

**Signs & Symptoms of Critical Sepsis**

- Hypotension (MAP  $\leq$  5<sup>th</sup> percentile for age)
- Poor perfusion
- Reduced urine output
- Tachypnea/new oxygen requirement
- Mental status changes

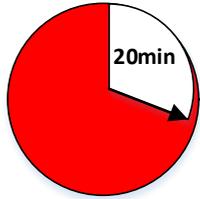
**Critical Sepsis - PICU Phase**

**Inclusion Criteria:**

- Suspected infection with organ dysfunction
- OR
- Positive screen with LIP-initiated resuscitation

**SHOCK TIME GOALS**

**Time Zero=**  
Flagged for critical sepsis

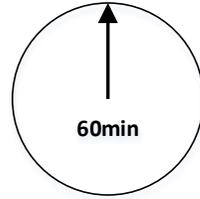


- Add supplemental oxygen regardless of SpO<sub>2</sub>
- Evaluate IV access; additional IV/IO access rapidly as needed
- Administer 20 mL/kg boluses (first within 20 minutes and evaluate clinically after each bolus)
- Order labs and medications per **PICU CRITICAL SEPSIS ORDER SET**
- **ADMINISTER ANTIBIOTICS WITHIN 1 HOUR**

- Monitor clinical response
- Vital signs
- Frequent reassessment

- Infection source control
- Administer antibiotics in **FIRST HOUR**

- Repeat fluid boluses (monitor clinical response with each fluid bolus)



- FLUID REFRACTORY SHOCK**
- Consider CVL, arterial line, foley catheter
  - Consider ECHO, PRBCs if Hgb <10 g/dL

- WARM SHOCK**
- Titrate norepinephrine
  - Consider epinephrine, vasopressin

- COLD SHOCK/LOW BP**
- Titrate epinephrine
  - Consider norepinephrine

- COLD SHOCK/NORMAL BP**
- Titrate epinephrine
  - Consider milrinone

- CATECHOLAMINE RESISTANT SHOCK**
- Consider stress dose hydrocortisone
  - Consider other causes
    - Pneumothorax
    - Pericardial effusion
    - Intra-abdominal hypertension
    - Primary cardiac dysfunction

**HYPOTENSION**  
MAP = 40 + (1.5 X AGE in yrs)  
\*age >13 yrs MAP >60

- CONSIDER ECMO**
- Obtain vessel ultrasound
  - Consult Surgery

**RESPIRATORY SUPPORT**

- Consider intubation with continued acidosis and/or worsening hypoxia or hypercapnia
- Ensure adequate resuscitation prior to intubation
- See **CRITICAL SEPSIS ORDER SET for intubation drugs**

**ADJUNCT THERAPIES**

- Diuresis for fluid overload (ensure hemodynamic stability)
- Renal replacement therapy: consider with oliguria/anuria and fluid overload unresponsive to diuretics
- Plasma exchange: consider EARLY with thrombocytopenia and MODS

**CLINICAL GOALS**

1. Shock reversal- normal cap refill, normal UOP, resolution of altered mental status, normal mean arterial BP, SPO<sub>2</sub> 92-97
2. Antibiotics within 60 minutes
3. Ensure adequate and ongoing fluid resuscitation