

<b>SECTION 8B: PUMPS AND DRUG ADMINISTRATION</b>	<b>POLICY: 8B.20</b>
<b>POLICY: INTRAVENOUS IMMUNE GLOBULIN (IVIG)</b>	<b>PAGE: 1 OF: 4</b>

**PURPOSE:**

- To safely administer Intravenous Immune Globulin (IVIG) to patients in the home setting.

**POLICY:**

- IVIG will be administered in accordance with Helms Home Care, LLC protocol (unless other policies are specified by a contracting pharmacy) and only by registered nurses who have experience administering the medication.

**GENERAL INFORMATION:**

- The administration of Immune Globulin provides passive immunity to prevent infections in immune-deficient patients. Some disease states causing antibody deficiency include but are not limited to agammaglobulinemia, common variable immune-deficiency and acquired immune-deficiency.
- Immune Globulin is also indicated in the treatment of CIDP (Chronic Inflammatory Demyelinating Polyneuropathy) and Myasthenia Gravis. IVIG is also frequently used in the treatment regimen for acute and chronic I.T.P (Idiopathic Thrombocytopenia Purpura).

**SPECIAL CONSIDERATIONS:**

- A registered nurse should remain with the patient for the entirety of the infusion.
- A thorough medical history should be obtained prior to administration. Note history of IVIG therapy and previous tolerance.
- Do not mix any other drugs with IVIG.
- IVIG must always be titrated, starting at a lower rate, and incrementally increased to a higher rate.
- IVIG shall be titrated per the ordered rates or Pharmacy specific instructions.
  - If orders do not contain rates or there are no Pharmacy specific instructions, IVIG shall be titrated and administered per **Agency default rates: 30ml x15 minutes, 60ml x15 minutes, 90ml x15 minutes, 120ml x15 minutes, max rate of 150ml per hour.**
- Some physicians pre-treat with Acetaminophen or Diphenhydramine thirty minutes prior to infusions. A physician's order is necessary for pre-treatment medications.
- An anaphylaxis kit should be ordered by the physician and be kept in the home for each infusion.

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- Be alert for infusion-related side effects such as flushing, chest tightness, chills, fever, dizziness, nausea, diaphoresis, or hypotension, and adjust the infusion rate downwards or stop the infusion if side effects appear.
- IVIG approved for home administration: Bivigam, Gamunex-C, Gammagard S/D, Gammagard liquid, Carimune NF, Privigen, Octagam, Gammaplex, Gammaked & Flebogamma DIF.

### **PROCEDURE:**

Supplies required:

- IV pump and pole or ambulatory pump
- Vented IV tubing or Vented Spike
- Ordered dose of IVIG
- 0.9% sodium chloride or 5% dextrose and Heparin flushes
- Alcohol pads
- Tape
- Ultrasite extension set
- IV start kit and peripheral catheter (if IV needs to be started)
- Port access kit, Huber needle, sterile access kit (if patient has a port)
  - **\*Port access is a sterile procedure**
  - IV catheter for IV insertion
  - Sharps container
  - Anaphylaxis kit

1. Obtain and verify physician's orders including premedication orders, concentration, and rate of IVIG infusion, and emergency protocols.
2. Explain procedure and purpose to patient and caregiver.
3. Follow appropriate standard precautions.
4. Assemble supplies on a clean, dry surface.

Policies & Procedures



Reference: PDN Policy 13101

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5. Assure IV access is in working condition (if no access is currently available, start peripheral IV). **DO NOT tamper with medication until IV access is established.** After 2 unsuccessful IV attempts, notify Agency immediately for further instruction on how to proceed.
6. Assess and record patient's vital signs to establish baseline.
7. Assemble equipment (e.g., IV supplies, pump on pole, tubing primed with IVIG).
8. Flush IV access device with 5-10 ml 0.9% sodium chloride or 5% dextrose to assure patency.
9. Attach primed IVIG tubing directly into IV line.
10. Program IV rate into infusion pump. **\*\*If there is an issue with the pump and gravity tubing is available, notify the Agency as we must obtain Pharmacy approval to use gravity tubing.**
11. Begin infusion.
12. **Assess vital signs at baseline, every 15 minutes for the first hour, hourly and with each rate change, and post infusion.**
13. When infusion complete, assess vital signs and patient's response to the infusion.
14. Flush catheter with 5-10 ml 0.9% sodium chloride or 5% dextrose per order.
15. Flush catheter with Heparin per physician order if needed. **\*\*If the infusion is running via peripheral IV, a heparin flush/lock is not necessary, however if the patient will remain accessed for subsequent days for infusion and the Pharmacy provides heparin, it may be used to increase the longevity of the IV.**
16. Attach sterile catheter injection cap/clave connector (if applicable) or discontinue peripheral IV.
17. Discard needle in Sharps container.
18. Clean up work area and ensure that all trash is disposed of
19. Document procedure and patient's response to procedure.

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**ADVERSE REACTIONS:**

- The first course of action with any reaction is to immediately **slow the rate of infusion.**
- If there is no improvement in symptoms, stop the infusion and contact the physician. Always inform the agency of any signs of intolerance when they are first noticed. Refer to the table below for management solutions.
- If the nurse assesses signs of an Anaphylactic reaction that do not subside with the below precautions or that is severe in nature, EMS should be activated. Once EMS has been called, the nurse should notify the agency immediately and document all that occurred.

REACTION	GRADE 1	GRADE 2	GRADE 3	GRADE 4
<b>CHILLS</b>	Feels cold	Shaking	Severe shaking	Uncontrollable Shaking
<b>HEADACHE</b>	Slight to moderate	Severe, relieved by non-narcotic analgesic	Severe, relieved by narcotic	Severe, not relieved by narcotic
<b>FLUSHING</b>	Feels warm, no redness	Face pink in some areas	Diffuse facial redness	Diffuse facial redness
<b>SHORTNESS OF BREATH, INCREASE IN RESPIRATORY RATE, DYSPNEA</b>	Shortness of breath with no exertion, no dyspnea, resp. rate stable	Resp. rate increased by >6 breaths/min. with exertion, returns o baseline with 5 min. rest.	Shortness of breath at rest, Resp. rate increased by >6 breaths/min.	Obvious dyspnea with nasal flare, need for oxygen
<b>PULMONARY CONGESTION</b>	Faint unilateral or bilateral crackles	Marked unilateral or bilateral crackles	Diffuse unilateral crackles	Diffuse bilateral crackles
<b>FEVER</b>	100.9 F	102.2 F	103.1 F	104 F
<b>CARDIAC</b>	Tachycardia <30 beats/min. above baseline	Tachycardia >30 beats/min. above baseline		
TREATMENT	GRADE 1	GRADE 2	GRADE 3	GRADE 4
<b>CHILLS</b>	Apply Blanket	Apply Blanket		
<b>HEADACHE</b>	PO Tylenol	PO Tylenol	PO Tylenol or other analgesic	
<b>FLUSHING</b>	Slow infusion rate	Slow infusion rate	<b>STOP INFUSION</b>	<b>STOP INFUSION</b>
<b>SHORTNESS OF BREATH, INCREASE IN RESPIRATORY RATE, DYSPNEA</b>	Slow infusion rate. May resume normal rate if symptoms abate	Slow infusion rate. Administer Benadryl IV	<b>STOP INFUSION</b> Hang 500 ml bag of 0.9% NS. Administer Benadryl IV. Notify MD.	<b>STOP INFUSION</b> Hang 500ml bag of 0.9% NS. Administer Benadryl IV and Epinephrine SQ. Notify MD
<b>PULMONARY CONGESTION, FEVER, CARDIAC</b>	Resume infusion when signs & symptoms resolve	Resume infusion when signs & symptoms resolve	Resume infusion when signs/ symptoms resolve, if authorized by MD	