MUNSON HEALTHCARE

Form # 8730 (10/14)

AUTHORIZATION IS GRANTED TO DISPENSE AND ADMINISTER AN ALTERNATE DRUG PRODUCT ACCEPTABLE TO THE MEDICAL STAFF'S PHARMACY COMMITTEE UNLESS THE DRUG PRODUCT IS SPECIFICALLY CIRCLED.

1. Allergies / Sensitivities (include types of reactions)_____

_____

2. Height:_____cm Actual Weight:_____kg

3. **INDICATION**

Hypogammaglobulinemia
- ☐ hereditary
- ☐ nonfamilial

Common Variable Immunodeficiency - CVID
- ☐ with predominant abnormalities of B-cell numbers & function
- ☐ with autoantibodies to B or T-cells
- ☐ other common variable immunodeficiencies
- ☐ unspecified

Chronic Lymphocytic Leukemia of B-cell type
- ☐ not having achieved remission
- ☐ in relapse

Other Lymphoid Leukemia
- ☐ not having achieved remission
- ☐ in relapse

☐ **Kawasaki Disease (Mucocutaneous Lymph Node Syndrome)**
☐ **Idiopathic Thrombocytopenic Purpura - ITP**
☐ **Evans Syndrome**

Myasthenia Gravis
- ☐ **without** (acute) exacerbation
- ☐ **with** (acute) exacerbation

☐ **Guillan-Barre Syndrome**
☐ **Chronic Inflammatory Demyelinating Polyneuritis**
☐ **Other Inflammatory Polyneuropathies (mutifocal motor neuropathy)**

Multiple Myeloma
- ☐ not having achieved remission
- ☐ in remission
- ☐ in relapse

☐ **Lambert-Eaton Syndrome, unspecified**

Dermato(poly)myositis: ☐ **Juvenile** or ☐ **Other** (select one)
- ☐ with respiratory involvement
- ☐ with myopathy
- ☐ other organ involvement
- ☐ unknown / unspecified organ involvement
- ☐ in neoplastic disease_____ (specify neoplasm type / site)

☐ Other_____ (specify)

4. **CORMORBIDITIES:**

☐ Coronary Artery Disease	☐ Diabetes	☐ Renal Impairment	☐ CHF
☐ Hypertension	☐ Previous MI, DVT, PE, CVA, TIA	☐ Migraine	☐ Asthma
☐ Cancer	☐ Smoker	☐ Obesity	

- **Nursing to assess hydration. Call prescribing physician if patient may be volume depleted prior to beginning infusion.**

5. **IVIG PHARMACY TO DOSE (See back for infusion guidelines):**

☐ _____mg/kg (IBW) IV Frequency_____(IVIG dose will be rounded to the nearest vial size)
Duration:_____doses or _____weeks (Maximum duration of 1 year) - if not specified, the order will be considered as a one-time order and must be rewritten. Refer to back page for specific infusion instructions.

☐ Low IgA content required (Pharmacy to dispense Gammagard Brand)

- For patients at risk for thrombolembolic event or with underlying renal insufficiency or those at risk for developing renal insufficiency (h/o athersclerosis, multiple CV risk factors, impaired cardiac output, known or suspected hyperviscosity, diabetes, age greater than 65, volume depletion, sepsis, patients receiving known nephrotixic drugs, paraproteinemia) refer to back page for specific maximum dosing.
- Patients who are on long term IVIG therapy may have physician orders with a more rapid rate of titration to decrease total infusion time.

6. **PREMEDICATION - Administer 30 minutes prior to IVIG infusion:**

☐ Acetaminophen (Tylenol) 650 mg orally	☐ Diphenhydramine (Benadryl) 25mg PO
☐ Diphenhydramine (Benadryl) 25mg IVPush	☐ Hydrocortisone 100 mg IVP
☐ Famotidine 20 mg PO	☐ Other: _____

7. **REACTION MANAGEMENT**
- For common reactions (including fever, headache, nausea or vomiting)
  - Temporarily stop or slow infusion rate to that previously tolerated by patient and treat symptoms as required.
- For chills or rigors
  - Decrease infusion rate to that previously tolerated by patient and notify physician.
  - Adults only - May administer meperidine (Demerol) 12.5 mg IVP, may repeat once 15 minutes after original dose, if needed.
- For serious reactions (including hypotension, angioedema, bronchospasms, dyspnea and anaphylaxis) page physician
  - Stop infusion, notify physician and treat symptoms as required.
  - Begin IV of 0.9 % Sodium Chloride at 10mL/hr to keep line open (may administer 250 mL fluid bolus PRN hypotension).
  - Adults - Administer diphenhydramine 25 mg IVP (may repeat x 1 if needed), hydrocortisone 100 mg IVP, epinephrine 0.3 mg IM, Famotidine 20 mg IVP
  - Once stable and physician agrees - restart IVIG and decrease infusion rate to that previously tolerated by patient.

8. **MONITORING**
Vital signs and temperature pre-infusion, then 15 minutes after the start of infusion for new patients who are being titrated; then PRN, then 15-30 minutes after infusion completion.

Patient ID Label

The physician's full signature, date & time is to follow the order - Abbreviations for names are not acceptable.

_____

Signature Date Time

IVIG ADULT ORDERS

Adult Administration Considerations for IVIG Orders

Those with underlying renal disease or judged to be at risk of developing thrombotic events should not be infused rapidly with any IVIG product

- Hyperviscosity
- Diabetes
- Age>65
- Volume Depletion
- Sepsis
- Concurrent nephrotoxic drugs
- Paraproteinemia
- Atherosclerosis
- Multiple CV risk factors
- Impaired Cardiac Output

Nursing to assess patient's hydration level. Call prescribing physician if patient may be volume depleted prior to beginning infusion. No other medication through the same line with IVIG

INFUSION GUIDELINES

All dosing of IVIG is based off of Ideal Body Weight (IBW) – Programming of the Alaris pump requires IBW

Gammagard Liquid 10%

- Begin infusion at 0.8 mg/kg/min for 30 minutes, then if tolerated increase every 30 minutes as follows:
- 2mg/kg/min, then 4 mg/kg/min, then 6 mg/kg/min, then to max rate of 8 mg/kg/min.
- Max rate for pre-existing renal insufficiency or thrombotic risk (see above) is 3.3 mg/kg/min

Carimune

- The first infusion of Carimune must be given as a 3% solution. Subsequent infusions may be given at a 6% concentration if tolerated.
- Begin infusion at 0.5 mg/kg/min for 30 minutes, then increase as follows
- *Every 30 minutes if tolerated: 1mg/kg/min, 1.5 mg/kg/min, 2 mg/kg/min, 2.5 mg/kg/min, then to a max rate of 3mg/kg/min*
- (Max rate for pre-existing renal insufficiency or thrombotic risk is 1.9 mg/kg/min)

ADVERSE EFFECTS

- Common: headaches, fatigue, backache, leg cramps, lightheadedness, fever, urticaria, flushing, slight elevation of blood pressure, nausea, vomiting.
- *Temporarily stop or slow infusion rate to that previously tolerated by patient and treat symptoms as required*
- For Chills or Rigors
- *Decrease infusion rate to that previously tolerated by patient and notify physician.- Adults only - May administer meperidine (Demerol) 12.5 mg IVP, may repeat once 15 minutes after original dose, if needed, per provider order.*
- Serious side effects (rare): hypotension, angioedema, bronchospasms, dyspnea, renal failure, aseptic meningitis, transfusion-related lung injury, thrombotic events and anaphylaxis.
- *Stop infusion, notify physician, and treat symptoms as required and ordered. Begin IV of Sodium Chloride 0.9% at 20 ml/hr to keep line open. May administer 250 ml fluid bolus per provider approval. Administer diphenhydramine 25mg IVP, hydrocortisone 100 mg IVP , and epinephrine 0.3 mg IM, famotidine 20 mg IVP as ordered. Once stable and physician agrees – restart IVIG and decrease infusion rate to that previously tolerated by patient.*
- Anaphylaxis risk increases with repeated administrations of IVIG products.
- Caution should be used in patients with IgA less than 0.05 g/L

USUAL DOSES

- Dose or frequency may be adjusted relative to serum IgG levels when used for immunodeficiency syndrome or B-cell Chronic Lymphocytic Leukemia
- Primary Immunodeficiency- 300-600 mg/kg once every month
- Idiopathic Thrombocytopenic Purpura - 400-1000 mg/kg daily x 2-5 days; additional doses based upon clinical response
- Kawasaki Syndrome - 2000 mg/kg x 1 over 10-12 hours or 400 mg/kg daily x 4 days
- Multifocal Motor Neuropathy (MMN) - 500-2400 mg/kg once every month

NURSING CONSIDERATIONS

- May be infused peripherally; large bore veins are recommended to decrease discomfort at infusion site
- IVIG line may be flushed with 0.9% Sodium Chloride. Do not y-site any solutions containing Sodium Chloride with IVIG
- Administer at room temperature
- IVIG is derived from pooled human plasma; handle as a blood product
- Do not shake or use pneumatic tube
- **Nursing Care:**
  - Take baseline set of vitals and temperature
  - Pre-medication, if ordered, give 30-60 minutes prior to administration
  - In some patients fluid intolerance is a complication. Observe for symptoms that may include tachycardia, rales, and changes in respiratory pattern and notify physician.
- IVIG administration may decrease patient's antibody response to vaccines and increase side effects.
- Alert patient/family to discuss any needed vaccinations with physician prior to receiving vaccinations post infusion.
- Assess whether the patient has had vaccines in the last month and inform the physician.