

The Credit Valley Hospital – CLINICAL PRACTICE GUIDELINES

Folder Name: Clinical Practice Guidelines
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Issued By: Dr. Mathias Gysler, Chief of Medical Staff

Title: Infusion of Intravenous Immune Globulin ((IVIG) CPG

PURPOSE:

- To provide guidelines to be utilized when the infusion of intravenous immune globulin (IVIG) is being considered.

SELECTION CRITERIA:

- A definitive diagnosis should be confirmed prior to infusing IVIG
- Product should not be provided without a documented clinical indication, except in life-threatening situations and product should not be provided when “unknown” is the listed clinical indication

Exclusion Criteria

- Any patient who refuses to give consent for transfusion of blood and/or blood products
- In Emergency situations the Physician may carry out transfusion prior to obtaining consent in order to avoid any delay which may result in compromise to life, limb, and vital organ or prolong suffering if the Physician believes that the patient would, if able, consent to the treatment. This circumstance will be documented on the consent form by the physician and placed on the patient's health record.
- IgA deficiency with class specific antibody to IgA
- Previous severe systemic reaction to immune globulin product

DEFINITION:

IVIG is a sterile solution of human immunoglobulin intended for intravenous administration. The intravenous product contains almost exclusively monomeric IgG molecules; however traces of IgA and IgM will also be present. IVIG is manufactured from pooled human plasma obtained from several thousand donors per pool

RESPONSIBILITY:

Physician:

- Prior to the ordering of IVIG, the patient will be informed of the material risks, benefits and available alternatives to transfusion, so that informed consent may be obtained as per the [Consent to Treatment Policy and Procedure PP 3.1](#).
- The physician will document the indication for transfusion on the pre-printed order form [Physician Orders: Administration Blood and Blood Products \(#60002 DHR\)](#) or [Physician Orders: Pediatric Immune Globulin Infusion \(70001 DHR\)](#)

Title: Infusion of Intravenous Immune Globulin ((IVIG) CPG

Transfusion Medicine:

- Transfusion medicine will release IVIG upon receiving a copy of the pre-printed order form [Physician Orders: Administration Blood and Blood Products \(#60002 D HR\)](#) or [Physician Orders: Pediatric Immune Globulin Infusion \(70001 DHR\)](#)
- Transfusion medicine will review the indication for transfusion on all requests for intravenous immune globulin (IVIG).

ASSESSMENT AND TREATMENT AND/OR MONITORING:

IVIG is recommended for the following conditions

Specialty	Medical Condition	Dose and Duration (If exact dose is not available, round down)
Hematology	Acquired Hypogammaglobulinemia secondary to malignancy	0.4 g/kg every 3 weeks
	High risk allogeneic stem cell transplantation	0.4 g/kg weekly (day 1 to day 100)
	Fetal Neonatal Alloimmune Thrombocytopenia (F/NAIT)	Mother: Dose: weekly 1g/kg
		Infant: an initial dose of 1 g/kg, might provide benefit when platelets are not available
	Hemolytic Disease of the Fetus and Newborn (HDFN)	0.5 g/kg over 2 hours. If necessary dose can be repeated in 12 hours.
	Idiopathic Thrombocytopenic Purpura (ITP) Adult	Acute ITP and ITP with no or slow response to adequate dose steroids: 1 g/kg daily for 2 days
		Chronic ITP post splenectomy: 0.5g/kg every 4 weeks
Idiopathic Thrombocytopenic Purpura (ITP) Pediatric	One dose of 0.8 to 1 g/kg, with a second given within 48 hours if the platelet count has not increased to greater than $20 \times 10^9 /L$	
	Post Transfusion Purpura (PTP)	1 g/kg for 2 days
Neurology	Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)	2 g/kg given over 2 to 5 days
	Guillain-Barre Syndrome (GBS) (including Miller-Fisher syndrome and other variants)	Adults: 2 g/kg given over 2 to 5 days
		Children: 2 g/kg given over 2 days
	Multifocal Motor Neuropathy (MMN): initial treatment	2 g/kg given over 2 to 5 days
Myasthenia Gravis (MG): initial treatment	2 g/kg given over 2 to 5 days	

Infusion of Intravenous Immune Globulin ((IVIG) CPG

Specialty	Medical Condition	Dose and Duration (If exact dose is not available, round down)
Dermatology	Dermatomyositis	Adults: 2 g/kg over 2 to 5 days Children: 2 g/kg over 2 days
	Pemphigus Vulgaris and Variants	2 g/kg over 2 to 5 days
Rheumatology	Juvenile Dermatomyositis (JD): initial treatment	2 g/kg over 2 days
	Kawasaki disease (KD): initial treatment	2 g/kg x 1 day
Infectious Diseases	Staphylococcal toxic shock	1 g/kg on day one and 0.5 g/kg per day on days 2 and 3 OR 0.15 g/kg per day over 5 days
	Invasive Group A streptococcal fasciitis with associate toxic shock	1 g/kg on day one and 0.5 g/kg per day on days 2 and 3 OR 0.15 g/kg per day over 5 days
Immunology	Primary Immune Deficiency and Secondary Immune Deficiency	Adults: 0.4-0.6 g/kg/once every 4 weeks or SCIG 0.1-0.5 g/kg/week
		Pediatric: 0.3-0.6 g/kg every 4 weeks
Solid Organ Transplant	Acute antibody mediated rejection	0.1 g/kg/treatment day, or as a set dose of 2 g/kg total
	Kidney transplant from living donor	2 g/kg/month for 4 months

IVIG is recommended as an option for treatment of the following conditions

NOTE: Where IVIG is listed as an "Option for treatment" the product is to be **used without hesitation** in life-threatening situations where standard treatment has failed.

Specialty	Medical Condition
Hematology	Acquired hemophilia
	Acquired red cell aplasia
	Acquired von Willebrand's Disease
	Autoimmune hemolytic anemia
	Autoimmune neutropenia
	Hemolytic transfusion reaction (HTR)
	Hemolytic transfusion reaction in Sickle Cell Disease
	Hemolytic Uremic Syndrome (HUS)
	Thrombotic Thrombocytopenic Purpura (TTP)
	Virus associated hemophagocytic syndrome (VAHS)
Neurology	Acute disseminated encephalomyelitis
	Lambert-Eaton Myasthenic Syndrome
	Multiple Sclerosis
	Pediatric Autoimmune Neuropsychiatric Disorders with Streptococcal Infections (PANDAS)
	Polymyositis
	Rasmussen's encephalitis
Stiff Person's syndrome	

Infusion of Intravenous Immune Globulin ((IVIG) CPG

Specialty	Medical Condition
Dermatology	Toxic epidermal necrolysis (Stevens Johnson syndrome)
Solid Organ Transplant	Kidney transplantation with donor-specific antibodies in recipient

- Conduct and document regular monitoring of patient's weight for patients who use IVIG over a period of time
- Monitor platelet counts in ITP patients using IVIG
- Conduct regular testing of patients to detect hemolysis arising from use of IVIG
- Perform and document pre infusion serum immunoglobulin levels for Primary and Secondary Immune Deficiency patients (baseline and trough)

IVIG is contraindicated for the following condition:

Hematology	Heparin induced thrombocytopenia (HIT)
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REFERENCES:

Ontario Intravenous Immune Globulin (IVIG) Utilization Management Guidelines. (2009, November 5). Retrieved February 2010, from Ontario Regional Blood Coordinating Network:
<http://www.transfusionontario.org/media/IVIG%20GuidelinesFINAL.pdf>

RELATED DOCUMENTS:

- **Transfusion of Blood and Blood Products Adult - CPG**

EDUCATION:

The Transfusion Committee will be responsible for an education plan to ensure staff members directed by the information contained in the clinical practice guideline are notified. New staff will receive education through hospital and/or department orientation.

EVALUATION:

- Compliance with the use of the standard physician orders "Blood and Blood Products" will be monitored by the Transfusion Committee.
- Compliance with the guideline indications for transfusion will be monitored.
- Data collected from the Physician Order for Blood and Blood Products will be available for audit purposes by the Transfusion Committee.

DEVELOPED BY:

Medical Director Transfusion Medicine, Chair Transfusion Committee

APPROVED BY:

Medical Advisory Committee – Jun 2011