Standard of Practice: Care of a Patient Receiving Intravenous Gamma Globulin (IVIG) or Subcutaneous Immunoglobulin (SCIG)

Essential Information:
1. IVIG is not compatible with any other drug and must be infused through a separate dedicated lumen.¹
2. It is recommended that IVIG not be administered for two hours post blood product administration.
3. IVIG infusion titration rates will be specified in the medical order. Please refer to the Pharmacy Department Formulary/IVIG Administration Guidelines (http://internal.cc.nih.gov/formulary/ccfs/ivig/ivig.html) for infusion rate, filter requirements, and for compatible flush solution. Infusion rates must not exceed manufacturer guidelines.²
4. When pharmacy sends the medication, do not shake IV container, or syringe used for subcutaneous injection.
5. Use a 5 - 15 micrometer (micron) filter for all IVIG products requiring filtration. Filter provided by the Pharmacy. (Filter is not used for subcutaneous injection infusion).
6. Risk of adverse reactions may be increased in neonates and the elderly greater than 65 years, patients with history of diabetes, migraines headaches, cardiovascular or renal disease, those with fluid volume depletion, active infection, sepsis, history of previous reaction to immune globulin, or patients receiving known nephrotoxic drugs. Risks may also be increased with initial treatment, switching brands of immune globulin, rapid infusion rate, and with treatment interruptions >8wks.³,⁴ Patients receiving high doses of IVIG (1-2mg/kg) are at increased risk as well.

I. ASSESSMENT
  1. Prior to immunoglobulin administration:
     a. Assess patient for:
        (1) Prior immunoglobulin use and reaction.
        (2) History of live virus vaccinations, active infection, renal disease, and thromboembolic disease, including stroke and deep vein thrombosis.
        (3) Review lab results; BUN, Creatinine, and CBC.
        (4) For SCIG: assess for optimal subcutaneous sites which are free of lesions, redness, or skin alterations.

II. INTERVENTIONS
  1. Prior to immunoglobulin administration
     a. Obtain and record baseline vitals signs
     b. Verify that the following emergency supplies, medications, and relevant equipment are available on the patient care unit:
        (1) 0.9% sodium chloride flush solution and administration set
        (2) Oxygen
        (3) Suction
        (4) Vital signs monitor
        (5) Anaphylaxis/emergency treatment medications
     c. Administer any pre-medications, as ordered.
     d. Provide family and patient education appropriate for the immunoglobulin product used
        (1) Purpose of immunoglobulin administration
(2) Signs and symptoms of adverse reaction to immunoglobulin (immediate reaction occurs during and delayed reaction occurring 48-72 hours after infusion).

(3) Patient restriction to the unit until IVIG infusion completed.

(4) For SCIG, assess for optimal subcutaneous sites. This includes areas on the abdomen, thigh, upper arm and buttock, which should be lesion/irritant free. The site should be located away from bony prominences and the patient’s waistline, and rotated with each injection.

(5) SCIG sites should be cleaned with a chlorhexidine gluconate/alcohol preparation (Chloraprep®), and protect and secure the needle with a transparent dressing.

2. During immunoglobulin administration
   a. Vital signs assessment for first-time IVIG infusion or, if interval between IVIG administrations is > 8 weeks, monitor vital signs at baseline and every 15 minutes after each escalation in the rate of administration. After the last rate escalation, monitor vital signs every 15 minutes x 2, every 30 minutes x 2, end of infusion, and prn.
   b. Frequency for vital signs assessment for other than first-time administration (interval between IVIG administration is < 8 weeks) is baseline, end of infusion, and as needed.
   c. If patient experiences any of the following, decrease immunoglobulin administration rate by 50% and notify the Licensed Independent Practitioner (LIP):
      (1) fever (greater than 1 degree Celsius increase in temperature) or chills
      (2) nausea or vomiting
      (3) joint, muscle, or back pain,
      (4) palpitations, dizziness, tachycardia
      (5) diaphoresis
      (6) itching, rash
      (7) flushing
      (8) headache (commonly seen as immediate or delayed reaction)
   d. If patient experiences any of the following, stop the IVIG infusion, maintain IV patency with D5W or normal saline, and notify the LIP. If during a SCIG infusion, stop infusion and notify LIP:
      (1) Hypotension, drop of B/P ≥ 20 % of baseline
      (2) Shortness of breath, dyspnea, respiratory distress
      (3) Urticaria, edema of eyelids, lips, or tongue
      (4) Vasomotor symptoms (chest tightness, tachycardia)

III. DOCUMENTATION
   1. Document the following in approved medical record and in accordance with SOP: Medication Administration:
      a. Date/time of administration
      b. Immunoglobulin brand and lot number, as written on label
      c. Vital Signs
      d. Adverse drug reactions
      e. Assessments and interventions
      f. Patient education
      g. Site used and any site reactions from SCIG
IV. REFERENCES


Approved:

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