Critical Sepsis - PICU Phase

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

### Signs & Symptoms of Critical Sepsis
- Hypotension (MAP ≤ 5th percentile for age)
- Poor perfusion
- Reduced urine output
- Tachypnea/new oxygen requirement
- Mental status changes

**SHOCK TIME GOALS**
- Time Zero: Flagged for critical sepsis
- 20 min
- 60 min

**Critical Sepsis - PICU Phase**

**Inclusion Criteria:**
- Suspected infection with organ dysfunction
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**ADD SUPPLEMENTAL OXYGEN REGARDLESS OF SPO₂**
- 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

**FREQUENCY:**
- **Add Supplemental Oxygen:** Regardless of SpO₂
- **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

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

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

**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, SPO₂ 92-97
2. Antibiotics within 60 minutes
3. Ensure adequate and ongoing fluid resuscitation

**Draft**

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