials. *Chin Med J (Engl)*. May 5 2015;128(9):1215-1222. PMID 25947406
16. Fonseca R. Strategies for risk-adapted therapy in myeloma. *Hematology Am Soc Hematol Educ Program*. Nov 2007:304-310. PMID 18024644
17. Rajkumar SV. Multiple myeloma: 2011 update on diagnosis, risk-stratification, and management. *Am J Hematol*. Jan 2011;86(1):57-65. PMID 21181954
18. Larocca A, Palumbo A. Evolving paradigms in the treatment of newly diagnosed multiple myeloma. *J Natl Compr Canc Netw*. Oct 2011;9(10):1186-1196. PMID 21975915
19. van de Donk NW, Lokhorst HM, Dimopoulos M, et al. Treatment of relapsed and refractory multiple myeloma in the era of novel agents. *Cancer Treat Rev*. Jun 2011;37(4):266-283. PMID 20863623
20. Nishihori T, Alsina M. Advances in the autologous and allogeneic transplantation strategies for multiple myeloma. *Cancer Control*. Oct 2011;18(4):258-267. PMID 21976244
21. Dunavin NC, Wei L, Elder P, et al. Early versus delayed autologous stem cell transplant in patients receiving novel therapies for multiple myeloma. *Leuk Lymphoma*. Aug 2013;54(8):1658-1664. PMID 23194056
22. Gay F, Oliva S, Petrucci MT, et al. Chemotherapy plus lenalidomide versus autologous transplantation, followed by lenalidomide plus prednisone versus lenalidomide maintenance, in patients with multiple myeloma: a randomised, multicentre, phase 3 trial. *Lancet Oncol*. Dec 2015;16(16):1617-1629. PMID 26596670
23. Attal M, Harousseau JL. The role of high-dose therapy with autologous stem cell support in the era of novel agents. *Semin Hematol*. Apr 2009;46(2):127-132. PMID 19389496
24. Attal M, Harousseau JL, Stoppa AM, et al. A prospective, randomized trial of autologous bone marrow transplantation and chemotherapy in multiple myeloma. *Intergroupe Francais du Myelome*. *N Engl J Med*. Jul 11 1996;335(2):91-97. PMID 8649495
25. Barlogie B, Kyle RA, Anderson KC, et al. Standard chemotherapy compared with high-dose chemoradiotherapy for multiple myeloma: final results of phase III US Intergroup Trial S9321. *J Clin Oncol*. Feb 20 2006;24(6):929-936. PMID 16432076
26. Blade J, Rosinol L, Sureda A, et al. High-dose therapy intensification compared with continued standard chemotherapy in multiple myeloma patients responding to the initial chemotherapy: long-term results from a prospective randomized trial from the Spanish cooperative group PETHEMA. *Blood*. Dec 1 2005;106(12):3755-3759. PMID 16105975
27. Child JA, Morgan GJ, Davies FE, et al. High-dose chemotherapy with hematopoietic stem-cell rescue for multiple myeloma. *N Engl J Med*. May 8 2003;348(19):1875-1883. PMID 12736280
28. Fermand JP, Ravaud P, Chevret S, et al. High-dose therapy and autologous peripheral blood stem cell transplantation in multiple myeloma: up-front or rescue treatment? Results of a multicenter sequential randomized clinical trial. *Blood*. Nov 1 1998;92(9):3131-3136. PMID 9787148
29. Palumbo A, Bringhen S, Petrucci MT, et al. Intermediate-dose melphalan improves survival of myeloma patients aged 50 to 70: results of a randomized controlled trial. *Blood*. Nov 15 2004;104(10):3052-3057. PMID 15265788
30. Koreth J, Cutler CS, Djulbegovic B, et al. High-dose therapy with single autologous transplantation versus chemotherapy for newly diagnosed multiple myeloma: A systematic review and meta-analysis of randomized controlled trials. *Biol Blood Marrow Transplant*. Feb 2007;13(2):183-196. PMID 17241924
31. Attal M, Harousseau JL, Facon T, et al. Single versus double autologous stem-cell transplantation for multiple myeloma. *N Engl J Med*. Dec 25 2003;349(26):2495-2502. PMID 14695409
32. Stadtmauer EA. Multiple myeloma, 2004--one or two transplants? [editorial]. *N Engl J Med*. Dec 25 2003;349(26):2551-2553. PMID 14695416



33. Cavo M, Tosi P, Zamagni E, et al. Prospective, randomized study of single compared with double autologous stem-cell transplantation for multiple myeloma: Bologna 96 clinical study. *J Clin Oncol*. Jun 10 2007;25(17):2434-2441. PMID 17485707
34. Maffini E, Storer BE, Sandmaier BM, et al. Long term follow-up of tandem autologous-allogeneic hematopoietic cell transplantation for multiple myeloma. *Haematologica*. Sep 27 2018. PMID 30262560
35. Garban F, Attal M, Michallet M, et al. Prospective comparison of autologous stem cell transplantation followed by dose-reduced allograft (IFM99-03 trial) with tandem autologous stem cell transplantation (IFM99-04 trial) in high-risk de novo multiple myeloma. *Blood*. May 1 2006;107(9):3474-3480. PMID 16397129
36. Moreau P, Garban F, Attal M, et al. Long-term follow-up results of IFM99-03 and IFM99-04 trials comparing nonmyeloablative allotransplantation with autologous transplantation in high-risk de novo multiple myeloma. *Blood*. Nov 1 2008;112(9):3914-3915. PMID 18948589
37. Bruno B, Rotta M, Patriarca F, et al. A comparison of allografting with autografting for newly diagnosed myeloma. *N Engl J Med*. Mar 15 2007;356(11):1110-1120. PMID 17360989
38. Rosinol L, Perez-Simon JA, Sureda A, et al. A prospective PETHEMA study of tandem autologous transplantation versus autograft followed by reduced-intensity conditioning allogeneic transplantation in newly diagnosed multiple myeloma. *Blood*. Nov 1 2008;112(9):3591-3593. PMID 18612103
39. Lokhorst H, Mutis I. Allogeneic transplantation and immune interventions in multiple myeloma [abstract]. *Hematol Educ*. 2008;2:106-114.
40. Bjorkstrand B, Iacobelli S, Hegenbart U, et al. Autologous stem cell transplantation (ASCT) versus ASCT followed by reduced-intensity conditioning allogeneic SCT with identical sibling donor in previously untreated multiple myeloma: preliminary analysis of a prospective controlled trial by the EBMT [abstract]. *Bone Marrow Transplant*. 2008;41:S38.
41. Gahrton G, Iacobelli S, Bjorkstrand B, et al. Autologous/reduced-intensity allogeneic stem cell transplantation vs autologous transplantation in multiple myeloma: long-term results of the EBMT-NMAM2000 study. *Blood*. Jun 20 2013;121(25):5055-5063. PMID 23482933
42. Krishnan A, Pasquini MC, Logan B, et al. Autologous haemopoietic stem-cell transplantation followed by allogeneic or autologous haemopoietic stem-cell transplantation in patients with multiple myeloma (BMT CTN 0102): a phase 3 biological assignment trial. *Lancet Oncol*. Dec 2011;12(13):1195-1203. PMID 21962393
43. Haraeus JL. The allogeneic dilemma. *Bone Marrow Transplant*. Dec 2007;40(12):1123-1128. PMID 17680016
44. Crawley C, Iacobelli S, Bjorkstrand B, et al. Reduced-intensity conditioning for myeloma: lower nonrelapse mortality but higher relapse rates compared with myeloablative conditioning. *Blood*. Apr 15 2007;109(8):3588-3594. PMID 17158231
45. Gahrton G, Bjorkstrand B. Allogeneic transplantation in multiple myeloma. *Haematologica*. Sep 2008;93(9):1295-1300. PMID 18757850
46. Giralt S, Koehne G. Allogeneic hematopoietic stem cell transplantation for multiple myeloma: what place, if any? *Curr Hematol Malig Rep*. Dec 2013;8(4):284-290. PMID 24146203
47. Giralt S, Costa L, Schriber J, et al. Optimizing autologous stem cell mobilization strategies to improve patient outcomes: consensus guidelines and recommendations. *Biol Blood Marrow Transplant*. Mar 2014;20(3):295-308. PMID 24141007
48. Olin RL, Vogl DT, Porter DL, et al. Second auto-SCT is safe and effective salvage therapy for relapsed multiple myeloma. *Bone Marrow Transplant*. Mar 2009;43(5):417-422. PMID 18850013
49. Cook G, Williams C, Brown JM, et al. High-dose chemotherapy plus autologous stem-cell transplantation as consolidation therapy in patients with relapsed multiple myeloma after previous autologous stem-cell transplantation (NCRI Myeloma X Relapse [Intensive trial]): a randomised, open-label, phase 3 trial. *Lancet Oncol*. Jul 2014;15(8):874-885. PMID 24948586
50. Cook G, Ashcroft AJ, Cairns DA, et al. The effect of salvage autologous stem-cell transplantation on overall survival in patients with relapsed multiple myeloma (final results from BSBMT/UKMF Myeloma X Relapse [Intensive]): a randomised, open-label, phase 3 trial. *Lancet Haematol*. Jul 2016;3(7):e340-351. PMID 27374467



51. Michaelis LC, Saad A, Zhong X, et al. Salvage second hematopoietic cell transplantation in myeloma. *Biol Blood Marrow Transplant.* May 2013;19(5):760-766. PMID 23298856
52. Ziogas DC, Terpos E, Dimopoulos MA. When to recommend a second autograft in patients with relapsed myeloma? *Leuk Lymphoma.* Apr 2017;58(4):781-787. PMID 27894207
53. Hahn T, Wingard JR, Anderson KC, et al. The role of cytotoxic therapy with hematopoietic stem cell transplantation in the therapy of multiple myeloma: an evidence-based review. *Biol Blood Marrow Transplant.* Jan 2003;9(1):4-37. PMID 12533739
54. McCarthy PL, Holstein SA. Role of stem cell transplant and maintenance therapy in plasma cell disorders. *Hematology Am Soc Hematol Educ Program.* Dec 2 2016;2016(1):504-511. PMID 27913522
55. Qazilbash MH, Saliba R, De Lima M, et al. Second autologous or allogeneic transplantation after the failure of first autograft in patients with multiple myeloma. *Cancer.* Mar 1 2006;106(5):1084-1089. PMID 16456814
56. Auner HW, Szydlo R, van Biezen A, et al. Reduced intensity-conditioned allogeneic stem cell transplantation for multiple myeloma relapsing or progressing after autologous transplantation: a study by the European Group for Blood and Marrow Transplantation. *Bone Marrow Transplant.* Nov 2013;48(11):1395-1400. PMID 23708704
57. 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.* Jul 2017;31(7). PMID 28470884
58. 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.* Apr 2017;58(4):797-808. PMID 27650125
59. Autore F, Innocenti I, Luigetti M, et al. Autologous peripheral blood stem cell transplantation and the role of lenalidomide in patients affected by pooms syndrome. *Hematol Oncol.* Sep 15 2017. PMID 28913957
60. D'Souza A, Lacy M, Gertz M, et al. Long-term outcomes after autologous stem cell transplantation for patients with POEMS syndrome (osteosclerotic myeloma): a single-center experience. *Blood.* Jul 5 2012;120(1):56-62. PMID 22611150
61. Jang IY, Yoon DH, Kim S, et al. Advanced POEMS syndrome treated with high-dose melphalan followed by autologous blood stem cell transplantation: a single-center experience. *Blood Res.* Mar 2014;49(1):42-48. PMID 24724066
62. 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. *Haematologica.* Jan 2017;102(1):160-167. PMID 27634201
63. Shah N, Callander N, Ganguly S, et al. Hematopoietic stem cell transplantation for multiple myeloma: guidelines from the American Society for Blood and Marrow Transplantation. *Biol Blood Marrow Transplant.* Jul 2015;21(7):1155-1166. PMID 25769794
64. Giralt S, Garderet L, Durie B, et al. American Society of Blood and Marrow Transplantation, European Society of Blood and Marrow Transplantation, Blood and Marrow Transplant Clinical Trials Network, and International Myeloma Working Group consensus conference on salvage hematopoietic cell transplantation in patients with relapsed multiple myeloma. *Biol Blood Marrow Transplant.* Dec 2015;21(12):2039-2051. PMID 26428082
65. Lokhorst H, Einsele H, Vesole D, et al. International Myeloma Working Group consensus statement regarding the current status of allogeneic stem-cell transplantation for multiple myeloma. *J Clin Oncol.* Oct 10 2010;28(29):4521-4530. PMID 20697091
66. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Multiple Myeloma. Version 3.2018. [https://www.nccn.org/professionals/physician\\_gls/pdf/myeloma.pdf](https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf) Accessed March 2019.
67. Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) for Stem Cell Transplantation (Formerly 110.8.1) (110.23). 2016; [https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=366&ncdver=1&DocID=110.23&list\\_type=ncd&bc=gAAAAAgAAAAAA%3d%3d&](https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=366&ncdver=1&DocID=110.23&list_type=ncd&bc=gAAAAAgAAAAAA%3d%3d&) Accessed March 2019.



## History

Date	Comments
06/12/12	New policy, add to Therapy section. Policy replaces 8.01.507.
09/10/12	Update coding section – ICD-10 codes are now effective 10/01/2014.
11/15/12	Reviewed and recommended by OAP, November 2012.
02/01/13	Update Related Policies, change title of policy 8.01.21.
02/12/13	Update Related Policies, change title of policy 8.02.02.
03/20/13	The following codes were removed from the policy, as they were not suspending and just informational: HCPCS J9000-J9999 and Q0083 – Q0085.
07/25/13	Update Related Policies. Change title to 8.01.35, and add 8.01.520.
10/14/13	Replace policy. Policy title changed. Policy updated with literature search through mid-March 2013; no change in multiple myeloma policy statements. POEMS syndrome added, with a medically necessary statement for autologous HCT for disseminated disease; allogeneic and tandem HCT for POEMS are investigational. Reference numbers 1, 6-9, 43 were removed, references 3-11, 47 were added and all were renumbered.
11/20/13	Update Related Policies. Add 2.01.91, and removed 8.01.31 as it was archived.
02/27/14	Update Related Policies. Change title to 8.01.29 and 8.01.30.
03/21/14	Update Related Policies. Add 8.01.15 and delete 8.01.514.
04/18/14	Update Related Policies. Delete 8.01.20 and add 8.01.529.
06/24/14	Update Related Policies. Delete 8.01.42 and add 8.01.530
11/20/14	Annual Review. Policy updated with literature review through June 15, 2014; no change in policy statements. Reference numbers 2 and 3 were removed; numbers 1, 32, 42, 47, 48, and 50 were added. ICD-9 and ICD-10 diagnosis and procedure codes removed; they do not related to adjudication of the policy.
10/13/15	Annual Review. Policy updated with literature review through July 14, 2015; references 2-3 were removed, references 16, 32, and 54 were added. Policy statements unchanged. Coding update: CPT codes 38320-21 and 86812-16, 86821-22 removed; these are informational and not reviewed in the scope of this policy.
08/01/16	Annual Review, approved July 12, 2016. No changes to policy statement.
01/01/17	Interim Review, approved December 13, 2016. Policy paragraphs restructured and wording edited for more specific restrictions of HCST for POEMS to autologous transplant only and excluding allogeneic including RIC allogeneic, RIC autologous, and



Date	Comments
	tandem transplantations. HCT for myeloma clarified to explicitly require induction chemotherapy achieving partial response or better prior to HCT for initial treatment sequence. Remainder of policy statements unchanged.
04/01/17	Annual Review, approved March 14, 2017. Policy updated with literature review through July 13, 2016 and results of clinical input; references 21, 48, and 55 added; reference 59 updated. Policy statements became less restrictive in regards to treatment of multiple myeloma.
06/09/17	Coding update; updated description for CPT codes 38230, 38240, and 38241.
10/24/17	Policy moved to new format; no change to policy statements.
04/01/18	Annual Review, approved March 20, 2018. Policy updated with literature review through November 2017; references 21, 50-51, 53, 56-58, 61, and 68 added; reference 67 updated. Policy statements unchanged.
11/01/18	Minor update, removed 8.02.02 from related policies as it was archived.
01/15/19	Minor update, removed 12.04.97 from Related Policies as it was archived.
04/01/19	Annual Review, approved March 5, 2019. Policy updated with literature review through November 2018; reference 34 added. Policy statements unchanged.

**Disclaimer:** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2019 Premera All Rights Reserved.

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**Questo avviso contiene informazioni importanti.** Questo avviso può contenere informazioni importanti sulla tua domanda o copertura attraverso Premera Blue Cross. Potrebbero esserci date chiave in questo avviso. Potrebbe essere necessario un tuo intervento entro una scadenza determinata per consentirti di mantenere la tua copertura o sovvenzione. Hai il diritto di ottenere queste informazioni e assistenza nella tua lingua gratuitamente. Chiama 800-722-1471 (TTY: 800-842-5357).

**日本語 (Japanese):**

この通知には重要な情報が含まれています。この通知には、Premera Blue Cross の申請または補償範囲に関する重要な情報が含まれている場合があります。この通知に記載されている可能性がある重要な日付をご確認ください。健康保険や有料サポートを維持するには、特定の期日までに行動を取らなければならない場合があります。ご希望の言語による情報とサポートが無料で提供されます。800-722-1471 (TTY: 800-842-5357)までお電話ください。

**한국어 (Korean):**

본 통지서에는 중요한 정보가 들어 있습니다. 즉 이 통지서는 귀하의 신청에 관하여 그리고 Premera Blue Cross 를 통한 커버리지에 관한 정보를 포함하고 있을 수 있습니다. 본 통지서에는 핵심이 되는 날짜들이 있을 수 있습니다. 귀하의 귀하의 건강 커버리지를 계속 유지하거나 비용을 절감하기 위해서 일정한 마감일까지 조치를 취해야 할 필요가 있을 수 있습니다. 귀하의 이러한 정보와 도움을 귀하의 언어로 비용 부담없이 얻을 수 있는 권리가 있습니다. 800-722-1471 (TTY: 800-842-5357) 로 전화하십시오.

**ລາວ (Lao):**

ແຈງການນີ້ມີຂໍ້ມູນສໍາຄັນ. ແຈງການນີ້ອາດຈະມີຂໍ້ມູນສໍາຄັນກ່ຽວກັບຄໍາຮ້ອງສະໝັກ ຫຼື ຄວາມຄົມຄອງປະກັນໄພຂອງທ່ານຜ່ານ Premera Blue Cross. ອາດຈະມີວັນທີ່ສໍາຄັນໃນແຈງການນີ້. ທ່ານອາດຈະຈໍາເປັນຕ້ອງດໍາເນີນການຕາມກຳນົດ ເວລາສະເພາະເພື່ອຮັກສາຄວາມຄົມຄອງປະກັນສະພາບ ຫຼື ຄວາມຊ່ວຍເຫຼືອເວັ້ນເວົ້ອງຄ່າໃຊ້ຈ່າຍຂອງທ່ານໄດ້. ທ່ານມີສິດໄດ້ຮັບຂໍ້ມູນນີ້ ແລະ ຄວາມຊ່ວຍເຫຼືອເປັນພາສາຂອງທ່ານໂດຍບໍ່ເສຍຄ່າ. ໃຫ້ໃບທາ 800-722-1471 (TTY: 800-842-5357).

**ភាសាខ្មែរ (Khmer):**

សេចក្តីជូនដំណឹងនេះមានព័ត៌មានយ៉ាងសំខាន់។ សេចក្តីជូនដំណឹងនេះប្រហែលជាមានព័ត៌មានយ៉ាងសំខាន់អំពីទម្រង់បែបបទ ឬការរៀបចំរបស់អ្នកកាមរយ: Premera Blue Cross ។ ប្រហែលជាមាន កាលបរិច្ឆេទសំខាន់នៅក្នុងសេចក្តីជូនដំណឹងនេះ។ អ្នកប្រហែលជាត្រូវការបញ្ជាក់សមត្ថភាព ដល់កិច្ចការផ្ទៃក្នុងរបស់នានា ដើម្បីនឹងរក្សាទុកការធានារ៉ាប់រងអនាគតរបស់អ្នក ឬប្រាក់ដុល្លារចេញផ្លូវ។ អ្នកមានសិទ្ធិទទួលបានព័ត៌មាននេះ និងដុល្លារនៅក្នុងភាសារបស់អ្នកដោយមិនអស់លុយឡើយ។ សូមទូរស័ព្ទ 800-722-1471 (TTY: 800-842-5357)។

**ਪੰਜਾਬੀ (Punjabi):**

ਇਸ ਨੋਟਿਸ ਵਿਚ ਖਾਸ ਜਾਣਕਾਰੀ ਹੈ. ਇਸ ਨੋਟਿਸ ਵਿਚ Premera Blue Cross ਵਲੋਂ ਤੁਹਾਡੀ ਕਵਰੇਜ ਅਤੇ ਅਰਜੀ ਬਾਰੇ ਮਹੱਤਵਪੂਰਨ ਜਾਣਕਾਰੀ ਹੋ ਸਕਦੀ ਹੈ . ਇਸ ਨੋਟਿਸ ਨਵ ਖਾਸ ਤਾਰੀਖਾਂ ਹੋ ਸਕਦੀਆਂ ਹਨ. ਜੇਕਰ ਤੁਸੀਂ ਜਸਰਤ ਕਵਰੇਜ ਰਿੱਖਣੀ ਹੋਵੇ ਜਾਂ ਓਸ ਦੀ ਲਾਗਤ ਜਵਿੱਚ ਮਦਦ ਦੇ ਇਛੁੱਕ ਹੋ ਤਾਂ ਤੁਹਾਨੂੰ ਅੰਤਮ ਤਾਰੀਖ ਤੋਂ ਪਹਿਲਾਂ ਢੁੱਝ ਖਾਸ ਕਰਮ ਚੁੱਕਣ ਦੀ ਲੋੜ ਹੋ ਸਕਦੀ ਹੈ ,ਤੁਹਾਨੂੰ ਮੁਫਤ ਵਿੱਚ ਤੋਂ ਅਪਣੀ ਭਾਸ਼ਾ ਵਿੱਚ ਜਾਣਕਾਰੀ ਅਤੇ ਮਦਦ ਪ੍ਰਾਪਤ ਕਰਨ ਦਾ ਅਧਿਕਾਰ ਹੈ ,ਕਾਲ 800-722-1471 (TTY: 800-842-5357).

**فارسی (Farsi):**

این اعلامیه حاوی اطلاعات مهم میباشد. این اعلامیه ممکن است حاوی اطلاعات مهم درباره فرم تقاضا و یا پوشش بیمه ای شما از طریق Premera Blue Cross باشد. به تاریخ های مهم در این اعلامیه توجه نمایید. شما ممکن است برای حفظ پوشش بیمه تان یا کمک در پرداخت هزینه های درمانی تان، به تاریخ های مشخصی برای انجام کارهای خاصی احتیاج داشته باشید. شما حق این را دارید که این اطلاعات و کمک را به زبان خود به طور رایگان دریافت نمایید. برای کسب اطلاعات با شماره 800-722-1471 (کلیر بران TTY تماس باشماره 800-842-5357) تماس برقرار نمایید.

**Polskie (Polish):**

To ogłoszenie może zawierać ważne informacje. To ogłoszenie może zawierać ważne informacje odnośnie Państwa wniosku lub zakresu świadczeń poprzez Premera Blue Cross. Prosimy zwrócić uwagę na kluczowe daty, które mogą być zawarte w tym ogłoszeniu aby nie przekroczyć terminów w przypadku utrzymania polisy ubezpieczeniowej lub pomocy związanej z kosztami. Macie Państwo prawo do bezpłatnej informacji we własnym języku. Zadzwońcie pod 800-722-1471 (TTY: 800-842-5357).

**Português (Portuguese):**

Este aviso contém informações importantes. Este aviso poderá conter informações importantes a respeito de sua aplicação ou cobertura por meio do Premera Blue Cross. Poderão existir datas importantes neste aviso. Talvez seja necessário que você tome providências dentro de determinados prazos para manter sua cobertura de saúde ou ajuda de custos. Você tem o direito de obter esta informação e ajuda em seu idioma e sem custos. Ligue para 800-722-1471 (TTY: 800-842-5357).

**Română (Romanian):**

Prezenta notificare conține informații importante privind cererea sau acoperirea asigurării dumneavoastră de sănătate prin Premera Blue Cross. Pot exista date cheie în această notificare. Este posibil să fie nevoie să acționați până la anumite termene limită pentru a vă menține acoperirea asigurării de sănătate sau asistența provizorie la costuri. Aveți dreptul de a obține gratuit aceste informații și ajutor în limba dumneavoastră. Sunați la 800-722-1471 (TTY: 800-842-5357).

**Русский (Russian):**

Настоящее уведомление содержит важную информацию. Это уведомление может содержать важную информацию о вашем заявлении или страховом покрытии через Premera Blue Cross. В настоящем уведомлении могут быть указаны ключевые даты. Вам, возможно, потребуется принять меры к определенным предельным срокам для сохранения страхового покрытия или помощи с расходами. Вы имеете право на бесплатное получение этой информации и помощь на вашем языке. Звоните по телефону 800-722-1471 (TTY: 800-842-5357).

**Fa'asamoa (Samoan):**

Atonu ua iai i lenei fa'asilasilaga ni fa'amatalaga e sili ona taua e tatau ona e malamalama i ai. O lenei fa'asilasilaga o se fesoasoani e fa'amatala atili i ai i le tulaga o le polokalame, Premera Blue Cross, ua e tau fia maua atu i ai. Fa'amolemole, ia e iloilo fa'alelei i aso fa'apitoa olo'o iai i lenei fa'asilasilaga taua. Masalo o le'a iai ni feau e tatau ona e faia ao le'i aulia le aso ua ta'ua i lenei fa'asilasilaga ia e iai pea ma maua fesoasoani mai ai i le polokalame a le Malo olo'o e iai i ai. Olo'o iai iate oe le aia tatau e maua atu i lenei fa'asilasilaga ma lenei fa'matalaga i legagana e te malamalama i ai aunoa ma se togiga tupe. Vili atu i le telefoni 800-722-1471 (TTY: 800-842-5357).

**Español (Spanish):**

Este Aviso contiene información importante. Es posible que este aviso contenga información importante acerca de su solicitud o cobertura a través de Premera Blue Cross. Es posible que haya fechas clave en este aviso. Es posible que deba tomar alguna medida antes de determinadas fechas para mantener su cobertura médica o ayuda con los costos. Usted tiene derecho a recibir esta información y ayuda en su idioma sin costo alguno. Llame al 800-722-1471 (TTY: 800-842-5357).

**Tagalog (Tagalog):**

Ang Paunawa na ito ay naglalaman ng mahalagang impormasyon tungkol sa iyong aplikasyon o pagsakop sa pamamagitan ng Premera Blue Cross. Maaaring may mga mahalagang petsa dito sa paunawa. Maaring mangailangan ka na magsagawa ng hakbang sa ilang mga itinakdang panahon upang mapanatili ang iyong pagsakop sa kalusugan o tulong na walang gastos. May karapatan ka na makakuha ng ganiitong impormasyon at tulong sa iyong wika ng walang gastos. Tumawag sa 800-722-1471 (TTY: 800-842-5357).

**ไทย (Thai):**

ประกาศนี้มีข้อมูลสำคัญ ประกาศนี้อาจมีข้อมูลที่สำคัญเกี่ยวกับกาการสมัครหรือขอบเขตประกันสุขภาพของคุณผ่าน Premera Blue Cross และอาจมีกำหนดการในประกาศนี้ คุณอาจจะต้องดำเนินการภายในกำหนดระยะเวลาที่แน่นอนเพื่อจะรักษาการประกันสุขภาพของคุณหรือการช่วยเหลือที่มีค่าใช้จ่าย คุณมีสิทธิที่จะได้รับข้อมูลและความช่วยเหลือนี้ในภาษาของคุณโดยไม่มีค่าใช้จ่าย โทร 800-722-1471 (TTY: 800-842-5357)

**Український (Ukrainian):**

Це повідомлення містить важливу інформацію. Це повідомлення може містити важливу інформацію про Ваше звернення щодо страховального покриття через Premera Blue Cross. Зверніть увагу на ключові дати, які можуть бути вказані у цьому повідомленні. Існує імовірність того, що Вам треба буде здійснити певні кроки у конкретні кінцеві строки для того, щоб зберегти Ваше медичне страхування або отримати фінансову допомогу. У Вас є право на отримання цієї інформації та допомоги безкоштовно на Вашій рідній мові. Дзвоніть за номером телефону 800-722-1471 (TTY: 800-842-5357).

**Tiếng Việt (Vietnamese):**

Thông báo này cung cấp thông tin quan trọng. Thông báo này có thông tin quan trọng về đơn xin tham gia hoặc hợp đồng bảo hiểm của quý vị qua chương trình Premera Blue Cross. Xin xem ngày quan trọng trong thông báo này. Quý vị có thể phải thực hiện theo thông báo đúng trong thời hạn để duy trì bảo hiểm sức khỏe hoặc được trợ giúp thêm về chi phí. Quý vị có quyền được biết thông tin này và được trợ giúp bằng ngôn ngữ của mình miễn phí. Xin gọi số 800-722-1471 (TTY: 800-842-5357).