Transforming Operations Trinity Health P & T Committee Initiatives
The first cycle of Trinity Health Medication Therapy Transforming Operations (TO) initiatives will be implemented 11/8/2016. The initiatives include Intravenous Immune Globulin, Treatment of Hypercalcemia and Ertapenem (Invanz) Intravenous. All three initiatives closely resemble prior SJH P & T Committee policies and restrictions. The changes are described below. EPIC screen shots are provided on the second and third pages.

Intravenous Immune Globulin (IVIG) Order Set and Policy Revisions
Old
In 2013, SJH IVIG policy was revised to adjust IVIG orders based upon patient’s ideal body weight (BW). If the patient’s total BW was greater than 120%, then an adjusted body weight was used to calculate the dose instead of ideal or actual body weight.

New
EPIC Order Set is indication and dose specific (see example on page 2).
Dose will continue to be based on ideal body weight, but the adjusted body weight dose will be used when total body weight is greater than 130% ideal BW.
Exceptions: Pregnancy, bone marrow or solid organ transplant.
Out-patient IVIG infusion patients on established doses will remain on established doses.

Hypercalcemia, symptomatic
At SJH, formulary agents for treatment of symptomatic hypercalcemia are the bisphosphonate Zometa (zoledronic acid) IV and Miacalcin (calcitonin) injection. Following calcitonin injection, the onset of action is approximately 2 hours and serum calcium may be reduced by 1-2 mg/dL in the first 24 hours. Due to its short duration of action and decreased efficacy following multiple doses limiting its utility, calcitonin restrictions were enacted in October 2015.

Old
Calcitonin injection restricted to 200 units subcu q12h x 48 hours (4 doses).
No EPIC order panel.

New
EPIC Order Panel (see page 2) created to pull together first line therapies all in one location: hydration, furosemide, zoledronic acid.
Calcitonin injection restricted to 200 units subcu q12h x 2 doses. No repeat doses.

Ertapenem (Invanz) IV
Old
First dose restriction, must be approved by Infectious Disease physician. Exception: patients with ESBL infection.

New
1. Ertapenem is inappropriate for empiric treatment or surgical prophylaxis when the organism is unknown.
2. Ertapenem is appropriate with susceptible ESBL producing infections in the absence of co-infection with Pseudomonas or Acinetobacter (use meropenem).
3. May be appropriate when transitioning a patient (ie one dose and then discharge) to Home/SNF therapy when selection is based upon susceptibility data and the patient’s ADR and allergy history.
4. First dose restriction, must be approved by Infectious Disease physician. Exception: patients with ESBL infection or patients meeting criteria #3.
5. Revised EPIC Order process (see page 3).

Upcoming Transforming Operations Initiatives
November
Intravenous Iron: Iron dextran (INFed) and sodium ferric gluconate (Ferrlecit)

December
PCI agents: bivalirudin (Angiomax), eptifibatide (Integrilin), abciximab (Reopro)

For more information on Pharmacy & Therapeutics Committee actions, please contact Karen Whalen, Drug Information Pharmacist 448-6519.
Intravenous Immune Globulin (IVIG) Order Set

**Order Set**

- **IV Immune Globulin (IVIG) Indication Based Orders**
  
  **General**
  
  - Vital Signs
  - Vital signs
    - Routine: Every hour, first occurrence today at 1000, until specified
    - Vital signs every 15 minutes, 1 hour, then hourly until 10 minutes post-infusion; each rate increase, vital signs should be taken after the first 15 minutes, then every hour.
  
  **Nursing Assessments**
  
  - Nurse should remain with patient during first 15 minutes of Immune Globulin Infusion.
    - Routine: As needed, starting today at 0951, until specified.
  
  **Discharge**
  
  - Outpatients may be discharged 30 minutes after the infusion is complete.
    - Routine: Once first occurrence today at 0932.

**Medications**

**IVIG Orders - Select Indication**

- Dose will be rounded to the nearest vial size.
- Ideal Body Weight (IBW) will be used for any weight-based doses unless patient's Total Body Weight (TBW) is > 130% of IBW. In this case, dose will be based on Adjusted Body Weight (ABW).
  
  \[
  \text{ABW} = \frac{\text{IBW} + 0.4 \times \text{TBW}}{1.4}
  \]

- For any change in weight greater than 10 kg, a new order for dose change will be required to be written and signed.

- IV Immune Globulin Policy
  
  - IVIG: Chronic Lymphocytic Leukemia
  - IVIG: Guillain-Barré Syndrome
  - IVIG: Idiopathic Thrombocytopenic Purpura (ITP)
  - IVIG: Kawasaki Disease
  - IVIG: Myasthenia Gravis / Neuromuscular Disease
  - IVIG: Organ Transplant
  - IVIG: Primary Immunodeficiency Disease

**Additional Medications**

- PRN medications for anaphylactic reaction:
  - Hydrocortisone sodium succinate (Solu-Cortef): injection 100 mg
  - Methylprednisolone (Solumedrol): injection 50 mg
  - EPINEPHrine (ADRENALIN) injection 0.5 mg
  - Subcutaneous: Once as needed, other: anaphylactic reaction. Starting today at 0951, For 1 dose.

**Hypercalcemia, symptomatic**

**Hypercalcemia Treatment Orders**

**Calcitonin (Miacalcin) is restricted to patients with severe hypercalcemia (Corrected calcium greater than or equal to 14 mg/dL) AND life-threatening symptoms (e.g. AV block, hypotonicity, seizures, coma).**

Consider adding Calcitonin if symptoms develop during treatment with hydration and/or bisphosphonates.

- **sodium chloride 0.9% (NS) bolus 1.000 mL**
  
  1.000 mL, Intravenous, Administer over 1 hour, Once, Today at 1100. For 1 dose

- **sodium chloride 0.9% (NS) infusion**
  
  at 150 mL/hr, Intravenous, Continuous, Starting today at 1100 Goal to maintain urine output of at least 100 mL/hr. Notify MD/CA to reassess fluid rate if goal effect not achieved within 6 hours.

- **Furosemide (Lasix) injection**
  
  Intravenous, Once

- **Zoledronic acid (Zometa) 4 mg in sodium chloride (NS) 0.9% 100 mL IVPB**
  
  4 mg, Intravenous, Once, Infuse over 15 minutes

- **Calcitonin (Miacalcin) injection**
  
  200 Units, Subcutaneous, Every 12 hours (relative), for 2 doses

Next Required
Ertapenem (Invanz) IV

ertapenem (INVanz) 1 g in sodium chloride (NS) 0.9 % 100 mL pigtail

<table>
<thead>
<tr>
<th>Dose:</th>
<th>1 g</th>
</tr>
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<tbody>
<tr>
<td>Administer Dose:</td>
<td>1 g</td>
</tr>
<tr>
<td>Administer Amount:</td>
<td>1 g</td>
</tr>
<tr>
<td>Route:</td>
<td>Intravenous</td>
</tr>
<tr>
<td>Frequency:</td>
<td>Every 24 hours (relative) Q24H</td>
</tr>
<tr>
<td>For:</td>
<td></td>
</tr>
<tr>
<td>Starting:</td>
<td>9/22/2016 Today Tomorrow At: 1400</td>
</tr>
<tr>
<td>First Dose:</td>
<td>Today 1400 Until Discontinued</td>
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<tr>
<td>Scheduled Times:</td>
<td>Hide Schedule</td>
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<tr>
<td>9/22/16 1400</td>
<td></td>
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<td>9/23/16 1400</td>
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<tr>
<td>9/24/16 1400</td>
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<tr>
<td>Order has no end date or number of doses, so more times will be scheduled at a later date.</td>
<td></td>
</tr>
<tr>
<td>Administer Over:</td>
<td>30 Minutes</td>
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</tbody>
</table>

If I choose NO:

Is this a first dose to transition to home therapy? [Yes] [No]

Does the patient have a history of ESBL? [Yes] [No]

If I choose NO to this question, ID approval is required:

Does the patient have a history of ESBL? [Yes] [No]

This anti-infective requires approval from infectious disease. Please indicate approving infectious disease physician.

If I choose YES to the hx of ESBL, no ID approval needed, but need to describe history:

Is this a first dose to transition to home therapy? [Yes] [No]

Does the patient have a history of ESBL? [Yes] [No]

Please describe history of previous ESBL:

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