PURPOSE:

• To provide instruction on the safe administration of Immunoglobulins (Ig) via the subcutaneous route to patients in the home setting.

POLICY:

• Subcutaneous Immunoglobulins (SCIg) will be administered and/or taught by a trained registered nurse in accordance with a physician's orders, any available/provided pharmacy or manufacturer instructions, and Agency policy.

GENERAL INFORMATION:

- Immunoglobulins (Ig) are antibodies used to treat adults and children with primary immune deficiencies who are unable to make enough of their own antibodies or who have antibodies that do not work properly.
- The administration of Ig provides passive immunity to prevent infections in immune-deficient patients for diagnosis that include CIDP (Chronic Inflammatory Demyelinating Polyneuropathy) and PI (Primary Immune Deficiency).
- The most common side effects of SCIg include mild or moderate swelling, hardness, blanching (whiteness), or redness at the infusion site(s). These reactions are normal and should resolve within 24-72 hours. They are more common in people who have just started SCIg and most patients start to notice a decrease in local site reactions over time with repeated infusions.

SPECIAL CONSIDERATIONS:

- SCIg approved for home administration includes Hizentra®, Cutaquig®, Cuvitru®, Xembify®, HyQvia®, Gamunex-C®, Gammaked®, and Gammagard®. These medications should be stored in the refrigerator or at room temperature per the manufacturer's instructions.
- There are two types of SCIg infusions. Most are infused weekly via small doses. One product, HyQvia, is a "facilitated" SCIg which includes a pre-infusion of hyaluronidase which allows for the skin to tolerate larger volumes decreasing the need for weekly infusions to every other week.





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- If a patient has been receiving IVIg and they are transitioning to SCIg, therapy should be initiated one (1) week after the last IVIg infusion.
- SCIg should be allowed to equilibrate to room temperature prior to infusion.
 - SCIg should be stored at 2° to 8°C (36° to 46°). If there are any doubts about the storage and/or viability of the drug, reach out to the Agency immediately so that confirmation may be sought from the Pharmacy.
- SCIg is infused using syringe driver pumps. Pumps used are the Freedom 60, Freedom Edge, SCIg Infuser, and Graseby. The nurse will use whichever pump the Pharmacy supplies.
- Recommended infusion sites include subcutaneous tissue in the abdomen (most common) thighs, upper arms, and the side of upper leg/hip. Site considerations:
 - Up to eight sites may be used at the same time. Four or fewer is most common.
 - Sites should be rotated to minimize irritation.
 - If more than one site is being used, be sure the sites are at least 2 inches apart and avoid the 2-inch circumference of the umbilicus.
 - o DO NOT use sites that are scarred, bruised, broken, or inflamed.
 - The number of infusion sites and needle size will be dictated by the MD/Pharmacy order.

PROCEDURE: RN Administration

- 1. Obtain and verify physician's orders including pre-medication orders, concentration, rate of infusion, and emergency protocols (in-date anaphylactic kit on-hand). If you notice any discrepancies in the orders, contact the Agency before proceeding.
- 2. Explain procedure and purpose to patient/caregiver.
- 3. Perform initial Hand Hygiene and maintain throughout the procedure.





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- 4. Assemble supplies on a clean, dry surface. Ensure all supplies needed to complete the infusion from beginning to end are available. If any supplies are missing, notify the Agency immediately prior to starting the infusion process.
- 5. Assess and record patient's **vital signs** to establish a baseline and ensure vital signs are not contraindicative to starting the infusion.
 - a. Once infusion begins, vital signs should be taken every fifteen minutes for the first hour, hourly thereafter, and at infusion end.
- 6. Gather all vials needed for the patient's dose. Inspect the solution in each vial. The solution should be a clear and pale yellow to brown solution. Do not use if the solution looks cloudy, contains particles, or has changed color.
- 7. Remove the flip off cap from the single dose vial(s) and wipe the top of the vial(s) with alcohol.
- 8. Use a transfer device (i.e., syringe and mini-dispensing pin or needle) to draw up the ordered dose. Pull back on the plunger of the syringe to fill it with air. Make sure that the amount of air is the same as the amount of the dose you will transfer from the vial.
- 9. Take the filled syringe and needle out of the stopper. Take off the needle and throw it away in the sharps container.
- 10. When using multiple vials to achieve the desired dose, repeat this step.
- 11. Prepare the infusion pump following the manufacturer's instructions, including attaching any necessary adapters.
- 12. Prime (fill) the infusion tubing. To prime the tubing, connect the syringe filled with SCIG to the infusion tubing and gently push on the syringe plunger to fill the tubing.
- 13. Stop priming before fluid reaches the needle.
- 14. Insert syringe into the infusion pump.
- 15. Select an access area (i.e., abdomen, thigh, upper arm, or side of upper leg/hip) for the infusion





- 16. Rotate sites with every infusion. New sites should be at least 1 inch from a previous infusion site. Remember to never infuse into areas where the skin is tender, bruised, red, or hard. Avoid infusing into scars or stretch marks
- 17. Clean the skin at each site with an antiseptic skin prep. Let the skin dry.
- 18. Using two fingers, pinch together the skin around the infusion site. With a quick dart-like motion, insert the needle straight into the skin.
- 19. Secure needle with tape or a transparent dressing.
- 20. Follow the manufacturer's instructions to turn on the infusion pump.
- 21. When all the medication has been infused, turn off the infusion pump.
- 22. Remove and dispose of the needle set. Dispose into sharps and cover the infusion site with a protective dressing.
- 23. If applicable, remove the adapter from the infusion pump following the manufacturer's instructions.
- 24. Throw away the empty syringe(s) or vial(s), along with the used disposable supplies, in the sharps container.
- 25. Clean and store the infusion pump, following the manufacturer's instructions.
- 26. Document the procedure, the patient's response to the procedure, and all lot numbers and expirations dates for vials used.

Note: If the infusion is not completed for any reason, notify the Agency immediately so the Pharmacy can be notified.



Policies & Procedures

Procedure: RN Teaching Patient/Caregiver to Administer

If teaching the patient/caregiver to administer the medication independently the same steps above are applicable. In addition, the Agency nurse shall:

- Assess the client's learning readiness and ability to pay attention and perform the required tasks.
- Explain the purpose of the medication, why this route is preferred, and why site rotation is important.
- Instruct the client regarding the potential side effects of the medication, including delayed hypersensitivity and anaphylaxis, which can potentially occur after the patient has received several doses of the medication. Ensure patient knows when to reach out to EMS.
- Explain that the medication should be taken as prescribed until the MD/provider directs otherwise.
- Allow the patient/caregiver to discuss any unresolved questions or concerns about the medication
- Proceed to teach the patient/caregiver the techniques for administration.
- Observe and document when the client has successfully verbalized and/or demonstrated independence with medication administration and related therapy education elements including the importance of hand hygiene, storage, and handling of medication, supplies and pumps, preparation of medication using aseptic technique, subcutaneous site selection, cleansing, insertion and removal pump preparation, discontinuing treatment, and waste disposal.
- When teaching the patient to self-administer, each clinical note must include the patient/caregiver's progress toward the goal of independence. The narrative note should specify what steps/goals the client has accomplished and what additional teaching / education elements they still need to achieve. If any concerns exist regarding their ability to perform any tasks and/or become independent, it should be documented in the note and reported to the Agency.



SECTION 8B: PUMPS AND DRUG ADMNISTRATION

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- The number of teaching visits required will vary with each patient but general schedule:
 - o 1st Visit RN introduces procedure, client observes
 - o 2nd Visit RN reinforces and provides guidance while client performs procedure
 - o 3rd Visit RN observes patient performing procedure
- Each clinical note must include the patient/caregiver's progress toward the goal of independence. The narrative note should specify what steps/goals the client has accomplished and what additional teaching / education elements they still need to achieve. If any concerns exist regarding their ability to perform any tasks and/or become independent, it should be documented in the note and reported to the Agency
 - If the patient requires additional teaching visits after the 3rd visit or initial number of approved visits, ensure thorough explanation is documented it in the visit note and notify the Agency immediately so that we may seek approval for additional visits from the Pharmacy.

Policies & Procedures

