Eculizumab

**NDC CODE(S)**  25682-0001-XX - Soliris 10MG/ML Solution (ALEXION PHARMACEUTICALS)

**DESCRIPTION**

Eculizumab, a recombinant monoclonal antibody, binds to the complement protein C5 and inhibits its cleavage to C5a and C5b, preventing the generation of terminal complement complex C5b-9. The complement system of proteins, which is part of the immune system, destroys abnormal red blood cells. Eculizumab prevents destruction of red blood cells that are deficient in terminal complement inhibitors.

**POLICY**

- Eculizumab for the treatment of the following is considered **medically necessary** if the medical appropriateness criteria are met: *(See Medical Appropriateness below.)*
  - Atypical hemolytic uremic syndrome (aHUS)
  - Generalized Myasthenia Gravis (gMG)
  - Neuromyelitis Optica Spectrum Disorder (NMOSD)
  - Paroxysmal nocturnal hemoglobinuria

- Eculizumab for the treatment of other conditions/diseases is considered **investigational.**

**MEDICAL APPROPRIATENESS**

**INITIAL APPROVAL**

- Eculizumab is considered **medically appropriate** if **ALL** of the following criteria are met:
  - Individual is free from unresolved serious systemic infection including Neisseria meningitidis infection
  - Individual immunized against Neisseria meningitidis at minimum 2 weeks before beginning treatment and revaccinated according to current medical guidelines for vaccine use *(Note: If urgent eculizumab therapy is indicated in an unvaccinated patient, administer meningococcal vaccine(s) as soon as possible and provide patients with two weeks of antibacterial drug prophylaxis.)*
  - Prescriber is enrolled in the Soliris REMS (Risk Evaluation Mitigation Strategy) program
  - Will not be used in combination with other complement-inhibitor therapy (e.g., ravulizumab-cwvz)
  - Diagnosis of **ANY ONE** of the following:
    - Atypical hemolytic uremic syndrome (aHUS) diagnosis if individual is **ALL** of the following:
      - Individual is 2 months of age or older
      - Thrombotic Thrombocytopenic Purpura (TTP) has been ruled out by evaluating ADAMTS-13 level (ADAMTS-13 activity level >10%)
      - Absence of Shiga toxin E. coli- related hemolytic uremic syndrome (STEC-HUS)
      - Other hemolytic causes have been ruled out such as coexisting diseases or conditions (e.g. bone marrow transplantation, solid organ transplantation, malignancy, autoimmune disorder, drug-induced, malignant hypertension, HIV infection, etc.), Streptococcus pneumoniae or Influenza A (H1N1) infection, or cobalamin deficiency
      - Documented baseline values for **ANY ONE** or more of the following (necessary for renewal):
        - Serum lactate dehydrogenase (LDH)
        - Serum creatinine/eGFR (estimated glomerular filtration rate)
        - Platelet count
        - Plasma exchange/infusion requirement
    - Generalized Myasthenia Gravis (gMG) if **ALL** of the following:
      - Individual is 18 years or older
• Diagnosed with Myasthenia Gravis Foundation of America (MGFA) Clinical Classification of Class II to IV disease
• Positive serologic test for anti-acetylcholine receptor (AchR) antibodies
• Physician has assessed the baseline Quantitative Myasthenia Gravis (QMG) score
• MG-Activities of Daily Living (MG-ADL) total score of ≥6
• Failed treatment over at least 1 year with at least 2 immunosuppressive therapies (e.g. azathioprine, cyclosporine, mycophenolate, etc), or has failed at least 1 immunosuppressive therapy and required chronic plasmapheresis or plasma exchange (PE) or intravenous immunoglobulin (IVIG)
  ▪ Neuromyelitis Optica Spectrum Disorder (NMOSD) if individual is or has ALL of the following:
    • Age of 18 years or older
    • Found to be seropositive for aquaporin-4 (AQP4) IgG antibodies
    • History of minimum of 2 relapses in the last 12 months OR 3 relapses in the last 24 months, with at least 1 relapse in the last 12 months
    • Expanded Disability Status Score (EDSS) of ≤ 7 (consistent with the presence of at least limited ambulation with aid)
    • Receiving concurrent corticosteroid therapy of 20 mg per day or less and those receiving immunosuppressive therapy (e.g. azathioprine, glucocorticoids, mycophenolate, etc) are on a stable dose regimen
    • Not received therapy with rituximab or mitoxantrone in the last 3 months
    • Not received intravenous immune globulin (IVIG) in the last 3 weeks
  ▪ Paroxysmal nocturnal hemoglobinuria (PNH) diagnosis with ALL of the following:
    • Individual is 18 years of age or older
    • Diagnosis must be accompanied by detection of PNH clones of at least 10% by flow cytometry diagnostic testing
    • Demonstrate the presence of at least 2 different GPI protein (glycosylphosphatidylinositol) deficiencies (e.g., CD55, CD59, etc.) within at least 2 different cell lines (granulocytes, monocytes, erythrocytes)
    • Individual has ANY ONE of the following indications for therapy:
      o Presence of a thrombotic event
      o Presence of organ damage secondary to chronic hemolysis
      o Individual is pregnant and potential benefit outweighs potential fetal risk
      o Is transfusion dependent
      o High LDH activity (defined as ≥1.5 x ULN) with clinical symptoms
    • Documented baseline values for ANY ONE or more of the following (necessary for renewal):
      o Serum lactate dehydrogenase (LDH)
      o Hemoglobin level
      o Packed RBC transfusion requirement

RENEWAL CRITERIA

• Eculizumab is considered medically appropriate for renewal if ALL of the following criteria are met:
  o Individual continues to meet initial approval criteria
  o Absence of unacceptable toxicity from the drug, e.g., infusion reactions, serious infections, etc.
  o Disease response is indicated by ANY ONE of the following:
    ▪ For a diagnosis of atypical hemolytic uremic syndrome (aHUS), ANY ONE of the following:
      • Decrease in serum LDH from pretreatment baseline
      • Stabilization/improvement in serum creatinine/eGFR from pretreatment baseline
      • Increase in platelet count from pretreatment baseline
      • Decrease in plasma exchange/infusion requirement from pretreatment baseline
    ▪ For a diagnosis of gMG, ANY ONE of the following:
- Improvement of at least 3-points from baseline in the Myasthenia Gravis-Specific Activities of Daily Living scale (MG-ADL) total score
- Improvement of at least 5-points from baseline in the Quantitative Myasthenia Gravis (QMG) total score
  - For a diagnosis of Neuromyelitis Optica Spectrum Disorder (NMOSD), stabilization/improvement of neurologic symptoms as evidenced by a decrease in acute relapses, EDSS, hospitalizations or plasma exchange treatments
  - For a diagnosis of paroxysmal nocturnal hemoglobinuria (PNH), ANY ONE of the following:
    - Decrease in serum LDH from pretreatment baseline
    - Stabilization/improvement in hemoglobin level from pretreatment baseline
    - Decrease in packed RBC transfusion requirement from pretreatment baseline

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<th>INDICATION(S)</th>
<th>DOSAGE &amp; ADMINISTRATION</th>
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<tbody>
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<td>(Doses should be administered at the following intervals or within two days of these time points)</td>
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| Paroxysmal nocturnal hemoglobinuria | Loading dose: 600mg every 7 days for the first 4 weeks, followed by 900mg for the fifth dose 7 days later and then 900mg every 14 days thereafter (initial loading dose requires a total of 3,300mg over 5 weeks)  
Maintenance dose: 900 mg every 14 days |
| Atypical hemolytic uremic syndrome | Loading dose: 900mg every 7 days for the first 4 weeks, followed by 1,200mg for the fifth dose 7 days later and then 1,200mg every 14 days thereafter (initial loading dose requires a total of 4,800mg over 5 weeks)  
Maintenance dose: 1200 mg every 14 days |
| Generalized Myasthenia Gravis (gMG) and Neuromyelitis Optica Spectrum Disorder (NMOSD) | Loading dose: 900 mg intravenously every 7 days for the first 4 weeks, followed by 1,200 mg intravenously for the fifth dose 7 days later  
Maintenance dose: 1200 mg intravenously every 14 days |

**Dose Adjustment for aHUS (adult and pediatric patients), gMG (adult patients) and NMOSD (adult patients) in Case of Plasmapheresis, Plasma Exchange or Fresh Frozen Plasma Infusion**

<table>
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<tr>
<th>Type of Plasma Exchange</th>
<th>Most Recent Eculizumab Dose</th>
<th>Supplemental Eculizumab With Each Plasma Intervention</th>
<th>Timing of Supplemental Eculizumab Dose</th>
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| Plasmapheresis or plasma exchange (PE) | 300 mg  
≥ 600 mg | 300 mg per each plasmapheresis or PE  
600 mg per each plasmapheresis or PE | Within 60 minutes after each plasmapheresis or PE |
| Fresh frozen plasma infusion (FFP) | ≥300 mg | 300 mg per each infusion of FFP | 60 minutes prior to each infusion of FFP |

**LENGTH OF AUTHORIZATION**

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Coverage will be provided for twelve months for paroxysmal nocturnal hemoglobinuria (PNH) and atypical hemolytic uremic syndrome (aHUS) and may be renewed.

For Generalized Myasthenia Gravis and Neuromyelitis Optica Spectrum Disorder, initial coverage will be provided for 6 months and may be renewed annually thereafter.

Refer to DOSAGE LIMITS below

APPLICABLE TENNESSEE STATE MANDATE REQUIREMENTS

BlueCross BlueShield of Tennessee’s Medical Policy complies with Tennessee Code Annotated Section 56-7-2352 regarding coverage of off-label indications of Food and Drug Administration (FDA) approved drugs when the off-label use is recognized in one of the statutorily recognized standard reference compendia or in the published peer-reviewed medical literature.

IMPORTANT REMINDER

We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member’s health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.

ADDITIONAL INFORMATION

For appropriate chemotherapy regimens, dosage information, contraindications, precautions, warnings, and monitoring information, please refer to one of the standard reference compendia (e.g., the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) published by the National Comprehensive Cancer Network®, Drugdex Evaluations of Micromedex Solutions at Truven Health, or The American Hospital Formulary Service Drug Information).

SOURCES


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**EFFECTIVE DATE**  
12/31/2019

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