Protocol for Gamifant® (emapalumab-lzsg)
Approved January 2022

Background:
Hemophagocytic lymphohistiocytosis (HLH) is a rapidly progressive, life-threatening syndrome of excessive immune activation.

Gamifant is an interferon gamma (IFNγ) blocking antibody indicated for the treatment of adult and pediatric (newborn and older) patients with primary hemophagocytic lymphohistiocytosis (HLH) with refractory, recurrent or progressive disease or intolerance with conventional HLH therapy.

Criteria for approval:

Patient meets ALL the following:

1. Patient has a diagnosis of primary HLH confirmed by one of the following:
   a) Has a genetic mutation known to cause HLH
   b) Has a family history consistent with primary HLH
   c) Has at least FIVE of the following 8 diagnostic criteria per HLH-2004 protocol and the American Histiocyte Society:
      i. Fever
      ii. Splenomegaly
      iii. Cytopenia affecting 2 of 3 lineages in the peripheral blood (hemoglobin < 9g/dL (<10g/dL in infants < 4 weeks), platelets < 100 x 109 /L, neutrophils < 1 x 109/L)
      iv. Hypertriglyceridemia (fasting triglycerides > 3 mmol/L or ≥ 265 mg/dL or hypofibrinogenemia ≤ 1.5g/dL)
      v. Hemophagocytosis in bone marrow, spleen, or lymph nodes with no evidence of malignancy
      vi. Low or absent NK cell activity
      vii. Ferritin ≥ 500 mcg/L
      viii. Elevation of soluble CD25 (> 2 SD from the mean); AND

2. Patient has active disease that is refractory and has an inadequate response to, has a contraindication, or is intolerant to conventional HLH therapy (e.g., dexamethasone, etoposide, cyclosporine, anti-thymocyte globulin.)

3. The prescribing physician is a Hematologist, Oncologist, Immunologist, Transplant Specialist, or other specialist experienced in the treatment of immunologic disorders;

4. Patient is a candidate for hematopoietic stem cell transplant (HSCT)
5. Patient is receiving prophylactic pre-medications (for example antivirals, antibiotics, antifungals) for Herpes Zoster, Pneumocystis jirovecii, and other fungal infections
6. Patient has been screened for tuberculosis, adenovirus, Epstein-Barr Virus and Cytomegalovirus as clinically indicated
7. Gamifant is used in combination with dexamethasone
8. Patient is tested for tuberculosis prior to initiation of therapy
9. Medication is prescribed in accordance with Food and Drug Administration (FDA) established indication and dosing regimens or in accordance with medically appropriate off-label indication and dosing according to American Hospital Formulary Service, Micromedex, Clinical Pharmacology, Wolters Kluwer Lexi-Drugs (Lexicomp), national guidelines, or other peer reviewed evidence
10. Weight must be monitored for drugs that have weight-based dosing

Initial Approval Duration: 3 months

Continuation of therapy:

1. Documentation of positive clinical response demonstrated in changes in the laboratory parameters in 1c above
2. Patient is receiving prophylactic pre-medications (for example antivirals, antibiotics, antifungals) for Herpes Zoster, Pneumocystis jirovecii, and other fungal infections;
3. Patient has been monitored while on therapy for tuberculosis, adenovirus, Epstein-Barr Virus and Cytomegalovirus; AND
4. Gamifant is used in combination with dexamethasone
5. For dose increases, the member's weight must be monitored
6. Medication is prescribed in accordance with Food and Drug Administration (FDA) established indication and dosing regimens or in accordance with medically appropriate off-label indication and dosing according to American Hospital Formulary Service, Micromedex, Clinical Pharmacology, Wolters Kluwer Lexi-Drugs (Lexicomp), national guidelines, or other peer reviewed evidence

Renewal Approval Duration: 6 months

References:

1. Gamifant® [prescribing information]. Sobi, Inc., Watham, MA 02452; June 2020.
2. Clinical Pharmacology® Gold Standard Series [Internet database]. Tampa FL. Elsevier 2019. Updated periodically
3. McClain KL. Treatment and prognosis of hemophagocytic lumphohistiocytosis. UpToDate. Updated May 11, 2020. Accessed November 2021.
4. Jordan MB, Allen CA, et al. How I treat hemophagocytic lymphohistiocytosis. Blood. 2011 Oct 13; 118(15): 4041–4052.
5. La Rosee P, Horne A, et al. Recommendations for the management of hemophagocytic lymphohistiocytosis in adults. Blood (2019) 133 (23): 2465–2477.