



**INLAND EMPIRE HEALTH PLAN**

This policy has been developed through review of medical literature, consideration of medical necessity, generally accepted medical practice standards, and approved by the IEHP Pharmacy and Therapeutics Subcommittee.

**Drug:** Immune Globulins (IVIG)

**Class:** Biologics

**Formulary Medication:** N/A

**Effective Date:** November 2009

**Policy/Criteria:**

FDA Approve Indications for IVIG products (CBER)

<b>Brand</b>	<b>PID</b>	<b>CLL</b>	<b>ITP</b>	<b>Kawasaki Syndrome</b>	<b>Hepatitis A, Measles, Varicella, Rubella</b>	<b>Other</b>
Carimune NF	√		√			
Flebogamma Flebogamma 5% DIF	√					
Gammar – P I.V.	√					
Gamimune N	√		√			√*
Gammagard S/D 10%	√	√	√	√		
Gammagard S/D 5% IgA < 1 mcg/ml	√	√	√	√		
Gammagard Liquid	√					
Gamunex	√		√			√*
Iveegam EN	√			√		
Octagam	√					
Panglobulin NF	√		√			
Polygam	√		√			
Privigen	√		√			
Venoglobulin-S	√		√	√		
Vivaglobin (SCIG)	√					

PID = primary immune deficiency, CLL = chronic lymphocytic leukemia, ITP = idiopathic thrombocytopenic purpura,

\* Other = includes chronic inflammatory demyelinating polyneuropathy (CIDP), bone marrow transplant, pediatric HIV-1

1. Due to the various dosage forms and adverse events profile IVIG products will be covered based on approved indications
2. Off-label indications where anecdotal evidence has shown efficacy and where clinical trials may not be appropriate due to rarity of the disease or ethics: Guillan-Barre syndrome, relapsing remitting multiple sclerosis, dermatomyositis, multifocal motor neuropathies, and chronic demyleanating polyneuropathies
3. Documented failure of first line treatment is required for approval of IVIG
4. The PA criteria will approve use of immune globulin when prescribed for an FDA approved label indication and will allow use for unlabeled or “off-label” condition if evidence for efficacy is found in at least pharmaceutical compendia: United States Pharmacopeia Drug Information (USPDI), Drug Information for Healthcare Professional, American Hospital Formulary Service (AHFS) Drug Information, or Micromedix DrugDex. The Clinical Review process will also consider information submitted by the prescriber supporting the intended off label use in form of 2 supporting journal articles from nationally recognized peer reviewed journals (ex. New England Journal of Medicine)
5. If switching from IVIG to Vivaglobin, Vivaglobin dose should be adjusted
6. Lab Tests/Monitoring Parameters:
  - a. Baseline renal (BUN & Creatinine Clearance)
  - b. Platelets and Hgb levels
  - c. Immunoglobulin levels (Ig)
  - d. IgA deficiency or IgA antibodies
7. Duration of treatment and Prior authorization depends on individual indication:
  - a. Primary Immune Deficiency: Re-evaluate treatment every 3 months
  - b. Kawasaki’s Syndrome: Re-evaluate treatment monthly
  - c. Chronic lymphocytic leukemia: Re-evaluate treatment every 3 months
  - d. Idiopathic thrombocytopenic purpura: Re-evaluate treatment monthly
  - e. Hepatitis A: Re-evaluate treatment monthly
  - f. Measles: Re-evaluate treatment monthly
  - g. Dermatomyositis: Re-evaluate treatment every 3 months

**Dosing Range (\*Dosing will vary between products, please refer to FDA approved label\*):**

- Primary Immune Deficiency
  - o 0.1-0.8 mg/kg every 3-4 weeks
  - o Vivaglobin : 50-200 mg/kg every week
- Chronic lymphocytic leukemia
  - o 0.3-0.6 mg/kg every 3-4 weeks
- Idiopathic thrombocytopenic purpura
  - o 0.8-1 g/kg for 2-3 days
- Kawasaki Syndrome:
  - o 0.4 mg/kg for 4 days
  - o 1-2 g/kg x 1 dose
- Hepatitis A:
  - o 0.02 ml/kg IM x 1 dose
- Measles:
  - o 0.25-0.50 ml/kg IM (max 15 ml) x 1 dose
- Varicella:

- 0.6-1.2 ml/kg x 1 dose
- Rubella:
  - 0.55 ml/kg IM x 1 dose

### **Clinical Evidence:**

1. Immune globulin products are labeled for different indications and due to differences in manufacturing should not be considered identical and/or interchangeable. However, based on mechanism of action the individual products may produce similar clinical effect
2. Recommended infusion rates vary considerably between products
3. There are no clinical studies that compare the various products for efficacy or adverse events
4. Off-label indications where anecdotal evidence has shown efficacy and where clinical trials may not be appropriate due to rarity of the disease or ethics: Guillan-Barre syndrome, relapsing remitting multiple sclerosis, dermatomyositis, multifocal motor neuropathies, and chronic demyleanating polyneuropathies
5. Efficacy and long term outcome of IVIG is comparable to that of Plasma Exchange, but IVIG has less side effects
6. For chronic diseases, such as Primary Immune Deficiency and Chronic Lymphocytic Leukemia, maintenance dosage can be given until IgG level reaches 4-6 g/L
7. IVIG products have a black box warning associated with renal dysfunction, acute renal failure, and osmotic nephrosis. Cases of death have been associated with concomitant usage of IVIG in patients with renal insufficiency
8. IVIG products may contain IgA and is contraindicated in patients with selective IgA deficiency or who possess antibodies to IgA
9. If switching patient from IVIG to Vivaglobin, starting dose should be 1.01-1.37 times higher than current weekly IVIG dose

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