**SEVERE SEPSIS / SEPTIC SHOCK REFERENCE AND AUDIT TOOL – ST. JOSEPH HOSPITAL**

**INITIAL ASSESSMENT AND IDENTIFICATION**

- **Does Patient have two or more of the following SIRS criteria?**
  - Temperature above 38°C (100.9°F) or less than 36°C (96.8°F)
  - Heart Rate greater than 90
  - Respiration rate greater than 20 or PaCO2 less than 32
  - WBC greater than 12,000 or less than 4,000 or greater than 10% bands

  Assessment by: ________________________ Title __ Date / Time ____ / ____

- MD and/or MET TEAM Contacted (Date / Time ____ / ____)

**OBTAIN MD ORDER FOR:**
- LABS / TESTS (if not already done)
- Treating Hypotension (See page 2 of order set)

- Is SBP less than 90 and/or MAP less than 65 after NS boluses?

- Is Lactate level greater than 4 or Organ Dysfunction?

- Is SBP less than 90 and/or MAP less than 65 after NS boluses?

**EARLY GOAL DIRECTED THERAPY (EGDT)**

- 1st Blood Culture set drawn: Date / Time _____/_____
- 1st Lactate level: Date / Time _____/_____
- 1st Antibiotic administered: Date / Time _____/_____

- Initiate Severe Sepsis Order Set (See page 2 of order set)
- ADMIT TO CRITICAL CARE: Date / Time ______ / ______
- Obtain Universal Consent for Central Line placement, Arterial Line Placement, and consent for intubation
- Initiate Broad Spectrum Antibiotics (see back of page 2 for suggested regimens)
- Supplemental O2 to maintain O2 saturation greater than 92%

- MAP (Step 2)
  - MAP greater than 100
  - MAP 65-100
  - MAP less than 65

- MAP greater than 100
- MAP 65-100
- MAP less than 65

- CVP greater than 15
- SBP greater than 160
- CVP less than 8

- ScvO2 or MvO2 greater than 70%
- ScvO2 or MvO2 less than 70%
- Hgb less than 10

- Start Vasopressors
  - Date / Time ______ / ______
  - (See page 2 of order set)

- Transfuse pRBC to obtain Hgb greater than 10

- EARLY GOALS ACHIEVED
  - Initiate Continuing Therapy Phase orders (see page 2 of order set)

- NS 500 mL IV bolus, repeat until CVP greater than 8
- If CVP less than 4, give Albumin 25% 100 mL IV over 20 minutes Q 2 HRS X 2 doses in addition to above
- If CVP greater than 8, continue IVF NS @ 150 mL/hr

- Start Dobutamine IV drip at 2 mCg/min (if HR less than 100 and SBP greater 100)
- Intubation and Mechanical Ventilation

**EARLY GOAL DIRECTED THERAPY (EGDT)**

- Consider nitroglycerin IV drip at 10-60 mCg/min until CVP less than 12 or SBP less than 140

**St. Joseph Hospital
ST JOSEPH HEALTH SYSTEM
SEVERE SEPSIS / SEPTIC SHOCK
REFERENCE AND AUDIT TOOL**

PATIENT ID

6031-0003 (Audit Tool) (Rev. 2/09/09)
**Worksheet for the consideration of Xigris® (activated drotrecogin alfa).**

(please complete Drotrecogin Alfa (activated) order form if therapy is to be initiated)

**Patient should meet all of the following criteria to receive drotrecogin alfa:**
- Patient has met criteria for *diagnosis of sepsis* and is currently enrolled in the severe sepsis pathway.
- Evidence of at least one of the following signs of organ dysfunction due to sepsis must be present, with a duration of less than 24 hours.
  - Cardiavascular - An arterial systolic blood pressure less than 90 mm Hg or a mean arterial pressure (MAP) less than 70 mm Hg for at least one hour despite adequate fluid resuscitation, adequate intravascular volume status, or the use of vasopressors to maintain BP.
  - Renal - Urine output less than 0.5 ml/kg/hour for one hour, despite adequate fluid resuscitation, adequate intravascular volume status, or the use of vasopressors to maintain BP.
  - Respiratory - PaO2/FiO2 less than 250 (if the pt. has pneumonia, the pt. must have a PaO2/FiO2 less than 200).
  - Hematologic - Platelet count of less than 80,000/microm^3^ of a 50% decrease in the platelet count from the highest value recorded over the last 3 days.
  - Metabolic Acidosis - pH less than 7.3 or base deficit greater than 5.0 mmol/L or a plasma lactate level greater than 1.5 times the upper limit of normal.
- Other evidence of organ dysfunction:

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**APACHE SCORE** greater than or equal to 25

**Recommended contraindications for the use of Xigris® (activated drotrecogin alfa) include:**
- Trauma patients with increased risk of life-threatening bleeding
- Active internal bleeding
- Recent (within 3 months) hemorrhagic stroke
- Recent (within 2 months) intracranial or intraspinal surgical procedure, or severe head trauma
- Presence of epidural catheter
- Intracranial neoplasm or mass lesion or evidence of cerebral herniation
- Less than 12 hours post surgery requiring general or spinal anesthesia or potential need for surgery during infusion.

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**APACHE SCORE:**

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**Suggested Initial Empiric Anti-infective Therapy for Patients with a Diagnosis of Sepsis**

<table>
<thead>
<tr>
<th>Source of Infection</th>
<th>First-line</th>
<th>Second-line (PCN allergy)**†‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown Origin</td>
<td>Meropenem 1 gm IV Q 8 HRS + Vancomycin* 1 Gm IV X 1, then per Rx</td>
<td>Ciprofloxacin 400 mg IV Q 8 HRS + Vancomycin* 1 Gm IV X 1, then per Rx + Tobramycin 5 mg/kg X 1, then per Rx</td>
</tr>
<tr>
<td>Community-acquired Pneumonia</td>
<td>Ceftiraxone 1 Gm IV Q 24 HRS + Aztreonam 500 mg IV Q 24 HRS</td>
<td>Levofloxacin 750 mg IV Q 24 HRS</td>
</tr>
<tr>
<td>VAP / HCAP / Nosocomial Pneumonia</td>
<td>Ceftiraxone 2 Gm IV Q 8 HRS + Tobramycin 7 mg/kg X 1, then per Rx + Vancomycin* 1 Gm IV X 1, then per Rx</td>
<td>Aztreonam 2 Gm IV Q 8 HRS + Tobramycin 7 mg/kg X 1, then per Rx + Vancomycin* 1 Gm IV X 1, then per Rx + Aztreonam 1 Gm IV X 1, then per Rx</td>
</tr>
<tr>
<td>Urosepsis</td>
<td>Ceftiraxone 1 Gm IV Q 24 HRS</td>
<td>Levofloxacin 500 mg IV Q 24 HRS</td>
</tr>
<tr>
<td>Intra-abdominal</td>
<td>Zosyn 3.375 Gm IV Q 6 HRS</td>
<td>Zosyn 3.375 Gm IV Q 6 HRS+ Metronidazole 500 mg IV Q 8 HRS</td>
</tr>
<tr>
<td>Soft-tissue</td>
<td>Zosyn 3.375 Gm IV Q 6 HRS + Vancomycin* 1 Gm IV X 1, then per Rx</td>
<td>Zosyn 500 mg IV Q 24 HRS + Metronidazole 500 mg IV Q 8 HRS</td>
</tr>
<tr>
<td>Febrile Neutropenia</td>
<td>Cefepime 2 Gm IV Q 8 HRS + Vancomycin* 1 Gm IV X 1, then per Rx</td>
<td>Aztreonam 2 Gm IV Q 8 HRS + Tobramycin 5 mg/kg X 1, then per Rx + Vancomycin* 1 Gm IV X 1, then per Rx + Vancomycin* 1 Gm IV X 1, then per Rx</td>
</tr>
</tbody>
</table>

**Notes**
- **PCN allergy:** IgE mediated hypersensitivity (rash, hives, and laryngospasms) to PCN & cephalosporins
- **Nosocomial MRSA Risk:** recent hospitalization, indwelling central line, history of MRSAs, colonization, residence in a nursing home or transfer from another hospital, recent surgery, dialysis
- **Community-associated MRSA Risk:** recent influenza illness, necrotizing pneumonia, leucopenia, and / or hemoptysis
- **Line sepsis, known resistant organisms or unstable patients**

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**Reference:**