

Reference number(s)
2042-A

## SPECIALTY GUIDELINE MANAGEMENT

### Intravenous Immune Globulin (IVIG):

**Bivigam<sup>®</sup>, Carimune<sup>®</sup> NF, Flebogamma<sup>®</sup> DIF, Gammagard<sup>®</sup> Liquid, Gammagard<sup>®</sup> S/D, Gammaked<sup>™</sup>, Gammaplex<sup>®</sup>, Gamunex<sup>®</sup>-C, Octagam<sup>®</sup>, and Privigen<sup>®</sup>**

## POLICY

### I. INDICATIONS

The indications below including FDA-approved indications and compendial uses are considered a covered benefit provided that all the approval criteria are met and the member has no exclusions to the prescribed therapy.

#### A. FDA-Approved Indications

1. Primary immunodeficiency
2. Idiopathic thrombocytopenic purpura (ITP)
3. Chronic inflammatory demyelinating polyneuropathy
4. Multifocal motor neuropathy
5. Kawasaki syndrome
6. B-cell chronic lymphocytic leukemia (CLL)

#### B. Compendial Uses

1. Prophylaxis of bacterial infections in pediatric human immunodeficiency virus (HIV) infection
2. Prophylaxis of bacterial infections in bone marrow transplant (BMT)/hematopoietic stem cell transplant (HSCT) recipients
3. Dermatomyositis
4. Polymyositis
5. Myasthenia gravis
6. Guillain-Barre syndrome
7. Lambert-Eaton myasthenic syndrome
8. Fetal/neonatal alloimmune thrombocytopenia
9. Parvovirus B19-induced pure red cell aplasia
10. Stiff-person syndrome

All other indications are considered experimental/investigational and are not a covered benefit.

### II. REQUIRED DOCUMENTATION

The following information is necessary to initiate the prior authorization review:

#### A. Primary immunodeficiency

1. Diagnostic test results (when applicable)
  - a. Copy of laboratory report with serum immunoglobulin levels: IgG, IgA, IgM, and IgG subclasses
  - b. Vaccine response to pneumococcal polysaccharide vaccine (post-vaccination *Streptococcus pneumoniae* antibody titers)
  - c. Pertinent genetic or molecular testing in members with a known genetic disorder
  - d. Copy of laboratory report with lymphocyte subset enumeration by flow cytometry

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2. IgG trough level for those continuing with IVIG therapy
- B. Secondary hypogammaglobulinemia (CLL, HIV, BMT/HSCT recipients)
  1. Copy of laboratory report with pre-treatment serum IgG level (when applicable)
- C. Chronic inflammatory demyelinating polyneuropathy (CIDP) and multifocal motor neuropathy (MMN)
  1. Pre-treatment electrodiagnostic studies (electromyography [EMG] or nerve conduction studies [NCS])
  2. For CIDP, pre-treatment cerebrospinal fluid (CSF) analysis (when available)
- D. Dermatomyositis and polymyositis
  1. Pre-treatment electrodiagnostic studies (EMG/NCS)
  2. Pre-treatment muscle biopsy report (when available)

### III. CRITERIA FOR INITIAL APPROVAL

#### A. Primary Immunodeficiency

Initial authorization of 12 months may be granted for members with any of the following diagnoses:

1. Severe combined immunodeficiency (SCID) or congenital agammaglobulinemia (eg, X-linked or autosomal recessive agammaglobulinemia):
  - a. Diagnosis confirmed by genetic or molecular testing, or
  - b. Pretreatment IgG level < 200 mg/dL, or
  - c. Absence or very low number of T cells (CD3 T cells < 300/microliter) or the presence of maternal T cells in the circulation (SCID only)
2. Wiskott-Aldrich syndrome, DiGeorge syndrome, or ataxia-telangiectasia (or other non-SCID combined immunodeficiency):
  - a. Diagnosis confirmed by genetic or molecular testing (if applicable), and
  - b. History of recurrent bacterial infections (eg, pneumonia, otitis media, sinusitis, sepsis, gastrointestinal), and
  - c. Impaired antibody response to pneumococcal polysaccharide vaccine (see Appendix A)
3. Common variable immunodeficiency (CVID):
  - a. Age 4 years or older
  - b. Other causes of immune deficiency have been excluded (eg, drug induced, genetic disorders, infectious diseases such as HIV, malignancy)
  - c. Pretreatment IgG level < 500 mg/dL or  $\geq 2$  SD below the mean for age
  - d. History of recurrent bacterial infections
  - e. Impaired antibody response to pneumococcal polysaccharide vaccine (see Appendix A)
4. Hypogammaglobulinemia (unspecified), IgG subclass deficiency, selective IgA deficiency, selective IgM deficiency, or specific antibody deficiency:
  - a. History of recurrent bacterial infections
  - b. Impaired antibody response to pneumococcal polysaccharide vaccine (see Appendix A)
  - c. Any of the following pre-treatment laboratory findings:
    - i. Hypogammaglobulinemia: IgG < 500 mg/dL or  $\geq 2$  SD below the mean for age
    - ii. Selective IgA deficiency: IgA level < 7 mg/dL with normal IgG and IgM levels
    - iii. Selective IgM deficiency: IgM level < 30 mg/dL with normal IgG and IgA levels
    - iv. IgG subclass deficiency: IgG1, IgG2, or IgG3  $\geq 2$  SD below mean for age assessed on at least 2 occasions; normal IgG (total) and IgM levels, normal/low IgA levels
    - v. Specific antibody deficiency: normal IgG, IgA and IgM levels
5. Other predominant antibody deficiency disorders must meet a., b., and c.i. in section 4. above.
6. Other combined immunodeficiency must meet criteria in section 2. above.

Re-authorization of 24 months may be granted when the following criteria are met:

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1. A reduction in the frequency of bacterial infections has been demonstrated since initiation of IVIG therapy, AND
2. IgG trough levels are monitored at least yearly and maintained at or above the lower range of normal for age (when applicable for indication), OR
3. The prescriber will re-evaluate the dose of IVIG and consider a dose adjustment (when appropriate).

Gammagard Liquid, Gamunex-C, and Gammaked may be administered intravenously or subcutaneously for primary immunodeficiency.

**B. Myasthenia Gravis**

1. Authorization of 1 month may be granted to members who are prescribed IVIG for worsening weakness, acute exacerbation, or in preparation for surgery.
  - a. Worsening weakness includes an increase in any of the following symptoms: diplopia, ptosis, blurred vision, difficulty speaking (dysarthria), difficulty swallowing (dysphagia), difficulty chewing, impaired respiratory status, fatigue, and limb weakness. Acute exacerbations include more severe swallowing difficulties and/or respiratory failure
  - b. Pre-operative management (eg, prior to thymectomy)
2. Authorization of 3 months may be granted to members with refractory myasthenia gravis who have tried and failed 2 or more of standard therapies (eg, corticosteroids, azathioprine, cyclosporine, mycophenolate mofetil, rituximab).

**C. Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)**

1. Initial authorization of 3 months may be granted when the following criteria are met:
  - a. Moderate to severe functional disability
  - b. The diagnosis was confirmed by electrodiagnostic studies and the evaluation of cerebrospinal fluid (CSF)
2. Re-authorization of 24 months may be granted when the following criteria are met:
  - a. Significant improvement in disability and maintenance of improvement since initiation of IVIG therapy
  - b. IVIG is being used at the lowest effective dose and frequency

**D. Dermatomyositis or Polymyositis**

1. Initial authorization of 3 months may be granted when the following criteria are met:
  - a. Diagnosis established by clinical features (eg, proximal weakness, rash), elevated muscle enzyme levels, electrodiagnostic studies, and muscle biopsy (when available); supportive diagnostic tests include autoantibody testing and muscle imaging (eg, MRI), and
  - b. Standard first-line treatments (corticosteroids or immunosuppressants) have been tried but were unsuccessful or not tolerated, or
  - c. Member is unable to receive standard first-line therapy because of a contraindication or other clinical reason.
2. Re-authorization of 12 months may be granted when the following criterion is met:
  - a. Significant improvement in disability and maintenance of improvement since initiation of IVIG therapy

**E. Idiopathic Thrombocytopenic Purpura (Immune Thrombocytopenia)**

1. Newly diagnosed ITP (diagnosed within the past 3 months) or initial therapy: authorization of 1 month may be granted when the following criteria are met:
  - a. Children (< 18 years of age)
    - i. Significant bleeding symptoms (mucosal bleeding or other moderate/severe bleeding) or
    - ii. High risk for bleeding\* (see Appendix B), or
    - iii. Rapid increase in platelets is required\* (eg, surgery or procedure)

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- b. Adults ( $\geq 18$  years of age)
  - i. Platelet count  $< 30,000/\text{mCL}$ , or
  - ii. Platelet count  $< 50,000/\text{mCL}$  and significant bleeding symptoms, high risk for bleeding or rapid increase in platelets is required\*, and
  - iii. Corticosteroid therapy is contraindicated and IVIG will be used alone or IVIG will be used in combination with corticosteroid therapy
2. Chronic/persistent ITP ( $\geq 3$  months from diagnosis) or ITP unresponsive to first-line therapy: authorization of 6 months may be granted when the following criteria are met:
  - a. Platelet count  $< 30,000/\text{mCL}$ , or
  - b. Platelet count  $< 50,000/\text{mCL}$  and significant bleeding symptoms, high risk for bleeding\* or rapid increase in platelets is required\*, and
  - c. Relapse after previous response to IVIG or inadequate response/intolerance/contraindication to corticosteroid or anti-D therapy
3. Adults with refractory ITP after splenectomy: authorization of 6 months may be granted when either of the following criteria is met:
  - a. Platelet count  $< 30,000/\text{mCL}$ , or
  - b. Significant bleeding symptoms
4. ITP in pregnant women: authorization through delivery may be granted to pregnant women with ITP.

\* The member's risk factor(s) for bleeding (see Appendix B) or reason requiring a rapid increase in platelets must be provided.

#### F. B-cell Chronic Lymphocytic Leukemia (CLL)

1. Initial authorization of 6 months may be granted when the following criteria are met:
  - a. IVIG is prescribed for prophylaxis of bacterial infections.
  - b. Member has a history of recurrent sinopulmonary infections requiring intravenous antibiotics or hospitalization.
  - c. Member has a pretreatment serum IgG level  $< 500 \text{ mg/dL}$ .
2. Re-authorization of 6 months may be granted when the following criterion is met:
  - a. A reduction in the frequency of bacterial infections has been demonstrated since initiation of IVIG therapy.

#### G. Prophylaxis of Bacterial Infections in HIV-Infected Pediatric Patients

1. Initial authorization of 6 months may be granted to pediatric members with HIV infection when the following criteria are met:
  - a. Member is  $\leq 12$  years of age.
  - b. IVIG is prescribed for primary prophylaxis of bacterial infections and pretreatment serum IgG  $< 400 \text{ mg/dL}$ , or
  - c. IVIG is prescribed for secondary prophylaxis of bacterial infections for members with a history of recurrent bacterial infections ( $> 2$  serious bacterial infections in a 1-year period)
2. Re-authorization of 6 months may be granted when the following criterion is met:
  - a. A reduction in the frequency of bacterial infections has been demonstrated since initiation of IVIG therapy.

#### H. Prophylaxis of Bacterial Infections in BMT/HSCT Recipients

1. Initial authorization of 6 months may be granted to members who are BMT/HSCT recipients when the following criteria are met:
  - a. IVIG is prescribed for prophylaxis of bacterial infections.
  - b. Either of the following:
    - i. IVIG is requested within the first 100 days post-transplant.
    - ii. Member has a pretreatment serum IgG  $< 400 \text{ mg/dL}$ .

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2. Re-authorization of 6 months may be granted when the following criterion is met:
  - a. A reduction in the frequency of bacterial infections has been demonstrated since initiation of IVIG therapy.

**I. Multifocal Motor Neuropathy (MMN)**

1. Initial authorization of 3 months may be granted when the following criteria are met:
  - a. Weakness without objective sensory loss in 2 or more nerves
  - b. The diagnosis was confirmed by electrodiagnostic studies
2. Re-authorization of 24 months may be granted when the following criterion is met:
  - a. Significant improvement in disability and maintenance of improvement since initiation of IVIG therapy

**J. Guillain-Barre Syndrome (GBS)**

Authorization of 2 months total may be granted for the treatment of GBS.

**K. Lambert-Eaton Myasthenic Syndrome (LEMS)**

Authorization of 24 months may be granted for LEMS.

**L. Kawasaki Syndrome**

Authorization of 1 month may be granted for pediatric members with Kawasaki syndrome.

**M. Fetal/Neonatal Alloimmune Thrombocytopenia (F/NAIT)**

Authorization of 6 months may be granted for treatment of F/NAIT.

**N. Parvovirus B19-induced Pure Red Cell Aplasia (PRCA)**

Authorization of 6 months may be granted for parvovirus B19-induced PRCA.

**O. Stiff-person Syndrome**

Authorization of 6 months may be granted for treatment of stiff-person syndrome.

**IV. CONTINUATION OF THERAPY**

Reauthorization criteria apply to members who are currently receiving IVIG therapy through a paid pharmacy or medical benefit. All other members (including new members) must meet initial authorization criteria.

**V. OTHER**

When Gammagard Liquid, Gamunex-C and Gammaked will be administered subcutaneously, they may be approved for primary immunodeficiency only.

**VI. APPENDICES**

Appendix A: Impaired Antibody Response to Pneumococcal Polysaccharide Vaccine

- Age 2 years and older: impaired antibody response demonstrated to vaccination with a pneumococcal polysaccharide vaccine
- Not established for children less than 2 years of age
- Excludes the therapy initiated in the hospital setting

Appendix B: Examples of Risk Factors for Bleeding (not all inclusive)

- Undergoing a medical or dental procedure where blood loss is anticipated

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- Comorbidity (eg, peptic ulcer disease, hypertension)
- Mandated anticoagulation therapy
- Profession or lifestyle predisposes patient to trauma (eg, construction worker, fireman, professional athlete)

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