



Effective Date 8/1/2023
Next Review Date... 8/1/2024
Coverage Policy Number IP0113

Emapalumab-lzsg

Table of Contents

Overview 1
Medical Necessity Criteria 1
Reauthorization Criteria 2
Authorization Duration 2
Conditions Not Covered..... 2
Coding Information 3
Background 3
References 3

Related Coverage Resources

Medication Administration Site of Care - 1605
Unassigned Drug or Biologic Code Medical
Precertification - 1701

INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This policy supports medical necessity review for emapalumab-lzsg intravenous infusion (Gamifant®).

Receipt of sample product does not satisfy any criteria requirements for coverage.

Medical Necessity Criteria

Emapalumab-lzsg (Gamifant) is considered medically necessary when the following are met:

- Primary Hemophagocytic Lymphohistiocytosis (HLH). Individual meets ALL of the following criteria:
A. Diagnosis of primary hemophagocytic lymphohistiocytosis documented by ONE of the following:
i. Molecular genetic diagnosis consistent with hemophagocytic lymphohistiocytosis (for example, confirmed bi-allelic pathogenic or likely pathogenic variants in AP3B1, LYST, PRF1, UNC13D/Munc13-4, STX11, STXPB2, RAB27a, XIAP/BIRC4 or SH2D1A)

- ii. Documentation of at least **FIVE** of the following diagnostic criteria from the American Histiocyte Society (at baseline prior to treatment):
 - a. Persistent fever
 - b. Splenomegaly
 - c. Cytopenia involving at least 2 cell lines (hemoglobin less than 9 g/dL or less than 10 g/dL in infants less than 4 weeks of age, absolute neutrophil count less than 1000/ μ L, platelets less than 100,000/ μ L)
 - d. Hypertriglyceridemia (fasting triglycerides 265mg/dL or greater) or hypofibrinogenemia (fibrinogen less than 1.5 g/L or greater than 3 standard deviations less than normal value for age)
 - e. Hemophagocytosis in bone marrow, spleen, or lymph nodes with no evidence of malignancy
 - f. Low or absent natural killer (NK)-cell activity
 - g. Serum ferritin greater than 500 mcg/L
 - h. Elevated soluble interleukin-2 (CD25) levels (greater than 2400 U/mL or very high for age)
- B. Evidence of active disease (for example, fever, splenomegaly, central nervous system symptoms, cytopenia, elevated fibrinogen and/or D-dimer, elevated ferritin, and elevated soluble CD25 [also referred to as soluble interleukin-2 receptor] levels)
- C. Refractory, recurrent, or progressive disease during conventional HLH therapy OR has demonstrated an intolerance to conventional HLH therapy (examples of conventional therapy include, etoposide, corticosteroids, cyclosporine, anti-thymocyte globulin, methotrexate)
- D. Medication is prescribed by, or in consultation with, a hematologist, oncologist, immunologist, transplant specialist, or physician who specializes in hemophagocytic lymphohistiocytosis or related disorders.

Dosing. Up to a maximum dose of 10 mg/kg by intravenous infusion, not more frequently than twice weekly (once every 3 to 4 days).

When coverage is available and medically necessary, the dosage, frequency, duration of therapy, and site of care should be reasonable, clinically appropriate, and supported by evidence-based literature and adjusted based upon severity, alternative available treatments, and previous response to therapy.

Reauthorization Criteria

Continuation of emapalumab-lzsg (Gamifant) is considered medically necessary when the above medical necessity criteria are met and **ALL** of the following:

1. Documentation of clinical response (improvement in any of the clinical or laboratory parameters used to demonstrate evidence of active disease on initial authorization), but also evidence of residual active disease
2. Dose titration has occurred to the minimum dose and frequency to achieve sustained clinical effect as recommended by FDA labeling of emapalumab-lzsg (Gamifant)
3. Individual has not received a successful hematopoietic stem cell transplant

Authorization Duration

Initial approval duration: up to 6 months.

Reauthorization approval duration: up to 6 months.

Conditions Not Covered

Emapalumab-lzsg (Gamifant) is considered experimental, investigational or unproven for **ANY** other use.

Coding Information

- Note: 1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Covered when medically necessary when used to report emapalumab-lzsg (Gamifant):

HCPCS Codes	Description
J9210	Injection, emapalumab-lzsg, 1 mg

Background

OVERVIEW

Gamifant, an anti-interferon gamma (IFN- γ) antibody, is indicated for the treatment of adult and pediatric patients with **primary hemophagocytic lymphohistiocytosis** (HLH) with refractory, recurrent, or progressive disease or intolerance with conventional HLH therapy.¹

Disease Overview

HLH is a syndrome characterized by signs and symptoms of extreme inflammation, caused by defects in cytotoxic function (cytotoxic T cells and natural killer cells).² The incidence is estimated at 1.2 cases per million individuals per year, but this is likely an underestimate.³ In healthy individuals, cytotoxic function is important to terminate immune responses when appropriate by targeting and destroying activated immune cells. Deficiencies in cytotoxic function lead to an unchecked immune response and hyper-inflammation. Primary HLH has a clear genetic cause, whereas secondary HLH is triggered by a concomitant infection or medical condition, such as Epstein-Barr virus infection, malignancy, or rheumatologic disorders. IFN- γ normally has both pro-inflammatory functions (e.g., macrophage activation) and anti-inflammatory functions (e.g., activation of cytotoxic cells).^{4,5} However, in HLH, the anti-inflammatory action of IFN- γ is ineffective due to impaired cytotoxic cell activity; thus, pro-inflammatory effects predominate.

Guidelines

The HLH-2004 treatment protocol, developed by the Histiocyte Society, is the current standard of care for diagnostic and therapeutic guidelines.⁶ Gamifant is not addressed in the 2004 protocol. To establish a diagnosis of HLH, patients must either have a molecular diagnosis consistent with HLH or must meet five out of eight diagnostic criteria. A backbone of etoposide and systemic dexamethasone is the conventional standard of care to induce symptomatic resolution; cyclosporine A and anti-thymocyte globulin have also demonstrated efficacy. Although chemotherapy prolongs survival in primary HLH, a hematopoietic stem cell transplant (HSCT) is needed for cure. Patients with primary HLH should continue chemotherapy (usually with etoposide, cyclosporine A, and dexamethasone) until HSCT can be performed. Myelotoxicity due to chemotherapy is a concern, especially since patients with HLH can have severe cytopenias and immunodeficiency at baseline.

References

1. Gamifant® intravenous infusion [prescribing information]. Waltham, MA: Sobi; November 2018.
2. Jordan MB, Allen CE, Weitzman S, Filipovich AH, McClain KL. How I treat hemophagocytic lymphohistiocytosis. *Blood*. 2011;118(15):4041-4052.
3. Weitzman S. Approach to hemophagocytic syndromes. *Hematology Am Soc Hematol Edu Program*. 2011;2011:178-183.
4. Avau A, Matthys P. Therapeutic potential of interferon- γ and its antagonists in autoinflammation: lessons from murine models of systemic juvenile idiopathic arthritis and macrophage activation syndrome. *Pharmaceuticals*. 2015;8:793-815.
5. Osinska I, Popko K, Demkow U. Perforin: an important player in immune response. *Centr Eur J Immunol*. 2014;39(1):109-115.

6. Henter J, Horne A, Aricó M, et al. HLH-2004: Diagnostic and Therapeutic Guidelines for Hemophagocytic Lymphohistiocytosis. *Pediatr Blood Cancer*. 2007;48:124-131.

"Cigna Companies" refers to operating subsidiaries of Cigna Corporation. All products and services are provided exclusively by or through such operating subsidiaries, including Cigna Health and Life Insurance Company, Connecticut General Life Insurance Company, Evernorth Behavioral Health, Inc., Cigna Health Management, Inc., and HMO or service company subsidiaries of Cigna Health Corporation. © 2023 Cigna.