

**RECOGNITION**

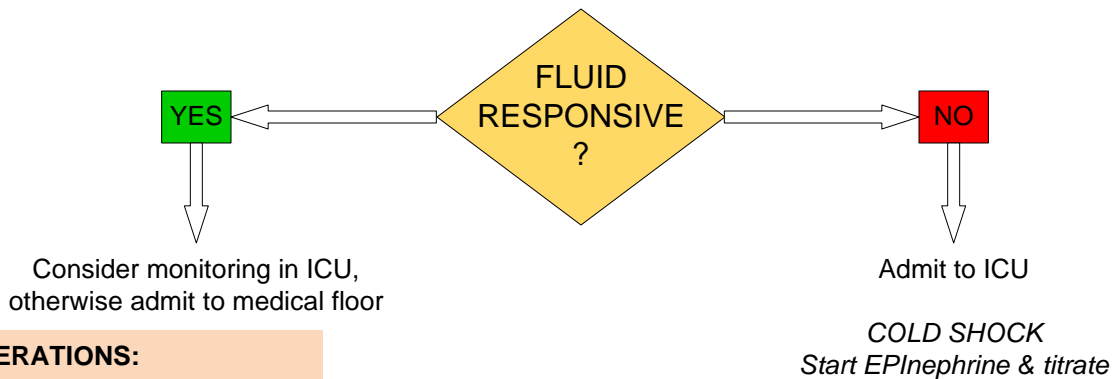
Triage screening tool for all patients to determine risk  
Trigger + → huddle + → initiate sepsis clinical practice guideline  
Use specific CPGs for high-risk patient populations (see page 2)

**ACCESS & STABILIZATION**

Administer oxygen, place monitors  
Establish IV x1-2 → IO if no IV in 15 min or 4 attempts  
Obtain sepsis labs  
 - CBC w/ diff, CMP, lactate, consider procalcitonin/CRP/ESR, VBG  
 - Cultures as indicated: Blood, urine, CSF, wound  
 Bolus NS or LR 20mL/kg → Rapid push, first bolus in <20min  
 - Repeat up to 60mL/kg, monitor for fluid overload  
 - Consider inotropes if fluid refractory  
 - Consider steroids if catecholamine dependent shock suspected (steroids >2 weeks, adrenal insufficiency, purpura fulminans)

**TREATMENT**

Antibiotics  
 - Ceftriaxone & vancomycin for non-specific broad spectrum coverage  
 - Use specific guidelines for choice when available for high risk populations  
 Source control  
 - Surgical or IR consultation for operative control



**OTHER CONSIDERATIONS:**

- Correct electrolytes
- Correct hypoglycemia/hyperglycemia
- Escalate respiratory support as needed
- Consider blood if Hgb <10g/dL
- Consider alternate causes of hypotension and their treatments
  - Pericardial effusion
  - Pneumothorax
  - Abdominal compartment syndrome
  - Cardiac failure
  - Kawasaki related shock
  - Toxic shock syndrome
- Consider inflammatory markers to trend

## ACCESS

### Central line

- Port access in first 15 minutes
- If unable to access rapidly, place peripheral IV or IO as indicated

### Central line with PIV/IO

- If hypotension with fluid push through central line, consider PIV/IO for fluids
- Blood cultures from every lumen of chronic indwelling central venous catheters
- Antibiotics should preferentially go through central venous access given risk for line infection

### Peripheral IV

- Consider 2 large bore IVs for resuscitation
- Attempts should be limited in favor of IO placement if unstable or difficult to obtain

## FLUID/BLOOD ADMINISTRATION

### Crystalloid

Rapid infusion options

**Push-pull**

Pressure bag

Rapid infuser

Volume goal - consider warmed fluids

20mL/kg in first 20 minutes,

60mL/kg within the first hour

### Blood products

pRBCs for Hgb <10

Platelets for platelets <50k

FFP for DIC or abnormal coag studies

### SPECIAL POPULATIONS:

Neonate <28 days

Central line

Oncology/chemotherapeutics

Sickle cell disease

Medically complex

Adrenal insufficiency

Immunosuppressed

Organ/bone marrow transplant

Short gut syndrome

Asplenia

*Many of these have current guidelines, please use specific guidelines where applicable*

## PRESSORS

COLD SHOCK: Start EPInephrine & titrate: 0.05-0.2 mcg/kg/min

WARM SHOCK: Start NOREPinephrine & titrate: 0.05-0.2 mcg/kg/min

If NE unavailable, start epinephrine to transition

## REFERENCES

Goldstein, B., Giroir, B., & Randolph, A. (2005). International pediatric sepsis consensus conference: definitions for sepsis and organ dysfunction in pediatrics. *Pediatric critical care medicine*, 6(1), 2-8.

Rhodes, A., Evans, L. E., Alhazzani, W., Levy, M. M., Antonelli, M., Ferrer, R., ... & Rochwerg, B. (2017). Surviving sepsis campaign: international guidelines for management of sepsis and septic shock: 2016. *Intensive care medicine*, 43(3), 304-377.

Brierley, J., Carcillo, J. A., Choong, K., Cornell, T., DeCaen, A., Deymann, A., ... & Duncan, A. (2009). Clinical practice parameters for hemodynamic support of pediatric and neonatal septic shock: 2007 update from the American College of Critical Care Medicine. *Critical care medicine*, 37(2), 666.

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