Executive Summary

Purpose: Ensure appropriate utilization and control of Gamifant® (emapalumab-lzsg) injection

Why Issue Selected: On November 20, 2018, Gamifant® (emapalumab-lzsg) injection was FDA approved 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. Primary HLH is a predominately pediatric, ultra-rare, rapidly progressive, hyperinflammatory syndrome caused by massive hyperproduction of interferon gamma that may lead to organ failure and death if not appropriately treated. Gamifant is a monoclonal antibody that binds to and neutralizes interferon gamma. It is the first and only FDA approved treatment specifically developed for primary HLH; steroids and chemotherapy are conventionally used off-label to treat HLH and decrease the body’s overwhelming inflammatory response prior to hematopoietic stem-cell transplantation. Dexamethasone should be administered concomitantly with Gamifant. HLH affects 1 in 100,000 persons younger than 18 years. The manufacturer has indicated that fewer than 100 cases of HLH are diagnosed in the US each year. Due to Gamifant’s highly specific indication, challenges in diagnosis, and place in therapy behind standard HLH therapies, MO HealthNet will impose criteria to ensure appropriate utilization.

Program-Specific Information:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Date Range FFS 4-1-2020 to 3-31-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAMIFANT 10MG/2ML VIAL</td>
<td>16 Claims</td>
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<tr>
<td></td>
<td>$173,147.34 Spend</td>
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<td>$10,821.71 Avg Spend per Claim</td>
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<tr>
<td>GAMIFANT 50MG/10ML VIAL</td>
<td>0 Claims</td>
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<td></td>
<td>- Spend</td>
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<tr>
<td></td>
<td>- Avg Spend per Claim</td>
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</tbody>
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Type of Criteria: ☒ Appropriate Indications

Data Sources: ☒ Databases + Prescriber-Supplied

Setting & Population

- Drug class for review: Gamifant® (emapalumab-lzsg) injection
- Age range: All appropriate MO HealthNet participants
Approval Criteria

**Initial Therapy:**
- Diagnosis of primary hemophagocytic lymphohistiocytosis based on a molecular diagnosis or family history consistent with primary HLH or if no diagnosis then 5 out of the following 8 criteria fulfilled:
  - Fever
  - Splenomegaly
  - Cytopenias affecting 2 of 3 lineages in the peripheral blood: hemoglobin < 9, platelets < 100 x 10^9/L, neutrophils <1 x 10^9/L
  - Hypertriglyceridemia (fasting triglycerides > 3 mmol/L or ≥ 265 mg/dL) and/or hypofibrinogenemia (≤1.5 g/L)
  - Hemophagocytosis in bone marrow, spleen, or lymph nodes with no evidence of malignancy
  - Low or absent NK-cell activity
  - Ferritin ≥ 500 mcg/L
  - Soluble CD 25 ≥ 2400 U/ml
- Administered concomitantly with dexamethasone AND
- Refractory, recurrent, or progressive disease with conventional HLH therapy or intolerance to conventional HLH therapy AND
- Participant does not have active infections caused by specific pathogens favored by interferon gamma neutralization (e.g., mycobacteria and Histoplasma Capsulatum) AND
- Demonstration of need required for dosages ≥ 6mg/kg per assessment by provider and at least one of the following:
  - Persistent or recurrent fever
  - Platelet count
    - baseline < 50,000/mm3 and no improvement to >50,000/mm3
    - baseline > 50,000/mm3 and less than 30% improvement
    - baseline > 100,000/mm3 and decrease to < 100,000/mm3
  - Neutrophil count
    - baseline < 500/mm3 and no improvement to > 500/mm3
    - baseline > 500 -1000/mm3 and decrease to < 500/mm3
    - baseline 1000-1500/mm3 and decrease to < 1000/mm3
  - Ferritin
    - baseline ≥ 3000 ng/mL and < 20% decrease
    - baseline < 3000 ng/mL and any increase to > 3000 ng/mL
  - Worsening splenomegaly
  - Coagulopathy (both D-Dimer and Fibrinogen must apply)
    - D-Dimer: abnormal at baseline and no improvement
    - Fibrinogen:
      - baseline levels ≤ 100 mg/dL and no improvement
      - baseline levels > 100 mg/dL and any decrease to < 100 mg/dL

**Continuation of Therapy:**
- Initial approval of prior authorization is 3 months
- Reassessment after the first initial 8 weeks of therapy demonstrating stabilization of disease or absence of disease progression as defined by improvement in 3 or more of the criteria listed above for diagnosis is required for renewal of prior authorization at 12 weeks

**Denial Criteria**
- Therapy will be denied if all approval criteria are not met.
Required Documentation

Laboratory Results: X
MedWatch Form: 
Progress Notes: 
Other: X

Disposition of Edit

Denial: Exception code “0682” (Clinical Edit)
Rule Type: CE

Default Approval Period

3 months

References

- IPD Analytics. Rx Insights New Drug Approval Review: Gamifant. November 2018