CAREPATHrx™
Specialty Pharmacy & Infusion Solutions

SUBCUTANEOUS HYQVIA INFUSION

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards:
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Approved by, Title and Date Approved: Kathleen Patrick, President 1/1/21, 5/1/21

I. POLICY

HyQvia is indicated for the treatment of primary immunodeficiency in adults. Indications include but are not limited to the following conditions: Common Variable Immunodeficiency, X-Linked Agammaglobulinemia, Congenital Agammaglobulinemia, Wiskott-Aldrich Syndrome, and/or Severe Combined Immunodeficiencies.

To ensure safe and effective subcutaneous administration of HyQvia to eligible patients. Nurse clinicians will perform or teach this procedure to assure safe and consistent delivery of therapy. Drug, dose, volume, rate, and concentration shall be appropriate regarding the integrity and condition of the patient's subcutaneous tissue. If an allergic or anaphylactic reaction occurs the following procedures will be followed.

II. PROCEDURES

A. Patient Selection:

1. Patient with poor venous access
2. Patients with documented side effects to IGIV with severe migraines and nausea and
3. vomiting
4. Patients experiencing fluctuations in IGG levels leading to reoccurring infections.
5. Patient with noncompliance issues with inability to coordinate IGIV administration with work
6. or school

B. Contraindications: HyQvia is contraindicated in patients with a history of previous anaphylactic or severe systemic response to IG preparations, those with IgA deficiency (serum IGA<0.05g/L) who have known antibody against IgA, or patients with known hypersensitivity to hyaluronidase.

C. Drug warnings: Hypersensitivity, Thrombosis, Immunogenicity of HY solution, Aseptic meningitis syndrome, Hemolysis, Renal dysfunction, Spread of localized infection, Transfusion-related acute lung injury, transmittable infectious agents, and interference with laboratory tests.

D. Potential Anaphylaxis: An epinephrine kit containing 1 – Epinephrine 1:1000 ampule and corresponding supplies will be delivered as a standing order, unless otherwise specified by the

physician.

In addition, the Intake nurse will request the prescribing physician provide a prescription to the patient for an Epi-pen, to be dispensed by the patient's local pharmacy, if the patient is receiving a self-administered therapy such as HyQvia

E. Dosing: HyQvia dose will be titrated to achieve a maintenance dose of 300-600 mg/kg every 3-4 weeks as prescribed by physician. Follow dosing instructions as noted on pharmacy plan of treatment (POT).

F. Infusion Rates:

1. Gently infuse human recombinant hyaluronidase (HY) via IV push at a rate of 1-2 ml. per Minute per infusion site. Follow HY infusion with Immune Globulin (IG) within 10 minutes of HY infusion using an appropriate infusion pump.
2. Rate of Immune Globulin (IG) is to be titrated in 5–15-minute intervals as noted on Pharmacy plan of treatment (POT) and based upon patient tolerance.
3. Volume per site: BW <40 kg = up to 300 ml. BW $\geq$ 40 kg = up to 600 ml.

G. Clinical Monitoring:

1. IGG trough levels (i.e., prior to next infusion starting with the first infusion), monthly X 3, then every 6 months. Clinical experience suggests a target serum IGG trough level of at least 500mg/dl.
2. Renal function
3. Monitor adverse reactions and treat per protocol.
4. Additional labs as ordered by physician.

H. Site Selection:

1. Suggested sites include middle to upper abdomen above the umbilicus and thigh. Avoid Bony prominences and areas that are scarred, inflamed, or infected.
2. When using multiple subcutaneous sites, the catheters are to be anchored on opposite sides of the body.
3. Utilize a High Flo subcutaneous infusion set 24g
4. Rotate sites with each infusion using opposite sides of the body.

I. Patient Training

1. Registered Nurse to be present for initiation of first dose, and to initiate patient training.
2. Documentation of patient training to include:

    a. Aseptic technique and infection control
    b. Setup- Preparing HY and IG/priming of infusion set
    c. Site selection and preparation
    d. Subcutaneous needle insertion
    e. Administration of HY via IV push method
    f. Operation and troubleshooting of infusion pump for IG administration
    g. Proper disposal of biohazards
    h. Side effects
    i. Patient journal (documentation of date, time, site selection and adverse reactions).

J. Administration

1. Visually inspect each vial of Immune globulin for discoloration and for particles in the

solution. DO NOT SHAKE. The product should be colorless or pale yellow. Vials of HyQvia should appear clear and colorless.

2. On a clean flat surface, assemble all the supplies needed for treatment. This will include:

    a. Human recombinant hyaluronidase vials
    b. Immune globulin vials
    c. IV start kit including transparent dressing
    d. CADD Prizm high-volume tubing
    e. CADD Prizm pump with 9-volt battery
    f. Gravity fill set with vented spike
    g. Pooling bag
    h. High Flo Subcutaneous needle set (24g)
    i. Injection cap
    j. 30 cc syringe with 18-gauge needle
    k. sodium chloride syringe
    l. Sharps container
    m. Alcohol wipes

3. Wash hands

4. Open cap on dual-vial units. Prepare each vial of HY by cleansing top of vial with alcohol. Let air dry.

5. Attach the injection cap to the end of the SQ set

6. Withdraw HY using 30 cc syringe.

7. Close clamp on SQ set. Clean injection cap on end of set with alcohol.

8. Attach syringe of HY to injection cap and unclamp SQ set. Prime SQ set until med reaches needled hub but does not drip from end.

9. Open cap on dual-vial units. Prepare each vial of IG by cleansing top of vial with alcohol. Let air dry.

10. Close clamps on gravity fill set.

11. Remove protective cover from spike on gravity fill set. Insert spike into the IG vial. Invert IG vial and open the vent spike. Continue to hold the IG vial in the inverted position. Unclamp gravity fill set/tubing and transfer the IG into the pooling bag as instructed by your nurse.

12. When IG has transferred to pooling bag, close the clamp on gravity fill set and detach. Remove the gravity fill set and cover the opening with the white cap provided in the package. Snap clamps at the pooling bag to secure.

13. Remove CADD Prizm tubing from package. Remove blue Flow Stop device from top of cassette by pulling blue tab up. (Prevents unintended gravity flow)

14. Remove protective tab from entry port of medication bag. Remove cover from spike on tubing and insert spike into medication bag.

15. Insert 9-volt battery into pump. Pump screen will display pre-programmed settings.

16. Prime tubing.

17. Cleanse selected needle insertion site as directed.

18. Remove protective cover from needle set that has HY syringe attached and using swift darting motion insert needle at 90-degree angle into fold of skin. Secure with transparent dressing after placement is verified, by checking for blood return.

19. Gently inject the HY at rate of 1-2 ml per minute per infusion site; may increase as tolerated. Remove syringe from tubing set when HY injection is complete.

20. Attach SQ set to pump tubing for IG. Unclamp tubing. Start pump to infuse IG.

21. When infusion is complete, turn the pump off and disconnect tubing from injection cap. Discard tubing.

22. Flush infusion set with sodium chloride up to the needle.

23. Gently remove transparent dressing and remove needle from SQ site. Discard needle into sharps container. Cover injection site with band aid or gauze. Apply direct pressure but avoid rubbing site.

24. Document the infusion in Patient Journal. Remove peel off label from each vial of HyQvia and affix in Patient Infusion Log, noting date, time, dose, site, and any reaction.

K. Immune globulin contains no preservative, therefore discard unused product immediately after use.

L. Common adverse reactions include mild to moderate local reactions (eg. redness/swelling), headache, fatigue, nausea/vomiting, pyrexia, and antibody formation against HY solution. At first sign of an adverse drug reaction stop the infusion immediately and call the physician.

M. Nursing Interventions

1. Educate patient about expected local reactions. If swelling or redness increases in severity or Persists for greater than a few days, contact healthcare professional.

2. Instruct patient to follow regularly scheduled infusions to maintain appropriate steady IGG levels.

3. Instruct patient to keep a treatment infusion log.

4. Instruct patient on importance of following directions on the pump for infusion of HyQvia.

5. Instruct patient to immediately report the following signs/symptoms: respiratory distress, Severe hives/itching, symptoms of thrombosis, chest pain, rapid pulse, numbness, or Weakness in parts of body, severe headache, neck stiffness, drowsiness, fever, sensitivity to light, nausea/vomiting, fatigue, jaundice, decreased and/or dark colored urine, sudden weight gain/edema.