

# Local Coverage Determination (LCD) for Intravenous Immune Globulin (L29205)

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## Contractor Information

<b>Contractor Name</b> First Coast Service Options, Inc. <a href="#">Back to Top</a>	<b>Contractor Number</b> 09102	<b>Contractor Type</b> MAC - Part B
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## LCD Information

### Document Information

**LCD ID Number**  
L29205

**Primary Geographic Jurisdiction**  
Florida

**LCD Title**  
Intravenous Immune Globulin

**Oversight Region**  
Region IV

**Contractor's Determination Number**  
J1459

**Original Determination Effective Date**  
For services performed on or after 02/02/2009

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**Original Determination Ending Date**

**Revision Effective Date**  
For services performed on or after 06/14/2011

**Revision Ending Date**

### CMS National Coverage Policy

Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, *italicized* text represents quotation from one or more of the following CMS sources:

Medicare Claims Processing Transmittal 507, CR 3745, dated March 18, 2005  
CMS Manual System, Pub 100-03, Medicare National Coverage, Chapter 1, Section 250.3  
CMS Manual System, Pub 100-04, Medicare Claims Processing, Chapter 17, Section 80.6  
CMS Manual System, Pub. 100-04, Medicare Claims Processing, Transmittal 1482, CR 5980, dated March 21, 2008  
Transmittal 1261 (Change Request 5635, dated 06/01/2007)  
Transmittal 2045, Change Request 7147, dated September 10, 2010  
Social security Act Section 1861 (t) (2) (b)

### Indications and Limitations of Coverage and/or Medical Necessity

Intravenous Immune Globulin (IVIG) is a solution of human immunoglobulin specifically prepared for intravenous infusion. Immunoglobulin contains a broad range of antibodies that specifically act against bacterial and viral antigens.

The use of intravenous immune globulin should be reserved for patients with serious defects of antibody function. The goal is to provide immunoglobulin G (IgG) antibodies to those who lack them. Medicare will provide coverage for intravenous immune globulin when it is used in treatment of the following conditions:

## 1. Immunodeficiency Disorders

### a.) Primary Humeral Immunodeficiency Syndromes

IVIG is indicated for the treatment of patients with primary immunodeficiency syndromes such as common variable immunodeficiency (CVID), congenital agammaglobulinemia (X-linked agammaglobulinemia), severe combined immunodeficiency (SCID), X-linked immunodeficiency with hyperimmunoglobulin M (IgM), and Wiskott-Aldrich syndrome to replace or boost immunoglobulin G (IgG).

· Common variable immunodeficiency (CVID), also known as acquired hypogammaglobulinemia, adult-onset hypogammaglobulinemia, and dysgammaglobulinemia, is characterized by reduced serum immunoglobulins, impaired antibody responses, and heterogenous clinical features. It is a rare syndrome, affecting one in 50,000 to one in 200,000 people. In most patients, the onset is in the second or third decade of life. The most common clinical presentation of CVID is an increased susceptibility to infection. Because patients with CVID are predisposed to chronic lung disease and pulmonary deterioration as a result of chronic or subclinical infection, early recognition of the diagnosis and initiation of the IVIG therapy are critical. Patients with CVID can also develop a variety of autoimmune and inflammatory disorders and are also at risk for inflammatory bowel disease.

Once the diagnosis of CVID is suspected based on clinical presentation, laboratory confirmation should be made. A low serum IgG level is the most consistent laboratory abnormality in CVID, with most patients having concurrent deficiencies of IgA and IgM. However, there are rare instances when a patient will have normal IgG levels. Therefore, the serum immunoglobulin measurement alone does not establish a diagnosis of CVID. A definitive diagnosis of CVID is established when a patient does not demonstrate an antibody response or rejection to immunization with protein antigens (e.g., tetanus) or carbohydrate antigens (e.g., pneumococcal capsular polysaccharides such as Pneumovax).

Medicare requires the following diagnostic evidence to support a diagnosis of CVID:

- Laboratory reports demonstrating an IgG level of less than 400 mg/dl for the assay utilized, and lack of response to immunization (see below);

**OR**

- An IgG level greater than or equal to 400mg/dl with evidence of recurrent severe infections with documented antibiotic therapy and lack of response to immunization (see below);
- Laboratory reports demonstrating a lack of ability to produce an antibody response to a protein antigen (e.g., tetanus) or one of the polysaccharide antigens (e.g., Pneumococcal polysaccharide or H. Influenza type B). Two or more immunizations should have been given in the 12 months prior to laboratory assessment of antibody response. The exception maybe when a severe adverse reaction has occurred with the last immunization and two have been given over 12 month or longer interval. Pneumococcal titers are measured differently among different laboratories with some measuring 4, 5, 6, 12, or 14 serotypes. An adequate response of the serotypes tested should include a two to three fold increase in titers in at least 50 percent of the serotypes.

*The only exception to Functional Antibody Testing criteria would be for patients who had this diagnosis prior to the introduction of this laboratory technology. In this situation, low total IgG values would be important in supporting the diagnosis of B-cell or humeral immune deficiency for this patient population.*

Medicare will not provide reimbursement for the initiation or continuation of intravenous immune globulin therapy based solely on a low IgG value, there must be a demonstrated lack of ability to produce an adequate antibody response to protein or carbohydrate antigens. There is no scientific rationale for IVIG therapy in patients with normal humeral immunity but with recurrent infections. The use of IVIG for recurrent viral upper respiratory infection will not be considered medically reasonable and necessary. Sinopulmonary disease which merits the use of IVIG is defined as a documented pneumonia, bronchiectasis, chronic bronchitis, recurrent bacterial or mycoplasma bronchitis, pneumonitis and documented episodes of acute bacterial sinusitis requiring extensive and/or recurrent courses of antibiotics. The goal of using IVIG therapy in this situation to prevent progressive lung disease and avoid other serious bacterial infections including meningitis, sepsis, solid organ abscess, osteomyelitis, or other bacterial infection of sufficient severity to merit hospitalization

When IVIG is indicated in immunodeficient individuals (as defined above), with recurrent or chronic bacterial sinusitis, the medical record must document findings diagnostic of, or highly suggestive of, recurrent or chronic bacterial sinus infection. Such findings may include, but are not limited to, fever, unilateral purulent nasal discharge and unilateral facial pain." Absence of these findings will not preclude the use of IVIG, however, documentation will be considered insufficient to justify medical necessity when antibiotic therapy is prescribed routinely during the first few days of symptoms in the absence of these findings, or in the instance where antibiotic therapy is prescribed by phone without the benefit of an examination by a physician (or qualified non-physician practitioner). IVIG is never indicated and therefore not reasonable and necessary for the treatment of simple rhinosinusitis, even in immunodeficient individuals.

#### Dosage Guidelines:

The dosing regimen for patients with CVID is not standardized, but is based primarily on the clinical response. Generally, checking trough levels of IgG and functional antibody levels are not medically necessary more frequently than every 3-6 months. A patient will generally receive initial IVIG doses of 400-600 mg/kg every 3-4 weeks titrating the dose and interval to achieve serum trough levels of at least 500 mg/dl or 300 mg/dl above the baseline IgG level. Documentation should support the rationale for a serum trough level greater than 300 mg above the baseline IgG. IVIG replacement in these patients is usually life-long.

Maintenance doses exceeding the 400-600 mg/kg range may be covered, but only if the desired clinical response to 400-600 mg/kg is clearly documented as inadequate.

- Congenital agammaglobulinemia (X-linked agammaglobulinemia) is an inherited deficiency that appears in the first 3 years of life and occurs in one out of 10,000 people. Quantitative immunoglobulins show marked deficits or absence of all five immunoglobulin classes. Peripheral blood B-lymphocytes are usually absent.
- Severe combined immunodeficiency (SCID) is a rare and fatal inherited syndrome that has an incidence of approximately one in 1,000,000 people. The typical case involves an infant less than one year of age. The lymphocyte counts are significantly below normal, the levels of B- and T-lymphocytes are absent or below normal, the lymphocyte response to mitogen is absent or below normal, and the quantitative measurements of IgG, IgA, and IgM show marked deficits.
- X-linked immunodeficiency with hyperimmunoglobulin M (IgM) is similar to X-linked agammaglobulinemia, however, these patients sometimes have lymphoid hyperplasia. The concentrations of serum IgG, IgA, and IgE are very low, whereas the serum IgM concentration is either normal or, more frequently, greatly elevated and polyclonal.
- Wiskott-Aldrich syndrome is an X-linked recessive syndrome characterized by eczema, thrombocytopenia purpura with normal-appearing megakaryocytes but small defective platelets, and undue susceptibility to infection. Patients usually present during infancy. Survival beyond the teens is rare.

For congenital agammaglobulinemia (X-linked agammaglobulinemia), severe combined immunodeficiency (SCID), X-linked immunodeficiency with hyperimmunoglobulin M (IgM), and Wiskott-Aldrich syndrome, the dosage variability is based on a patient's condition and disease type, providers must adhere to the current clinical standard of practice and recommended dosage in current literature. Any time there is a departure from the standard dosing, the rationale for this must be documented in the medical record.

#### Dosage Guidelines:

- A patient will generally receive initial IVIG doses of 400-600 mg/kg every 3-4 weeks titrating the dose and interval to achieve serum trough levels of at least 500 mg/dl or 300 mg/dl above the baseline IgG level. Documentation should support the rationale for a serum trough level greater than 300 mg above the baseline IgG. IVIG replacement in these patients is usually life-long.

- Maintenance doses exceeding the 400-600 mg/kg range may be covered, but only if the desired clinical response to 400-600 mg/kg is clearly documented as inadequate.

## **b.) Idiopathic Thrombocytopenic Purpura (ITP)**

Idiopathic thrombocytopenic purpura (ITP) is a decrease in the number of circulating platelets in absence of toxic exposure or other disease(s) associated with a low platelet count. ITP occurs as an effect of peripheral platelet destruction. Acute ITP is a disease of childhood, which usually follows an acute infection and has spontaneous resolution within 2 months. Chronic ITP is a disease that persists longer than 6 months without a specific cause. Chronic ITP is usually seen in adults and persists for months to years. In patients with known ITP high dose parenteral glucocorticoids, and IVIG may be appropriate with or without platelet transfusions.

- IVIG is not medically necessary in the following scenarios

- o Children with platelet counts > 30,000/mm that are asymptomatic or have only minor purpura.

- o Adults with a platelet count > 50,000/mm

- IVIG may be medically necessary in

- o Management of acute bleeding, due to severe thrombocytopenia (platelet counts usually less than 30,000/ul);

- o In patients with severe thrombocytopenia (platelet counts less than 20,000/ul) considered to be at risk for intracerebral or other hemorrhage, especially in the presence of predisposing co-morbidities (hypertension, peptic ulcer disease). These risk factors must be clearly documented in the medical record.

- o To increase platelet counts prior to invasive surgical procedures, e.g., splenectomy

Dosage guidelines: For acute ITP: (a) 1,000 mg/kg body weight given on one or two consecutive days, or (b) 400 mg/kg body weight given on each of two to five consecutive days.

For chronic refractory ITP, IVIG is covered for persons meeting all of these criteria:

- Prior treatment with corticosteroids and splenectomy.

- Duration of illness of greater than six months.

- Age of 10 years or older.

- No concurrent illness/disease explaining thrombocytopenia, and,

- Platelet counts persistently at or below 20,000/ul.

Dosage guideline for chronic ITP:

- Dosage Guidelines for this disease process include (a) initial 1 or 2 g/kg body weight, usually administered no more frequently than every two to six weeks, as determined by serial platelet counts.

- Maintenance - 800-1,000 mg/kg body weight, usually administered no more frequently than every two to six weeks, as determined by serial platelet counts.

## **c.) ITP in Patients with Human Immunodeficiency Virus (HIV) Disease**

ITP can be associated with HIV disease, the mechanism of which is thought to be similar to individuals who are HIV negative. Antiretroviral therapy is the single best treatment to reverse abnormalities in HIV infection.

IVIg is indicated for ITP and HIV-associated thrombocytopenia **only** under the following circumstances:

- o When administered preoperatively for patients undergoing invasive surgical procedures, such as, splenectomy, who have platelet counts <20,000.
- o For patients with platelet counts <30,000 who have active bleeding.
- o For pregnant women with platelet counts <10,000 in the third trimester.
- o For pregnant women with platelet counts 10,000-30,000 who are bleeding.

The duration of treatment is generally a short course of 3 to 5 days. Like any service reimbursed by Medicare, treatments exceeding this duration are subject to medical review.

#### **d.) IVIG in Children with Human Immunodeficiency Virus (HIV) Disease who do not have ITP**

IVIg may be medically necessary to reduce significant bacterial infections when all three primary criteria and one of the secondary criteria are met:

##### **Primary criteria:**

1. Age less than 13 years
2. IgG level less than 400 mg/dl
3. Entry CD4+ lymphocyte cell count is greater than or equal to 200/mm<sup>3</sup>

##### **Secondary criteria:**

1. Two or more bacterial infections in a 1-year period despite antibiotic chemoprophylaxis with TMP-SMZ or another active agent
2. The child has received two doses of measles vaccine and lives in a region with a high prevalence of measles
3. The child has chronic bronchiectasis whose immunological response is suboptimal to antimicrobial and pulmonary therapy
4. The child has immune abnormalities with symptomatic or asymptomatic HIV, as evidenced by a lack of ability to produce an antibody response to immunization with protein antigens (e.g., tetanus) or carbohydrate antigens (e.g., pneumococcal capsular polysaccharides. such as, Pneumovax).

Dosage guideline: For pediatric (HIV) Infection is 400-mg/kg body weight given every 28 days to prevent serious bacterial infection. Claims reimbursed by Medicare with dosages in larger or decreased frequency of administration are subject to medical review, like any service.

## **2. Neurological Disorders**

IVIg is indicated for the treatment of patients with neurological disorders such as Guillain-Barre' syndrome, relapsing-remitting multiple sclerosis, chronic inflammatory demyelinating polyneuropathy (and variant syndromes such as Multifocal Motor Neuropathy), myasthenia gravis, refractory polymyositis, and refractory dermatomyositis. However, it is noted that not all patients with these diagnoses require treatment with IVIG.

IVIg therapy will only be considered medically reasonable and necessary for these neurological disorders when there is evidence of rapid progression of the disease or relapse or when other forms of treatment have failed.

For each of these diseases, the diagnosis of the disorder must be unequivocal. There must be clinical (history, quantitative examination), electrophysiological motor-sensory nerve conductions, electromyography (EMG), cerebrospinal fluid (CSF), and when necessary, biopsy (muscle-nerve) data to support the diagnosis.

Once IVIG treatment is initiated, meticulous documentation of progress is required. If there is initial improvement, and continued treatment is necessary, quantitative assessment to monitor the progress is required (e.g., ADL measurements). Changes in these parameters must be clearly documented. Subjective or experiential improvement alone is insufficient to either continue IVIG or to expect coverage.

There must be evidence of an attempt to wean the dosage when improvement has occurred. This “weaning” may be either a reduction in the frequency of administration and/or a reduction in dosage. There must be an attempt to stop the IVIG infusion if improvement is sustained with dosage reduction. If improvement does not occur with IVIG, then IVIG therapy is not indicated and should be discontinued.

· Guillain-Barre’ syndrome is an acute, frequently severe, and fulminant polyneuropathy that occurs at a rate of approximately one case in a million per month. An infection generally precedes the onset of neuropathy by 1 to 3 weeks. A small proportion occurs within 1 to 4 weeks of a surgical procedure. The clinical features include ascending paralysis, areflexia (absence of reflexes), possibly ascending sensory loss, and high spinal fluid protein levels. Intravenous administration of high-dose immunoglobulin given over 5 days has been proven effective.

Dosage Guidelines: 1,000 mg/kg body weight daily for two days; or 400 mg/kg body weight daily for five days.

· Multiple Sclerosis that is relapsing-remitting is characterized by unpredictable recurrent attacks of neurological dysfunction. Attacks generally evolve over days to weeks and may be followed by complete, partial, or no recovery. Patients with a relapsing-remitting course experience no progression of neurological impairment between attacks. The age of onset is generally between 15 and 60 years. Dosage

Dosage Guidelines: Usual dosing is 200-400 mg/kg every 4 weeks.

· Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) includes a group of chronic progressive or relapsing, inflammatory demyelinating peripheral neuropathies that are manifested by physiological abnormalities such as slowed nerve conduction velocities or dispersion of compound muscle action potentials. Clinical features include chronic progressive or relapsing weakness with sensory loss and high spinal fluid protein levels. In addition, IVIG may be approved for CIDP patients, who had no response to corticosteroids or have contraindications to steroids. The physician will be required to substantiate the contraindication(s) in the medical record.

Dosage Guidelines for:

o Initial therapy - 400 mg/kg body weight per day for five days

o Maintenance therapy - 250-400 mg/kg body weight no more frequently than every two weeks.

· Myasthenia gravis is a disorder of neuromuscular transmission characterized by fluctuating weakness and fatigability. It is attributed to blockage of the acetylcholine receptor at the neuromuscular end-plates by anti-acetylcholine receptor autoantibodies. The diagnosis of myasthenia gravis is confirmed by a positive Tensilon test. Anticholinesterase drugs or thymectomy are generally the first treatments for this condition

IVIG is indicated in those patients with myasthenia gravis who are either refractory to corticosteroids over a 6 week period; have been unable to successfully taper corticosteroids below moderately high doses; or develop severe side effects due to steroid therapy; and have also failed at least one immunosuppressive agent (e.g., azathioprine, Methotrexate, cyclophosphamide, cyclosporine). Length of treatment with IVIG will vary due to the remittent and recurrent nature of this condition.

Dosage Guidelines: At this time, there is no clearly established dosing regimen, although many studies have reported success with a dose of 400 mg/kg weight per day for five days.

· Polymyositis and dermatomyositis are conditions in which the skeletal muscle is damaged by a nonsuppurative inflammatory process dominated by lymphocytic infiltration. Polymyositis begins acutely or insidiously with muscle weakness, tenderness, and discomfort. Proximal muscles more often than distal muscles are affected. Dermatomyositis involves characteristic skin changes that may precede or follow the muscle syndrome and include a localized or diffuse erythema, maculopapular eruption, scaling eczematoid dermatitis, or rarely, an exfoliative dermatitis. The classic lilac-colored (heliotrope) usually manifested on the eyelids, bridge of the nose, cheeks (butterfly distribution), forehead, chest, elbows, knees and knuckles, and around the nailbeds. Periorbital edema is frequent.

Diagnostic studies to support a diagnosis of polymyositis or dermatomyositis include an elevated creatine phosphokinase (CPK), an abnormal electromyography (EMG), and/or an abnormal muscle biopsy.

IVIg is indicated in those patients with polymyositis or dermatomyositis who are either refractory to corticosteroids over a 6 week period; have been unable to successfully taper corticosteroids below moderately high doses; or develop severe side effects due to steroid therapy; and have also failed at least one immunosuppressive agent (e.g., azathioprine, Methotrexate, cyclophosphamide, cyclosporine). Length of treatment with IVIg will vary due to the remittent and recurrent nature of these conditions. The need for continuation of IVIg must be documented and would be demonstrated by continued decreased muscle strength, elevated CPKs, and/or EMG abnormalities.

Dosage Guidelines: 1,000 mg/kg body weight daily for two days every four weeks or 400mg/kg body weight for five days every four weeks in patients intolerant of high-dose therapy.

Note: For patients who are unable to tolerate corticosteroid or immunosuppressive agents, or in the rare instance that these agents are contraindicated for the patient, treatment for polymyositis or dermatomyositis will be covered only if medical record documentation clearly indicates the reason that the patient cannot take the corticosteroid or immunosuppressive agent

## **Other Disorders**

### **a.) Chronic Lymphocytic Leukemia**

Chronic lymphocytic leukemia is a disorder of accumulation of mature-appearing lymphocytes in blood marrow and other organs. The symptoms usually develop gradually and include fatigue, shortness of breath with activity, weight loss, or frequent infections of the skin, lungs, kidneys, or other sites. Recurrent infections are a frequent complication.

IVIg is indicated for the prevention of recurrent bacterial infections and an immunoglobulin G (IgG) level of less than 600 mg/dl in patients with hypogammaglobulinemia associated with B-cell chronic lymphocytic leukemia (CLL) in order to help correct the patient's immunity deficiency.

Dosage guideline for this disease process is 400 mg/kg body weight given every 3 – 4 weeks.

### **b.) Bone Marrow Transplantation (BMT)**

IVIg is indicated to prevent the risk of acute graft-versus-host disease, associated interstitial pneumonia (infectious or idiopathic) and infections (e.g., cytomegalovirus infections [CMV], varicella-zoster virus infection, and recurrent bacterial infection) after BMT in patients 20 years of age or older during the first 100 days after transplantation. It is not indicated in BMT patients younger than 20 years of age, nor is it recommended for allogeneic transplants.

Dosage guideline is 500 mg/kg body weight given on days –7 and –2 pre-transplantation, then weekly through day 90 post-transplantation.

### **c.) Kawasaki Disease (mucocutaneous Lymph Node Syndrome)**

Kawasaki disease is an acute childhood vasculitis, the diagnosis of which is made based on clinical criteria. These criteria include fever of at least five (5) days duration and at least four (4) of the following: (1) polymorphic exanthem, (2) changes in the oropharynx such as fissured lips and strawberry tongue without discrete lesions, (3) changes in the extremities such as edema of the hands and feet and erythema of the palms and soles, (4) bilateral conjunctival infection without exudate, and (5) cervical lymphadenopathy, often singular and unilateral. IVIg is indicated for the treatment of Kawasaki disease when used in conjunction with aspirin.

Dosage guideline: 400 mg/kg body weight for four (4) consecutive days or a single infusion of 2,000 mg/kg body weight.

#### d.) Autoimmune Hemolytic Anemia

Autoimmune hemolytic anemia is an acquired anemia induced by the binding of autoantibodies and/or a complement to the red cells. Signs and symptoms may include, but are not limited to, weakness, fatigue, exertional dyspnea, pallor, jaundice, tachycardia, splenomegaly, hepatomegaly, and anemia. In the majority of patients, this disease can be controlled by steroid therapy alone, by splenectomy or by a combination of these.

In this condition, intravenous immune globulin is indicated only for those patients who have failed to respond to other forms of therapy and/or require rapid cessation of hemolysis due to severe or life threatening manifestations of this condition. Duration of treatment is generally a short course of 3-5 weeks. Realizing dosage may vary based on patient's individual situation; dosage must be in keeping with the recommended current literature and standard of practice.

Dosage guidelines: Realizing dosage may vary based on a patient's individual situation, the dosage must be in keeping with the recommended dosage in current literature and the standard of practice. Any time there is a departure from the standard dosing, the rationale for this must be documented in the medical record.

#### e.) Autoimmune Neutropenia

Autoimmune neutropenia is a hematologic disorder in which there is a decreased number of neutrophilic leukocytes in the blood due to an autoimmune mechanism. The disease is usually benign and self-limiting, and treatment beyond antibiotics is not frequently required. Occasionally, however, it is marked by repeated infection. IVIG may be recommended for the treatment of an absolute neutrophil count less than 800/mm with recurrent bacterial infections.

Dosage guidelines are 1 to 2 g/kg of IVIG over 1 to 2 days.

#### f.) Autoimmune Mucocutaneous Blistering Diseases

Effective October 1, 2002, IVIG is covered for the treatment of biopsy-proven (1) Pemphigus Vulgaris, (2) Pemphigus Foliaceus, (3) Bullous Pemphigoid, (4) Mucous Membrane Pemphigoid (a.k.a., Cicatricial Pemphigoid), and (5) Epidermolysis Bullosa Acquisita for the following patient subpopulations:

1. Patients who have failed conventional therapy;
2. Patients in whom conventional therapy is otherwise contraindicated; or
3. Patients with rapidly progressive disease in whom a clinical response could not be affected quickly enough using conventional agents. In such situations IVIG therapy would be given along with conventional treatment(s) and the IVIG would be used only until the conventional therapy could take effect.

Dosage guidelines: 2,000 mg/kg body weight per month divided into 1 to 5 doses.

In addition, IVIG for the treatment for autoimmune mucocutaneous blistering diseases must be used only for short-term therapy and not as a maintenance therapy.

Medicare will also consider IVIG medically reasonable and necessary for the following off-label indication:

- Stiff-man syndrome. Please refer to the utilization guidelines and documentation requirements for specific criteria related to coverage.
- Hypogammaglobulinemia with NNI (non neutropenic infection) induced by certain agents (All criteria must be met):

1. Recent treatment with rituximab in combination with cytotoxic chemotherapy
2. Laboratory proven hypogammaglobulinemia and an absolute neutrophil count over 1,000.
3. Acute infection requiring hospitalization or an infection lasting over 2 weeks in spite of antibiotics or an infection relapsing immediately after discontinuation of antibiotics.
4. Dose: 400-600 mg/kg one time that can be repeated at a standard interval based on laboratory assessment of IG levels and persistence of non neutropenic infection.

## Coding Information

### Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

### Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

99999	Not Applicable
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### CPT/HCPCS Codes

#### GroupName

**C9270 - Injection, immune globulin (Gammaplex), intravenous, non-lyophilized (e.g., liquid), 500 mg (For Ambulatory Surgical Centers only)**

J1459	INJECTION, IMMUNE GLOBULIN (PRIVIGEN), INTRAVENOUS, NON-LYOPHILIZED (E.G. LIQUID), 500 MG
J1561	INJECTION, IMMUNE GLOBULIN, (GAMUNEX), INTRAVENOUS, NON-LYOPHILIZED (E.G. LIQUID), 500 MG
J1566	INJECTION, IMMUNE GLOBULIN, INTRAVENOUS, LYOPHILIZED (E.G. POWDER), NOT OTHERWISE SPECIFIED, 500 MG
J1568	INJECTION, IMMUNE GLOBULIN, (OCTAGAM), INTRAVENOUS, NON-LYOPHILIZED (E.G. LIQUID), 500 MG
J1569	INJECTION, IMMUNE GLOBULIN, (GAMMAGARD LIQUID), INTRAVENOUS, NON-LYOPHILIZED, (E.G. LIQUID), 500 MG
J1572	INJECTION, IMMUNE GLOBULIN, (FLEBOGAMMA/FLEBOGAMMA DIF), INTRAVENOUS, NON-LYOPHILIZED (E.G. LIQUID), 500 MG

### ICD-9 Codes that Support Medical Necessity

042*	HUMAN IMMUNODEFICIENCY VIRUS (HIV) DISEASE
204.10	CHRONIC LYMPHOID LEUKEMIA, WITHOUT MENTION OF HAVING ACHIEVED REMISSION
204.11	LYMPHOID LEUKEMIA CHRONIC IN REMISSION
204.12	CHRONIC LYMPHOID LEUKEMIA, IN RELAPSE
279.00*	HYPOGAMMAGLOBULINEMIA UNSPECIFIED
279.04	CONGENITAL HYPOGAMMAGLOBULINEMIA
279.05	IMMUNODEFICIENCY WITH INCREASED IGM
279.06	COMMON VARIABLE IMMUNODEFICIENCY
279.12	WISKOTT-ALDRICH SYNDROME
279.2	COMBINED IMMUNITY DEFICIENCY
283.0	AUTOIMMUNE HEMOLYTIC ANEMIAS
287.31	IMMUNE THROMBOCYTOPENIC PURPURA
287.32	EVANS' SYNDROME

287.5*	THROMBOCYTOPENIA UNSPECIFIED
288.09	OTHER NEUTROPENIA
333.91	STIFF-MAN SYNDROME
340	MULTIPLE SCLEROSIS
357.0	ACUTE INFECTIVE POLYNEURITIS
357.81	CHRONIC INFLAMMATORY DEMYELINATING POLYNEURITIS
358.00 - 358.01	MYASTHENIA GRAVIS WITHOUT (ACUTE) EXACERBATION - MYASTHENIA GRAVIS WITH (ACUTE) EXACERBATION
446.1	ACUTE FEBRILE MUCOCUTANEOUS LYMPH NODE SYNDROME (MCLS)
694.4	PEMPHIGUS
694.5	PEMPHIGOID
694.60 - 694.61	BENIGN MUCOUS MEMBRANE PEMPHIGOID WITHOUT OCULAR INVOLVEMENT - BENIGN MUCOUS MEMBRANE PEMPHIGOID WITH OCULAR INVOLVEMENT
694.8	OTHER SPECIFIED BULLOUS DERMATOSES
710.3	DERMATOMYOSITIS
710.4	POLYMYOSITIS
996.85	COMPLICATIONS OF TRANSPLANTED BONE MARROW
V15.9*	UNSPECIFIED PERSONAL HISTORY PRESENTING HAZARDS TO HEALTH
V49.89*	OTHER SPECIFIED CONDITIONS INFLUENCING HEALTH STATUS
V87.41*	PERSONAL HISTORY OF ANTINEOPLASTIC CHEMOTHERAPY

**\* Dual Diagnosis requirement:**

For the pediatric population less than thirteen, there is a requirement for a dual diagnosis; 042 Human immunodeficiency virus [HIV] disease plus V15.9 Unspecified personal history presenting hazards to health OR 042 Human immunodeficiency virus [HIV] disease plus V49.89 other specified conditions influencing health status.

For adults  $\geq 13$  there is a dual diagnosis requirement for administering IVIG for thrombocytopenia associated with HIV disease; primary diagnosis of 287.5 Thrombocytopenia, unspecified and a secondary diagnosis of 042 Human immunodeficiency virus [HIV] disease.

For patients treated for Hypogammaglobulinemia due to non neutropenic infection a dual diagnosis of 279.00 Hypogammaglobulinemia, unspecified and V87.41 Personal history of antineoplastic chemotherapy is required.

**Diagnoses that Support Medical Necessity**

See Diagnoses That Support Medical Necessity

**ICD-9 Codes that DO NOT Support Medical Necessity**

All diagnoses not listed under the 'Diagnoses that Support Medical Necessity'

XX000	Not Applicable
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**ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

**Diagnoses that DO NOT Support Medical Necessity**

N/A

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**General Information**

**Documentations Requirements**

Medical record documentation maintained by the treating physician must clearly document the medical necessity to initiate intravenous immune globulin therapy and the continued need thereof. Required documentation of medical necessity includes but is not limited to:

- History and physical; supporting physician rationale (current within the last 12 months)
- Physicians orders not more than 30 days old to date of service specifying dose, frequency, administration route and duration office/progress note(s); that clearly document the necessity for both initiation and continuation of IVIG
- ICD-9-CM diagnosis codes supporting medical necessity must be submitted with each claim. Claims submitted without such evidence will be denied as not medically necessary.
- Documentation supporting the diagnosis
- A copy of applicable lab and procedure test results
- An accurate weight in kilograms should be documented prior to each infusion since the dosage is based mg/kg/dosage; and
- Prior failed conventional therapies or documentation that conventional therapy is contraindicated
- Medication administration records

In addition, medical record documentation maintained by the treating physician for claims billed with a diagnosis of CVID must include the following: the initial presenting IgG levels and evidence that the patient has been vaccinated with Pneumovax and has had pre-and post-vaccine pneumococcal antibody titers performed to demonstrate the lack of ability to produce an antibody response to protein or carbohydrate antigens.

Documentation must include dual diagnoses listed for the underlying condition that demonstrates the medical necessity for intravenous immune globulin therapy.

Documentation must include a statement regarding lack of response to protein antigen.

For patients with HIV disease and ITP the medical record must specifically reflect that the patient has a platelet count of less than 30,000 and is actively bleeding. This must be supported by applicable lab results.

When IVIG is indicated in immunodeficient individuals (as defined above), with recurrent or chronic bacterial sinusitis, the medical record must document findings diagnostic of, or highly suggestive of, recurrent or chronic bacterial sinus infection. Such findings may include, but are not limited to, fever, unilateral purulent nasal discharge and unilateral facial pain." Absence of these findings will not preclude the use of IVIG, however, documentation will be considered insufficient to justify medical necessity when antibiotic therapy is prescribed routinely during the first few days of symptoms in the absence of these findings, or in the instance where antibiotic therapy is prescribed by phone without the benefit of an examination by a physician (or non-physician practitioner). IVIG is never indicated and therefore not reasonable and necessary for the treatment of simple rhinosinusitis, even in immunodeficient individuals. The medical record must substantiate the use of prolonged and/or recurrent antibiotic therapy in the treatment of these infections. Radiographic documentation of mucosal thickening of the paranasal sinuses, in and of itself, is not specific to bacterial sinusitis and as a sole finding will not be consideration sufficient documentation to support the use of IVIG.

For stiff-man syndrome documentation must support that the patient is under the care of a physician who is competent in the diagnosis of the syndrome. The current defined criteria for the diagnosis must be met.. Patient would have demonstrated failed conservative treatment (such as benzodiazapines). The record must show the patients response to therapy after initial treatment (0 and 1 month). Documentation must support objective response for continued coverage each month or at longer intervals.

All documentation must support the criteria for coverage as set forth in the "Indications and Limitations of Coverage and/or Medical Necessity" section of this policy.

## Appendices

**Utilization Guidelines** Where no dosage guidelines are provided in this LCD and that realizing dosage may vary based on a patient's individual situation, the dosage must be in keeping with the recommended dosage in current literature and the standard of practice. Any time there is a departure from the standard dosing, the rationale for this must be documented in the medical record.

For stiff man syndrome initial coverage is limited to up to 2g of immune globulin per kilogram of body weight per month.

### Sources of Information and Basis for Decision

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**Advisory Committee Meeting Notes** This Local Coverage Determination (LCD) does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the contractor, this LCD was developed in cooperation with the advisory groups, which includes representatives from numerous societies.

**Start Date of Comment Period**

**End Date of Comment Period**

**Start Date of Notice Period** 04/01/2011

**Revision History Number** 3

**Revision History Explanation** Revision Number: 3

Start Date of Comment Period:N/A  
Start Date of Notice Period:07/01/2011  
Revised Effective Date: 06/14/2011

LCR B2011-062  
June 2011 Connection

Explanation of Revision: A revision was made to clarify language for the diagnosis of CVID under the "Indications and Limitations of Coverage and/or Medical Necessity" section for subsection "a.) Primary Humeral Immunodeficiency Syndromes." The effective date of this revision is based on date of service.

Revision Number 2  
Start Date of Comment Period:N/A  
Start Date of Notice Period:04/01/2011  
Revised Effective Date 04/07/2011

LCR B2010-041  
March 2011 Update

Explanation of Revision: This LCD was revised to add diagnosis code 279.00 Hypogammaglobulinemia, unspecified and V87.41 Personal history of antineoplastic chemotherapy under the "ICD-9 Codes that Support Medical Necessity" section of the LCD and the "Dual Diagnosis requirement" was added. Also added under the "Indications and Limitations of Coverage and/or Medical Necessity" section, new off label indications for patients with hypogammaglobulinemia with NNI (non neutropenic infection) induced by recent chemotherapy with rituxamab. In addition, updated the "Sources of Information and Basis for Decision" section and "CMS National Coverage Policy" section. The effective date of this revision is based on date of service.

Revision Number:1  
Start Date of Comment Period:N/A  
Start Date of Notice Period:11/01/2010  
Revised Effective Date:10/01/2010

LCR B2010-072  
October 2010 Update

LCD revised in accordance with CMS Change Request 7147, dated 09/10/2010 to add HCPCS code C9270 to the CPT/HCPCS Codes section of the LCD. In addition, updated the "CMS National Coverage Policy" and "Sources of Information and Basis for Decision" sections of the LCD. The effective date of this revision is for claims processed on or after 10/04/2010, for dates of service on or after 10/01/2010.

Revision Number:Original  
Start Date of Comment Period:N/A  
Start Date of Notice Period:12/04/2008  
Revised Effective Date:02/02/2009

LCR B2009-  
December 2008 Bulletin

This LCD consolidates and replaces all previous policies and publications on this subject by the carrier predecessors of First Coast Service Options, Inc. (Triple S and FCSO).

For Florida (00590) this LCD (L29205) replaces LCD L5737 as the policy in notice. This document (L29205) is effective on 02/02/2009.

### Reason for Change

### Related Documents

This LCD has no Related Documents.

### LCD Attachments

[Coding Guidelines](#)

[Coding Guidelines effective 10/01/2010](#)

[Coding Guidelines effective 04/07/2011](#)

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## All Versions

Updated on 06/15/2011 with effective dates 06/14/2011 - N/A

[Updated on 03/09/2011 with effective dates 04/07/2011 - 06/13/2011](#)

[Updated on 10/21/2010 with effective dates 10/01/2010 - 04/06/2011](#)

[Updated on 10/21/2010 with effective dates 10/01/2010 - N/A](#)

[Updated on 12/19/2008 with effective dates 02/02/2009 - 09/30/2010](#)

[Updated on 11/30/2008 with effective dates 02/02/2009 - N/A](#)

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