

(80120)

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Preauthorization is required and must be obtained through Case Management.

The following protocol contains medical necessity criteria that apply for this service. The criteria are also applicable to services provided in the local Medicare Advantage operating area for those members, unless separate Medicare Advantage criteria are indicated. If the criteria are not met, reimbursement will be denied and the patient cannot be billed. Please note that payment for covered services is subject to eligibility and the limitations noted in the patient’s contract at the time the services are rendered.

Description

Hematopoietic stem cell transplantation (HSCT) refers to 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 HSCT) or from a donor (allogeneic HSCT). 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 (GVHD). Cord blood is discussed in greater detail in the Placental and Umbilical Cord Blood as a Source of Stem Cells Protocol.

Summary of Evidence

Randomized trials have shown no survival advantage to HSCT as first-line therapy for *indolent* B-cell lymphomas; however, randomized studies have shown a survival benefit for relapsed disease.

Data from randomized trials have shown conflicting results, but some have shown an overall survival benefit with HSCT to consolidate a first complete remission (CR) in patients with *aggressive* B-cell lymphomas at high or high-intermediate risk of relapse. Randomized studies of HSCT for relapsed aggressive B-cell lymphomas have shown an overall survival benefit with this approach.

No randomized studies have been conducted on the use of tandem HSCT for the treatment of non-Hodgkin lymphoma, and the published evidence comprises small numbers of patients. Therefore, the data on tandem transplants are insufficient to determine outcomes with this type of treatment.

Due in part to the relative rarity of the disease, randomized studies on the use of HSCT in mantle cell lymphoma have not been conducted. Case series have shown long-term disease control of this aggressive lymphoma with the use of autologous HSCT (with rituximab) to consolidate a first remission; however, the use of autologous HSCT in the relapsed setting has not shown improved outcomes. Allogeneic HSCT has shown prolonged disease control in the relapsed/refractory setting.

The role of HSCT in peripheral T-cell lymphoma (PTCL) is not well-defined. Few studies have been conducted, many of these retrospectively, with small numbers of patients and heterogeneous patient populations including good- and poor-risk patients in the same study. This is partly due to the rarity and heterogeneity of this group of

lymphomas. In particular, studies often mix patients with PTCL-NOS (NOS [not otherwise specified], which has a poorer prognosis) with patients with anaplastic lymphoma kinase-anaplastic large-cell lymphomas (ALK + ALCL), which has a better prognosis (even with conventional chemotherapy regimens), and ALK - ALCL patients who have a worse prognosis than ALK + ALCL but better than PTCL-NOS patients. There have been no randomized studies comparing chemotherapy regimens solely in patients with PTCL (i.e., some randomized studies have included PTCL with aggressive B-cell lymphomas). For frontline therapy, results from recent phase II studies with autologous HSCT as consolidation offers the best survival outcomes for patients with high-risk features; randomized trials to confirm this have not been performed. No relevant data for the use of allogeneic HSCT in the front-line setting are available. Patients with relapsed or refractory PTCL are generally considered incurable with chemotherapy alone. In the salvage setting, the data show that the use of HSCT may improve survival outcomes similar to the results seen in corresponding aggressive B-cell lymphomas in the same treatment setting.

Policy

For patients with non-Hodgkin's lymphoma (NHL) B-cell subtypes considered aggressive (except mantle cell lymphoma), either allogeneic hematopoietic stem-cell transplantation (HSCT) using a myeloablative conditioning regimen or autologous HSCT may be considered **medically necessary**:

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

For patients with mantle cell lymphoma:

- Autologous HSCT may be considered **medically necessary** to consolidate a first remission.
- Allogeneic HSCT, myeloablative or reduced-intensity conditioning, may be considered **medically necessary** as salvage therapy.
- Autologous HSCT is considered **investigational** as salvage therapy.
- Allogeneic HSCT is considered **investigational** to consolidate a first remission.

For patients with NHL B-cell subtypes considered indolent, either allogeneic HSCT using a myeloablative conditioning regimen or autologous HSCT may be considered **medically necessary**:

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

Either autologous HSCT or allogeneic HSCT is considered **investigational**:

- as initial therapy (i.e., without a full course of standard-dose induction chemotherapy) for any NHL;
- to consolidate a first CR for patients with diffuse large B-cell lymphoma and an International Prognostic Index score that predicts a low- or low-intermediate risk of relapse;
- to consolidate a first CR for those with indolent NHL B-cell subtypes.

For patients with mature T-cell or NK-cell (peripheral T-cell) neoplasms:

- Autologous HSCT may be considered **medically necessary** to consolidate a first complete remission in high-risk subtypes. (see Policy Guidelines)
- Autologous or allogeneic HSCT (myeloablative or reduced-intensity conditioning) may be considered **medically necessary** as salvage therapy.
- Allogeneic HSCT is considered **investigational** to consolidate a first remission.

Reduced-intensity conditioning allogeneic HSCT may be considered **medically necessary** as a treatment of NHL in patients who meet criteria for an allogeneic HSCT but who do not qualify for a myeloablative allogeneic HSCT (see Policy Guidelines).

Tandem transplants are considered **investigational** to treat patients with any stage, grade, or subtype of NHL.

Note: Small lymphocytic lymphoma (SLL) may be considered a node-based variant of chronic lymphocytic leukemia (CLL). Therefore, SLL is considered along with CLL in the Hematopoietic Stem Cell Transplantation for Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma Protocol. Lymphoplasmacytic lymphoma/Waldenström macroglobulinemia is considered in the Hematopoietic Stem Cell Transplantation for Waldenström Macroglobulinemia Protocol.

Policy Guidelines

Individual transplant facilities may have their own additional requirements or protocols that must be met in order for the patient to be eligible for a transplant at their facility.

Reduced-intensity conditioning (RIC) would be considered an option in patients who meet criteria for an allogeneic HSCT but whose age (typically older than 55 years) or comorbidities (e.g., liver or kidney dysfunction, generalized debilitation, prior intensive chemotherapy) preclude use of a standard conditioning regimen.

In patients who qualify for a myeloablative allogeneic HSCT on the basis of overall health and disease status, allogeneic HSCT using either myeloablative or RIC may be considered. However, a myeloablative conditioning regimen with allogeneic HSCT may benefit younger patients with good performance status and minimal comorbidities more than allogeneic HSCT with RIC.

A chemosensitive relapse is defined as relapsed NHL that does not progress during or immediately after standard-dose induction chemotherapy (i.e., achieves stable disease or a partial response).

Transformation describes a lymphoma whose histologic pattern has evolved to a higher-grade lymphoma. Transformed lymphomas typically evolve from a nodular pattern to a diffuse pattern.

Tandem transplants usually are defined as the planned administration of two successive cycles of high-dose myeloablative chemotherapy, each followed by infusion of autologous hematopoietic stem cells, whether or not there is evidence of persistent disease following the first treatment cycle. Sometimes, the second cycle may use nonmyeloablative immunosuppressive conditioning followed by infusion of allogeneic stem cells.

The term *salvage therapy* describes therapy given to patients with refractory or relapsed disease. For patients with PTCL, salvage therapy includes patients who do not achieve a CR (e.g., achieve only a partial response (PR), have no response, or have progressive disease) with first-line induction chemotherapy (refractory disease) or who relapse after achieving a CR with first-line induction chemotherapy. For mantle cell lymphoma, salvage therapy includes patients with progressive disease with first-line induction chemotherapy (refractory disease) or in patients who relapse after a CR or PR after initial induction chemotherapy, or patients who fail a previous autologous HSCT.

High-risk (aggressive) T-cell and natural killer (NK)-cell neoplasms: the T-cell and NK-cell neoplasms are a clinically heterogeneous group of rare disorders, most of which have an aggressive clinical course and poor prognosis. The exception includes the following subtypes, which typically have a relatively indolent and protracted course: T-cell large granulocyte leukemia (T-LGL), chronic lymphoproliferative disorder of NK cells, early-stage mycosis fungoides, primary cutaneous anaplastic large-cell lymphoma (ALCL), and ALK+ ALCL.¹

Medicare Advantage

If a transplant is needed, we arrange to have the transplant center review and decide whether the patient is an appropriate candidate for the transplant.

Background

Immunologic compatibility between infused hematopoietic stem cells and the recipient is not an issue in autologous HSCT. However, immunologic compatibility between donor and patient is a critical factor for achieving a good outcome of allogeneic HSCT. Compatibility is established by typing of HLA using cellular, serologic, or molecular techniques. HLA refers to the tissue type expressed at the class I and class II loci on chromosome 6. Depending on the disease being treated, an acceptable donor will match the patient at all or most of the HLA loci (with the exception of umbilical cord blood).

Conventional Preparative Conditioning for HSCT

The success of autologous HSCT 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 stem cells obtained from the patient before undergoing bone marrow ablation. As a consequence, autologous HSCT is typically performed as consolidation therapy when the patient's disease is in CR. Patients who undergo autologous HSCT are susceptible to chemotherapy-related toxicities and opportunistic infections before engraftment, but not GVHD.

The conventional ("classical") practice of allogeneic HSCT involves administration of cytotoxic agents (e.g., 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 (GVM) effect mediated by nonself immunologic effector cells that develop after engraftment of allogeneic stem cells within the patient's bone marrow space. While the slower GVM 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 allogeneic HSCT, immune suppressant drugs are required to minimize graft rejection and GVHD, which also increases susceptibility of the patient to opportunistic infections.

RIC for Allogeneic HSCT

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 but also to minimize as much as possible associated treatment-related morbidity and nonrelapse mortality (NRM) in the period during which the beneficial GVM effect of allogeneic transplantation develops. Although the definition of RIC remains arbitrary, with numerous versions employed, all seek to balance the competing effects of NRM 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 allogeneic HSCT 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 the purposes of this protocol, the term “reduced-intensity conditioning” will refer to all conditioning regimens intended to be nonmyeloablative, as opposed to fully myeloablative (traditional) regimens.

Non-Hodgkin Lymphoma

A heterogeneous group of lymphoproliferative malignancies, NHL usually originates in lymphoid tissue. Historically, uniform treatment of patients with NHL was hampered by the lack of a uniform classification system. In 1982, the Working Formulation (WF) was developed to unify different classification systems into one.² The WF divided NHL into low-, intermediate-, and high-grade, with subgroups based on histologic cell type. Because our understanding of NHL has improved, the diagnosis has become more sophisticated and includes the incorporation of new immunophenotyping and genetic techniques. As a result, the WF has become outdated.

European and American pathologists proposed a new classification, the Revised European-American Lymphoma (REAL) Classification³ and an updated version of the REAL system, the new World Health Organization (WHO) classification.⁴ The WHO/REAL classification recognized three major categories of lymphoid malignancies based on morphology and cell lineage: B-cell neoplasms, T-cell/NK-cell neoplasms, and Hodgkin lymphoma.

The most recent lymphoma classification is the 2008 WHO classification.

Updated WHO Classification 2008⁵

Mature B-Cell Neoplasms

Chronic lymphocytic leukemia/small lymphocytic lymphoma

B-cell prolymphocytic leukemia

Splenic marginal zone lymphoma

Hairy cell leukemia

Splenic lymphoma/leukemia, unclassifiable

*Splenic diffuse red pulp small B-cell lymphoma**

*Hairy cell leukemia-variant**

Lymphoplasmacytic lymphoma

Waldenström macroglobulinemia

Heavy chain diseases

Alpha heavy chain disease

Gamma heavy chain disease

Mu heavy chain disease

Plasma cell myeloma

Solitary plasmacytoma of bone

Extraosseous plasmacytoma

Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue (MALT lymphoma)

Nodal marginal zone B-cell lymphoma (MZL)

Pediatric type nodal MZL

Follicular lymphoma

Pediatric type follicular lymphoma

Primary cutaneous follicle center lymphoma

Mantle cell lymphoma

Diffuse large B-cell lymphoma (DLBCL), not otherwise specified

T cell/histiocyte-rich large B-cell lymphoma

DLBCL associated with chronic inflammation

Epstein-Barr virus (EBV)+ DLBCL of the elderly

Lymphomatoid granulomatosis

Primary mediastinal (thymic) large B-cell lymphoma

Intravascular large B-cell lymphoma

Primary cutaneous DLBCL, leg type

ALK [anaplastic lymphoma kinase] + large B-cell lymphoma

Plasmablastic lymphoma

Primary effusion lymphoma

Large B-cell lymphoma arising in HHV8-associated multicentric Castleman disease

Burkitt lymphoma

B-cell lymphoma, unclassifiable, with features intermediate between diffuse large B-cell lymphoma and Burkitt lymphoma

B-cell lymphoma, unclassifiable, with features intermediate between diffuse large B-cell lymphoma and classical Hodgkin lymphoma

* These represent provisional entities or provisional subtypes of other neoplasms. Diseases shown in *italics* are newly included in the 2008 WHO classification.

Mature T-Cell and NK-Cell Neoplasms

T-cell prolymphocytic leukemia

T-cell large granular lymphocytic leukemia

Chronic lymphoproliferative disorder of NK cells*

Aggressive NK-cell leukemia

Systemic EBV + T-cell lymphoproliferative disease of childhood (associated with chronic active EBV infection)

Hydroa vacciniforme-like lymphoma

Adult T-cell leukemia/lymphoma

Extranodal NK/T-cell lymphoma, nasal type
Enteropathy-associated T-cell lymphoma
Hepatosplenic T-cell lymphoma
Subcutaneous panniculitis-like T-cell lymphoma
Mycosis fungoides
Sézary syndrome
Primary cutaneous CD30+ T-cell lymphoproliferative disorder
 Lymphomatoid papulosis
 Primary cutaneous anaplastic large-cell lymphoma
*Primary cutaneous aggressive epidermotropic CD8+ cytotoxic T-cell lymphoma**
Primary cutaneous gamma-delta T-cell lymphoma
*Primary cutaneous small/medium CD4+ T-cell lymphoma**
Peripheral T-cell lymphoma, not otherwise specified
Angioimmunoblastic T-cell lymphoma
Anaplastic large cell lymphoma (ALCL), ALK+
*Anaplastic large cell lymphoma (ALCL), ALK-**

* These represent provisional entities or provisional subtypes of other neoplasms. Diseases shown in *italics* are newly included in the 2008 WHO classification.

In the United States, B-cell lymphomas represent 80% to 85% of cases of NHL, and T-cell lymphomas represent 15% to 20%. NK lymphomas are relatively rare.⁶

The International Lymphoma Classification Project identified the most common NHL subtypes as follows: diffuse large B-cell lymphoma (DLBCL) 31%, follicular lymphoma (FL) 22%, small lymphocytic lymphoma/chronic lymphocytic leukemia (SLL/CLL) 6%, mantle cell lymphoma (MCL) 6%, peripheral T-cell lymphoma (PTCL) 6%, and marginal zone B-cell lymphoma/MALT lymphoma 5%. All other subtypes each represent less than 2% of cases of NHL.⁶

In general, NHL can be divided into two prognostic groups, indolent and aggressive. Indolent NHL has a relatively good prognosis, with a median survival of 10 years; however, it is not curable in advanced clinical stages.² Early stage indolent NHL (stage 1 or 2) may be effectively treated with radiation alone.² Although indolent NHL is responsive to radiation and chemotherapy, a continuous rate of relapse is seen in advanced stages.² These patients can often be retreated if their disease remains of the indolent type. Indolent NHL may transform into a more aggressive form, which is generally treated with regimens that are used for aggressive, recurrent NHL. Histologic transformation to higher grade lymphoma occurs in up to 70% of patients with low-grade lymphoma,⁷ and median survival with conventional chemotherapy is one year or less.

FL is the most common indolent NHL (70%-80% of cases), and often the terms indolent lymphoma and FL are used synonymously. Also included in the indolent NHL are SLL/CLL, lymphoplasmacytic lymphoma, marginal zone lymphomas, and cutaneous T-cell lymphoma.

Aggressive NHL has a shorter natural history; however, 30% to 60% of these patients can be cured with intensive combination chemotherapy regimens.² Aggressive lymphomas include DLBCL, MCL, PTCL, anaplastic large cell lymphoma, and Burkitt lymphoma.

Oncologists developed a clinical tool to aid in predicting the prognosis of patients with aggressive NHL (specifically DLBCL), referred to as the International Prognostic Index (IPI).⁸ Before the development of IPI in 1993, prognosis was predominantly based on disease stage.

Based on the number of risk factors present and adjusted for patient age, the IPI defines four risk groups: low, low intermediate, high intermediate, and high risk, based on five significant risk factors prognostic of overall survival (OS):

1. Age older than 60 years
2. Elevated serum lactate dehydrogenase (LDH) level
3. Ann Arbor stage III or IV disease
4. Eastern Cooperative Oncology Group (ECOG) Performance Status of 2, 3, or 4
5. Involvement of more than one extranodal site

Risk groups are stratified according to the number of adverse factors as follows: 0 or 1 is low risk, 2 is low intermediate, 3 is high intermediate, and 4 or 5 are high risk.

Patients with two or more risk factors have a less than 50% chance of relapse-free survival (RFS) and OS at five years. Age-adjusted IPI and stage-adjusted modifications of this IPI are used for younger patients with localized disease.

Adverse risk factors for age-adjusted IPI include stage III or IV disease, elevated LDH and ECOG Performance Status of 2 or greater and can be calculated as follows: 0 is low risk, 1 is low intermediate, 2 is high intermediate, and 3 is high risk.

With the success of the IPI, a separate prognostic index was developed for FL, which has multiple independent risk factors for relapse after a first CR. The proposed and validated Follicular Lymphoma International Prognostic Index (FLIPI) contains five adverse prognostic factors:

1. Age older than 60 years
2. Ann Arbor stage III-IV
3. Hemoglobin level less than 12.0 g/dL
4. More than four lymph node areas involved
5. Elevated serum LDH level

These five factors are used to stratify patients into three categories of risk: low (0-1 risk factor), intermediate (2 risk factors), or poor (3 or more risk factors).⁹

Mantle Cell Lymphoma

MCL comprises approximately 65% to 68% of NHL and has been recognized within the past 15 years as a unique lymphoma subtype with a particularly aggressive course. MCL is characterized by a chromosomal translocation t(11;14), and the term mantle cell lymphoma was proposed in 1992 by Banks et al.¹⁰ The number of therapeutic trials is not as numerous for MCL as for other NHL, as it was not widely recognized until the REAL classification. MCL shows a strong predilection for elderly men, and most cases (70%) present with disseminated (stage 4) disease and extranodal involvement is common. Localized MCL is quite rare. MCL has a median survival of

approximately two to four years, and although most patients achieve remission with first-line therapy, relapse inevitably occurs, often within 12 to 18 months. MCL is rarely, if ever, cured with conventional therapy, and no standardized therapeutic approach to MCL is used.

There had been no generally established prognostic index for patients with MCL. Application of the IPI or FLIPI system to patients with MCL showed limitations, which included no separation of some important risk groups. In addition, some of the individual IPI and FLIPI risk factors, including number of extranodal sites and number of involved nodal areas showed no prognostic relevance, and hemoglobin showed no independent prognostic relevance in patients with MCL.¹¹ Therefore, a new prognostic index for patients with MCL was developed and should prove useful in comparing clinical trial results for MCL.

MCL International Prognostic Index

1. Age
2. ECOG performance status
3. Serum LDH (calculated as a ratio of LDH to a laboratory's upper limit of normal)
4. White blood cell (WBC) count
 - Zero points each are assigned for age younger than 50 years, ECOG performance 0-1, LDH ratio less than 0.67, WBC less than 6700
 - One point each for age 50 to 59 years, LDH ratio 0.67-0.99, WBC 6700-9999
 - Two points each for age 60 to 69 years, ECOG 2-4, LDH ratio 1.00-1.49, WBC 10,000-14,999
 - Three points each for age 70 years or older, LDH ratio 1.5 or greater, WBC 15,000 or more

MIPI allows separation of three groups with significantly different prognoses¹¹:

- 0-3 points=low risk, 44% of patients, median OS not reached and a five-year OS rate of 60%
- 4-5 points=intermediate risk, 35% of patients, median OS, 51 months
- 6-11 points=high risk, 21% of patients, median OS, 29 months

Peripheral T-Cell Lymphoma

Most PTCLs are aggressive and fall into the category of PTCL, unspecified (PTCL-u) or PTCL-NOS, angioimmunoblastic or anaplastic large cell which, combined make up approximately 60% to 70% of T-cell lymphomas. PTCLs are less responsive to standard chemotherapy than DLBCLs and carry a worse prognosis than aggressive B cell counterparts. Survival rates at five years with standard chemotherapy regimens range from 20% to 35%. The poor results with conventional chemotherapy have prompted exploration of the role of HSCT as therapy.

Staging

The Ann Arbor staging classification is commonly used for the staging of lymphomas and is the scheme defined in the American Joint Committee on Cancer Manual for Staging Cancer. Originally developed for Hodgkin disease, this staging scheme was later expanded to include non-Hodgkin lymphoma.

Ann Arbor Classification

Stage I - Involvement of a single lymph node region (I) or of a single extralymphatic organ or site (IE)

Stage II - Involvement of two or more lymph node regions on the same side of the diaphragm (II) or localized involvement of extralymphatic organ or site and of one or more lymph node regions on the same side of the diaphragm (IIE)

Stage III - Involvement of lymph node regions on both sides of the diaphragm (III), which may also be accompanied by localized involvement of extralymphatic organ or site (IIIE) or by involvement of the spleen (IIIS) or both (IIISE).

Stage IV - Diffuse or disseminated involvement of one or more extralymphatic organs or tissues with or without associated lymph node enlargement.

Related Protocols

Hematopoietic Cell Transplantation for Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

Hematopoietic Cell Transplantation for Primary Amyloidosis

Hematopoietic Cell Transplantation for Waldenström Macroglobulinemia

Hematopoietic Stem Cell Transplantation for Hodgkin Lymphoma

Placental and Umbilical Cord Blood as a Source of Stem Cells

Services that are the subject of a clinical trial do not meet our Technology Assessment Protocol criteria and are considered investigational. *For explanation of experimental and investigational, please refer to the Technology Assessment Protocol.*

It is expected that only appropriate and medically necessary services will be rendered. We reserve the right to conduct prepayment and postpayment reviews to assess the medical appropriateness of the above-referenced procedures. **Some of this protocol may not pertain to the patients you provide care to, as it may relate to products that are not available in your geographic area.**

References

We are not responsible for the continuing viability of web site addresses that may be listed in any references below.

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