Critical Sepsis - CVICU Phase

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

**Time Zero**
Flagged for critical sepsis

- Add supplemental oxygen regardless of SpO₂
- Evaluate IV access; additional IV/IO access rapidly as needed
- Administer 10 mL/kg boluses (first within 20 minutes and evaluate clinically after each bolus)
- Order labs and medications per CVICU CRITICAL SEPSIS ORDER SET
- ADMINISTER ANTIBIOTICS WITHIN 1 HOUR

- Monitor clinical response
- Vital signs
- Frequent reassessment

- Infection source control
- 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 CV Surgery

**Respiratory Support**
- Consider intubation with continued acidosis and/or worsening hypoxia or hypercapnia
- Ensure adequate resuscitation prior to intubation
- See Airway Bundle Sheet at bedside for intubation drugs

**Adjuvant 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 goal per patient anatomy
2. Antibiotics within 60 minutes
3. Ensure adequate and ongoing fluid resuscitation

**Draft**
3/8/21

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

**DRAFT**
3/8/21

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Critical Sepsis - CVICU Phase

Neonates <28 days old

- Less than 7 days old prior to surgery
  - Ampicillin + Gentamicin OR Cefotaxime

- 7-28 days old prior to surgery
  - Hospitalized < 3 days
    - Ampicillin + Cefotaxime OR Gentamicin
  - Hospitalized > 3 days
    - Cefepime + Vancomycin

- < 28 days old after surgical intervention
  - Cefepime + Vancomycin

Non-Neonates

- Cefepime + Vancomycin

If patient has recent cultures or is persistently colonized with an organism – ensure empiric therapy will apply appropriate coverage for the organism AND previous susceptibilities.

If after initial Vancomycin dose and patient with continued impaired renal function, consider ID Consult and transition to Daptomycin.