

# Adult Sepsis Treatment

**\*\*\*Order Sepsis Careset\*\*\***

## Sepsis Criteria

- Suspected/proven infection or Patient on Antibiotic therapy (not prophylaxis)
- Indication: Start Tx if 2 out of the following present:** Temp > 100.4 or < 96.8; HR > 90, Resp Rate >20 or PaCO<sub>2</sub> < 32; WBC > 12,000 or < 4,000 or bands 10%; Altered Mental Status; SBP <100 mmHg
- Verification: Tx MUST continue if additional one of the following present:**  
SBP < 90 mmHg or MAP < 65 mmHg or decrease in SBP >40 mmHg from last normal SBP for the patient, Altered Mental Status, **Lactate > 2 mmol/L (measure within 3 hrs)**, SpO<sub>2</sub> < 90% on room air or PaO<sub>2</sub>/FiO<sub>2</sub> < 300, Scr > 2 mg/dL or Urine output < 0.5 mL/hr/hr for more than 2 hours, Bilirubin > 2 mg/dL, Platelet count <100,000, INR > 1.5 or aPTT > 60 sec

**Septic Shock defined as Sepsis in which hypotension (MAP<65) and lactate >2mmol/L persist despite adequate fluid resuscitation**

### Hemodynamic Support and Adjunctive Therapy

**Administer within 3 hrs**

#### Fluid Resuscitation (Via peripheral line)

NS 500mL every 15 mins x 4 doses then contact provider (LR also an option)

#### Resuscitation goals during first 6 hours:

- Central venous pressure (CVP) 8-12 mmHg
- Mean arterial pressure (MAP) ≥ 65 mmHg
- Urine output ≥ 0.5 mL/kg/hr
- Central venous or mixed venous PO<sub>2</sub> sat 70% or 65%

**If fluid unsuccessful**

### Antimicrobial Therapy

**Obtain within 45 minutes**

Blood cultures before antimicrobial therapy if delay <45mins:  
**Blood cultures x 3 from 3 different sites**  
(Use device as site if present)

**Treatment within 3 hrs**

#### Initial Empiric Broad Coverage:

- Vancomycin 15mg/kg IV Daily** (Allergy options: Cubicin or Zyvox)
  - Meropenem (Merrem) 1000mg IV q8hr** (Other options: Zosyn or Cefepime)
- Additional Options:
- Tobramycin (Pseudomonal Risk Pts)
  - Levaquin or Zithromax (Atypical Bacteria)
  - Fluconazole (Antifungal)
  - Acyclovir (Antiviral)

### Other Supportive Therapy

#### Glucose control:

**Goal of 110-180 mg/dL**  
Refer to Insulin Infusion Protocol or may use critical sliding scale if infusion not necessary

#### DVT Prophylaxis:

Lovenox 40mg SubQ Daily (30mg if CrCl <30mL/min or heparin)

#### PUD Prophylaxis:

Protonix 40mg IV Push Daily (Alternative: Pepcid 20mg IV Push BID)

*Only use in patients with risk factors*

#### Nutrition:

First Line: Oral or enteral nutrition  
Second Line: IV glucose  
Last Line: TPN

#### Vasopressor Therapy Titrated to goals: (Via central line)

First Line: Norepinephrine (Levophed) at initial rate of 8-12 mcg/min

First alternative: EPINEPHrine at 2-10 mcg/min

Adjunctive therapy: Vasopressin at 0.01-0.03 units/min (If unresponsive to above tx or to decrease Norepinephrine dosage)

Third option: Use Dopamine only if patient has low risk of tachyarrhythmias and absolute or relative bradycardia (Initial rate 1-5 mcg/kg/min)

**If unsuccessful**

#### Corticosteroids

Last Line Therapy: Hydrocortisone 200mg IV continuous infusion Daily