DukeMedicine

Division of Cellular Therapy

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DOCUMENT TITLE:

Intravenous Immune Globulin \(IVIG/Gamunex-C®\) Administration

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ABMT-GEN-033
INTRAVENOUS IMMUNE GLOBULIN (IVIG/GAMUNEX-C®) ADMINISTRATION

1 PURPOSE

1.1 To outline the nursing responsibilities in the first-time and subsequent administration of Intravenous Immune Globulin (IVIG/Gamunex-C®).

2 INTRODUCTION

2.1 IVIG/ Gamunex-C® decreases the risk of septicemia, interstitial pneumonia and GVHD in the first 100 days post transplant. It also provides the patient with passive immunities and some platelet protection.

2.2 Use cautiously in patients with impaired renal function

2.3 Intravenous (IV) via continuous infusion. Infusion rate is gradually increased as outlined below.

2.4 *IVIG/Gamunex-C® Dosage Range: 300-600 mg/kg, max dose is 1000 mg/kg and is often on ideal body weight

2.5 Adverse effects – including anaphylaxis – are more common with the first dose of IVIG/Gamunex-C®. The greatest risk of side effects generally occurs in the first 30 – 60 minutes of administration. Frequent monitoring is required during the initial dose of IVIG.

- 2.5.1 Flushing
- 2.5.2 Chills, fever
- 2.5.3 Muscle cramps, myalgias
- 2.5.4 Hypotension/hypertension
- 2.5.5 Wheezing
- 2.5.6 Anaphylaxis (hypotension, shortness of breath, respiratory distress, chest pain/tightness, shock)

3 SCOPE AND RESPONSIBILITIES

3.1 Interdependent (asterisked items* require an order from a licensed physician or advanced practice provider). RN's who have demonstrated competency in medication administration.

4 DEFINITIONS/ACRONYMS

4.1 IVIG: Immune globulin IV is an intravenous solution composed primarily of heterogenous human IgG, with trace amounts of IgA and IgM.

4.2 Generic Name: Intravenous Immune Globulin

4.3 Brand Name(s): Gamunex-C®, others

5 MATERIALS

5.1 IVIG, Gamunex-C® prepared by the pharmacy

6 EQUIPMENT

6.1 N/A

7 SAFETY

7.1 Reportable Conditions:

7.1.1 Anaphylaxis (hypotension, shortness of breath, respiratory distress, chest pain/tightness, shock)

7.1.2 Fever, chills

7.1.3 Hypotension

7.1.4 Wheezing

8 PROCEDURE

8.1 Discuss possible side effects and symptoms management strategies with the patient.

8.2 Make sure epinephrine, oxygen, and suction are available on the unit for emergency use in event of anaphylaxis.

8.3 *Pre-medicate patient with acetaminophen, diphenhydramine, and/or hydrocortisone as ordered.

8.4 IVIG is **incompatible** with all other drugs and is to be administered through a separate line. The line should be flushed with **D5W** before and after infusion.

8.5 Verify dosage and patient identity with second RN prior to each dose.

8.6 Central line access is recommended.

8.7 Monitor patient's vital signs frequently, including temperature, blood pressure, heart rate and respiration rate.

8.7.1 Obtain and document baseline VS and stay with patient for first 5 minutes of infusion.

8.7.2 For the initial infusion or if greater than 8 weeks since last dose, monitor and document VS q 15 minutes during the first hour, q 15 min after each dose escalation, and then hourly throughout the infusion until completion.

8.7.3 For subsequent doses, monitor and document VS at baseline, 15 minutes into the infusion, and at completion unless transfusion reaction is noted.

8.8 *Escalate infusion rates according to following:

NOTE: For brands OTHER than Gamunex-C®, contact pharmacist for administration rate guidelines.

8.8.1 Infuse Gamunex-C® * as follows for the initial infusion or if greater than 8 weeks since last dose:

0.6 ml/kg/hr x 30 minutes, then
1.2 ml/kg/hr x 30 minutes, then
2.4 ml/kg/hr x 30 minutes, then
4.8 ml/kg/hr until infusion complete

8.8.2 Infuse subsequent doses of Gamunex-C® * at the same dose escalation rates but increasing every **15** minutes.

8.9 *Slow infusion rate if patient experiences headache, fever, chills, nausea, vomiting, joint or back pain, myalgias, chest tightness, palpitations, dizziness, sweating, itching, rash, flushing, or irritation at line site.

8.10 *If hypotension or anaphylaxis occurs, discontinue infusion immediately and notify MD. Maintain patency of line with D5W and treat anaphylaxis as per MD orders: be prepared to administer diphenhydramine and epinephrine per order.

9 RELATED DOCUMENTS/FORMS

9.1 Document the following in EMR:

9.1.1 Patency of IV site/blood return from catheter

9.1.2 Patient's tolerance of IVIG/Gamunex-C®

9.1.3 Response to interventions to minimize side effects

9.1.4 Patient's understanding of expected side effects and symptom management strategies.

10 REFERENCES

10.1 Gahart, B. L., & Nazareno, A. R. (2011). *Intravenous medications, a handbook for nurses and health professionals.* (27th Edition ed.). Page 744-753. St. Louis, MO: Elsevier Mosby.

10.2 Clinical Pharmacology (2012). Accessed at http://www.clinicalpharmacology-ip.com/Forms/drugoptions.aspx?cpnum=311&n=Gamunex-C®.

10.3 Talecris Packaging Insert (2010). "Gamunex-C®, [Immune Globulin Injection (Human) 10% Caprylate/Chromatography Purified] Initial Approval: 2003." *Full Prescribing Information.* Rev. October 2010

10.4 Newfoundland Labrador (2010). "Guidelines for Administration of Intravenous Immune Globulin (IVIG)." Effective date: August 30, 2010.Version 1.0.

10.5 Aetna Specialty Pharmacy (2009). "Patient Referral/Medication Request- IVIG Therapy." Effective date: March 2009.

10.6 Capital Health (2007). "Client Resource A: Capital Health Intravenous Immune Globulin Administration Protocol." *Department of Laboratory Medicine and Pathology Regional Laboratory Services.* Transfusion Medicine. Effective date: October 18, 2007: Version 1.2.

10.7 Scherf, R. & White-Reid, K. (2008). "Giving Intravenous Immunoglobulin." *Modern Medicine, Healthy Patients, Healthy Practice*. Effective date: January 1, 2008. Advanstar Communications Inc.

REVISION HISTORY

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ABMT-GEN-033 Intravenous Immune Globulin IVIG/Gamunex-C® Administration

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