Other Names | CytoGam®, CMV IGIV
---|---
Consent Required | Yes
Pre-Transfusion Sample | Not Required
Approval Requirements | Hematopathologist approval required.
Product Description | Sterile liquid preparation of immunoglobulin, containing a standardized amount of antibody to Cytomegalovirus (CMV). Derived from pooled adult human plasma selected for high titres of antibody to CMV. Contains no preservatives. Stabilized with 5% sucrose and 1% human albumin. Solvent detergent treated to reduce the risk of viral transmission. Immunoglobulin concentration is 50 ± 10 mg/mL, primarily IgG with trace amounts of IgA and IgM. Available in 50 mL (2500 mg) vial.
Clinical Indications | Pregnant women with primary CMV infection, however, a randomized control trial did not show efficacy. Treatment of CMV disease associated with solid organ transplantation or hematopoietic stem cell transplantation. Monitoring for CMV infection and anti-viral therapy is current standard practice in the post-transplant setting. The additional benefit of CMV Ig use is uncertain.
Contraindications | • Not indicated for patients with IgA deficiency with class specific antibody to IgA.
• Not indicated in patients with previous anaphylactic or severe systemic reaction to immune globulin.
Risks | **Minor reactions:** may occur and are usually transient and infusion rate related. **Severe reactions:** anaphylaxis, hypotension, aseptic meningitis syndrome (AMS), transfusion related acute lung injury (TRALI), thrombotic events, acute renal failure, increases in serum creatinine and blood urea nitrogen, transmission of infection.
Special Precautions: antibodies present in immune globulin preparations may interfere with the immune response to live virus vaccines such as measles, mumps and rubella. Therefore, vaccination with live virus vaccines should be deferred until approximately three months after administration of CMV IVIG. CMV IVIG should be given to a pregnant woman only if clearly needed.
Dosage | The dosage for obstetric patients is 100 mg/kg, monthly.
Administration | Administer pre medications as ordered. **NOTE:** Total volume in each bag should not exceed the volume that can be administered within 4 hours of issue. Notify Transfusion Medicine one hour before new bag is required. **NOTE:** CMV IVIG is pooled and pre-filtered in Transfusion Medicine and does not require further filtering at time of infusion.
Compatible Solutions | 0.9% Normal Saline and Dextrose 5%. (D5W).
Infusion Rates | See rate table 1 below.

### Table 1: CMV Infusion Rates for all patients

<table>
<thead>
<tr>
<th>1st 30 min</th>
<th>2nd 30 min</th>
<th>3rd 30 min</th>
<th>If initial infusion rate is well tolerated, increase the infusion rate at 30 minute intervals.</th>
<th>Maximum Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 mg/kg/hr</td>
<td>30 mg/kg/hr</td>
<td>60 mg/kg/hr</td>
<td>75 mLs/hr</td>
<td></td>
</tr>
<tr>
<td>0.3 mL/kg/hr</td>
<td>0.6 mL/kg/hr</td>
<td>1.2 mL/kg/hr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Monitoring

Signs and symptoms of an adverse reaction include, but are not limited to, flushing, chills, fever, muscle cramps, joint pain, back pain, nausea, vomiting, and wheezing. **Remain** with the patient for at least the first 15 minutes following the start of each bag/syringe and observe patient for S&S of a transfusion reaction.

**Measure vital signs:**
- Within 30 minutes before start of the infusion
- 15 minutes after start of the infusion
- Before each rate increase
- Hourly once maximum rate is achieved
- Within 60 minutes of completion of the infusion

**Vital signs**
- Heart Rate
- Blood Pressure
- Respiratory Rate
- Temperature
- $O_2$ Saturation on neonates

In the event of a suspected transfusion reaction, refer to Transfusion Reaction Procedure & Quick Reference guide and complete Transfusion Reaction Report Form. For outpatients, **REVIEW** post transfusion care and **GIVE** the “Heading Home after a Transfusion” form to the patient/family.

## Storage Conditions

Stored in a monitored blood product storage refrigerator at 1-6 C until expiry. Once vial is entered, product expiry is 12 hours. Return CMV IVIG and Transfusion Record to Transfusion Medicine within 20 minutes from time of issue if there are any delays in administration. **Do NOT** refrigerate on nursing unit.

## References

[Product Monograph](#) Cytogam, CSL Behring Canada Inc, January 2011.