

<b>Hamilton Regional Laboratory Medicine Program - HRLMP</b> (effective at Hamilton Health Sciences, St. Joseph's Healthcare and Associated Health Care Facilities)		
Initial Issue Date: Revision Date:	<b>Administration Guidelines</b>	Section: <b>Laboratory Medicine</b> Sub-Section: <i>Transfusion Medicine</i>
Title: <b>CYTOMEGALOVIRUS IMMUNE GLOBULIN (Human)</b>		Document Number:
Approved By: <i>Director, Laboratory Medicine Chair, Regional Transfusion Medicine Committee Head, Transfusion Medicine, HRLMP Manager, Transfusion Medicine, HRLMP Technical Specialist, Transfusion Medicine, HRLMP Chief of Nursing Practice, Hamilton Health Sciences Chief of Nursing Practice, St Joseph's Healthcare</i>		Page 1 of 3

**Purpose:** To Establish the Indications and Administration of Cytomegalovirus Immune Globulin (Cytogam)

**Scope:** All patient care areas across HHS and St. Joseph's Healthcare

**Definitions:** Cytomegalovirus (CMV) Immune Globulin is a sterile liquid of human IgG Immunoglobulin containing a standardized amount of antibody to cytomegalovirus.

<b>Other Names:</b> Cytogam Intravenous (Human)	<b>Date Approved:</b>	<b>Pages:</b> 1 of 3
---	-----------------------	----------------------

<p><b>INDICATIONS:</b></p> <ul style="list-style-type: none"> <li>- Kidney transplant recipients who are CMV negative and who receive a kidney from a CMV positive donor</li> <li>- Prevention and treatment of CMV infection in severely immunocompromised individuals such as bone marrow transplant recipients</li> </ul>														
<p><b>DOSAGE:</b></p> <ul style="list-style-type: none"> <li>- Maximum recommended total dosage pre-infusion is 150 mg/Kg administered according to the following schedule:</li> <li>- Within: <table style="margin-left: 20px;"> <tr> <td>72 hours of transplant</td> <td>160 mg/Kg</td> </tr> <tr> <td>2 weeks post transplant</td> <td>100 mg/Kg</td> </tr> <tr> <td>4 weeks post transplant</td> <td>100 mg/Kg</td> </tr> <tr> <td>6 weeks post transplant</td> <td>100 mg/Kg</td> </tr> <tr> <td>8 weeks post transplant</td> <td>100 mg/Kg</td> </tr> <tr> <td>12 weeks post transplant</td> <td>50 mg/Kg</td> </tr> <tr> <td>16 weeks post transplant</td> <td>50 mg/Kg</td> </tr> </table> </li> </ul>	72 hours of transplant	160 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
72 hours of transplant	160 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													
<p><b>SUPPLIED:</b></p> <ul style="list-style-type: none"> <li>- Stored between 2°C and 8°C</li> <li>- 1000 mg ± 200 mg in 20 mL vial</li> <li>- 2500 mg ± 500 mg in 50 mL vial</li> </ul>														

**RECONSTITUTION AND STABILITY:**

- CytoGam does not contain a preservative
- Infusion should begin immediately after entering vial
- Do not use past expiry date

**ADMINISTRATION:**

- Initial infusion dose administer intravenously at 15 mg/Kg weight per hour, if no adverse reactions occur after 30 minutes, may be increased to 30 mg/Kg per hour, if no adverse reactions occur after 30 minutes, may be increased to 60 mg/Kg per hour
- I. Volume not to exceed 75 mL/hr
- II. Maximum infusion time – 12 hours
- III. Filtering Cytogam is not necessary, however an inline filter may be used

METHOD	WHO/WHERE	DILUTION	HOW TO ADMINISTER	INFUSION PUMP	PRECAUTIONS AND MONITORING
IV PUSH	N/A	N/A	N/A	N/A	N/A
MINIBAG/ BURETROL	RN	No	- Product may be filtered and infused with a buretrol or evacuated bottle	Yes	- Observe and monitor for adverse reaction
PRIMARY IV BAG	N/A	N/A	N/A	N/A	N/A
IM or SC	N/A	N/A	N/A	N/A	N/A

**COMPATIBILITIES/INCOMPATIBILITIES:**

- Antibodies present in cytogam may interfere with the immune responses to live virus vaccines such as measles, mumps and rubella
- Therefore, vaccines with live virus should be deferred for three months after administration of cytogam

**ADVERSE EFFECTS:**

- Allergic reactions are rare

- Minor reactions such as flushing, chills, muscle cramps, back pain, fever, nausea, vomiting, arthralgia and wheezing were the most frequent adverse reactions
- Potential side reaction might be hypotension, but this has not been observed in over 200 infusions

**MANAGEMENT OF ADVERSE EFFECTS:**

- Notify physician
- Notify Transfusion Medicine
- If hypotension or anaphylaxis occur, the administration of the immunoglobulin should be discontinued immediately and an antidote such as diphenhydramine and adrenalin should be used

**NOTES:**

- Manufactured by Massachusetts Public Health Biologic Laboratories (selling agent: MedImmune, Inc.)
- Distributed by CBS
- Read package insert prior to administration.

**Documentation**

Issue transfuse sheets or requisitions with lot numbers must be included in patient's chart.  
Written consent for transfusion must be obtained prior to administration.

**References**

Package Insert - Cytomegalovirus Immune Globulin Intravenous (Human) CytoGam, Massachusetts Public Health Biologic Laboratories, June 1986.

**Developed By In Consultation With:**

Transfusion Medicine Operations Group  
Pediatric Clinical Nurse Educators  
Adult Clinical Nurse Educators

REVIEW DATES:

REVISION DATES: