



CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all plans administered by CIGNA Companies including plans administered by Great-West Healthcare, which is now a part of CIGNA.

Subject **Cytomegalovirus Immune Globulin IV (Cytogam®)**

Effective Date 6/15/2009
Next Review Date.....6/15/2010
Coverage Policy Number 5008

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Hyperlink to Related Coverage Policies

INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a participant's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2009 CIGNA

Coverage Policy

CIGNA covers cytomegalovirus immune globulin IV (CytoGam®) as medically necessary for ANY of the following indications:

- prevention of cytomegalovirus (CMV) in patients undergoing kidney, lung, pancreas, heart or other solid organ transplantation (usually in conjunction with other antiviral therapy)
- prevention of CMV in patients undergoing allogeneic bone-marrow transplant
- treatment of CMV pneumonitis in transplant recipients

General Background

FDA Approved Indications

Cytomegalovirus Immune Globulin Intravenous (Human) is indicated for the prophylaxis of cytomegalovirus disease associated with transplantation of kidney, lung, liver, pancreas and heart. In transplants of these organs other than kidney from CMV seropositive donors into seronegative recipients, prophylactic CMV-IGIV should be considered in combination with ganciclovir.

FDA Recommended Dosing

The maximum recommended total dosage per infusion is 150 mg Ig/kg, administered according to the following schedule:

CytoGam Dosing Table

Transplant Type	Post-Transplant Time	Dose
Kidney	Within 72 hours of transplant	150 mg/kg
	2 weeks post transplant	100 mg/kg
	4 weeks post transplant	100 mg/kg
	6 weeks post transplant	100 mg/kg
	8 weeks post transplant	100 mg/kg
	12 weeks post transplant	50 mg/kg
	16 weeks post transplant	50 mg/kg
Liver, Pancreas, Lung, or Heart	Within 72 hours of transplant	150 mg/kg
	2 weeks post transplant	150 mg/kg
	4 weeks post transplant	150 mg/kg
	6 weeks post transplant	150 mg/kg
	8 weeks post transplant	150 mg/kg
	12 weeks post transplant	100 mg/kg
	16 weeks post transplant	100 mg/kg

Cytomegalovirus immune globulin (CMV-IGIV) contains immune globulin G (IgG) antibodies from large volumes of pooled human plasma. The globulin contains a high concentration of antibodies directed against cytomegalovirus (CMV). For persons exposed to CMV, CMV-IGIV can raise relevant antibodies to a sufficient level to attenuate or reduce the incidence of serious CMV disease.

Clinical studies have shown a 50% and 56% reduction in primary CMV disease and serious CMV disease for renal and liver transplant patients, respectively, who were administered CMV-IGIV. For liver transplant patients, the reduction translated further into an improved survival rate. Current label indications for CMV-IGIV include use for the prevention of CMV disease in patients undergoing kidney, lung, liver, or heart transplants who are at risk for primary CMV disease (e.g., a seropositive donor to a seronegative recipient). In all except kidney transplant cases, concurrent use with gancyclovir should be considered. Though the label indications support CMV-IGIV prophylaxis in patients at the greatest risk for primary CMV disease as seronegative recipients, data from randomized controlled trials support the use even in seropositive individuals to reduce the severity, if not the incidence, of CMV disease.

The use of CMV-IGIV as routine prophylaxis in patients undergoing allogeneic bone-marrow transplantation (BMT) remains controversial. Several randomized studies of seronegative patients have failed to demonstrate any benefit from CMV prophylaxis therapy. Nonetheless, in randomized trials of both seronegative and seropositive individuals undergoing BMT, results indicated that there was a lower incidence of CMV disease post-transplant in patients receiving CMV-IGIV than in those who did not receive immune globulin. Patients undergoing autologous BMT are less likely to suffer severe CMV disease and, consequently, routine prophylaxis with CMV-IGIV is not normally warranted for them.

Ongoing Clinical Studies

Congenital or neonatal CMV Infection - CMV-IGIV has been used in a limited number of pregnant women with primary CMV infection in an attempt to treat or prevent congenital CMV infection. There is some evidence from a prospective, uncontrolled study that administration of at least 1 dose of CMV-IGIV to pregnant women with confirmed primary CMV infection and with CMV-positive amniotic fluid may decrease the risk of symptomatic congenital CMV disease in their infants. There also is some evidence from this uncontrolled study that administration of CMV-IGIV (once monthly for 2-7 months) in pregnant women with primary CMV infection but with unknown fetal CMV infection status (i.e., amniocentesis not performed) may decrease the risk of congenital CMV infection. However, additional study is needed to more fully evaluate the possible benefits and risks of passive immunization with CMV-IGIV in such situations.

CMV Infection in HIV-Infected Individuals - The potential role for CMV-IGIV in the prevention or treatment of CMV infection or disease in individuals with human immunodeficiency virus (HIV) infection has not been evaluated to date. Current recommendations of the Prevention of Opportunistic Infections Working Group of the US Public Health Service and the Infectious Disease Society of America (USPHS/IDSA) regarding CMV

prophylaxis in HIV-infected adults and children include the use of antiviral agents (e.g., ganciclovir, foscarnet, cidofovir, fomivirsen) in certain situations but do not address the use of CMV-IGIV in these individuals.

Current recommendations of the Centers for Disease Control and Prevention (CDC), the Infectious Diseases Society of America (IDSA) and the American Society of Blood and Marrow Transplantation (ASBMT) regarding prevention and prophylaxis of opportunistic infections in pediatric and adult autologous and allogeneic hematopoietic stem-cell transplant (HSCT) recipients do not address the use of CMV-IGIV in these individuals.

Adverse reactions to CMV-IGIV have been reported in less than 6% of patients receiving the drug in clinical studies. Flushing, chills, muscle cramps, back pain, fever, nausea, arthralgia, and wheezing/shortness of breath/chest tightness have been reported and often were related to the IV infusion rate.

Coding/Billing Information

Note: This section is not in use.

References

1. Cytomegalovirus infection. Atlanta, GA: National Center for Infectious Diseases. Accessed June 11, 2007. Available at URL address: <http://www.cdc.gov/cmV>.
 2. Drug Facts and Comparisons. St. Louis, MO: Wolters Kluwer Health, Inc. 2007.
 3. McEvoy GK, ed. AHFS 2009 Drug Information. Bethesda, MD: American Society of Health-Systems Pharmacists, Inc; 2009.
 4. Talecris Biotherapeutics, Inc. Cytomegalovirus immune globulin IV (CytoGam[®]) injection package insert. Melville, NY: Talecris Biotherapeutics, Inc. July 2008.
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Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare (Cytogam [®])	5/15/2008	5008	Cytomegalovirus Immune Globulin IV

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