

# Fluid Refractory Shock, Warm/Cold and Catecholamine Resistant Shock

## Fluid Refractory Shock

- Shock persists despite 60 mL/kg fluid resuscitation

## Catecholamine Resistant Shock

- Shock persists despite direct-acting catecholamines (epinephrine, norepinephrine)

## Warm Shock

- Vasodilation, low systemic vascular resistance, high cardiac output
- Warm extremities, flash capillary refill < 1 sec, “bounding” pulses
- Decreased diastolic blood pressure, wide pulse pressure (> 40 mm Hg)

## Cold Shock

- High systemic vascular resistance, low cardiac output
- Cold extremities, prolonged capillary refill (> 3 seconds)
- Faint pulses
- Normal or increased diastolic blood pressure
- Narrow pulse pressure (< 30 mm Hg)

### WARM SHOCK

Titrate NOREPINEPHRINE starting dose: 0.05 mcg/kg/min

### Second line:

Add epinephrine, or vasopressin

### COLD SHOCK – LOW BP

Titrate EPINEPHRINE starting dose: 0.05 mcg/kg/min

### Second line:

Add norepinephrine, or dobutamine

### COLD SHOCK – NORMAL BP

If in shock (i.e., ScvO<sub>2</sub> < 70%), titrate EPINEPHRINE starting dose: 0.03 mcg/kg/min

### Consider:

Dobutamine starting dose: 5mcg/kg/min or Milrinone starting dose: 0.3mcg/kg/min, no loading dose (Caution: Milrinone may cause hypotension)

**Arterial line, CVL, Foley should be placed for patients on vasoactive infusion for > 1 hour, if not already in place.**

Retrieved from: <http://www.chop.edu/clinical-pathway/icu-clinical-pathway-infants-28-days-and-children-severe-sepsisseptic-shock>

*These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly these guidelines should guide care with the understanding that departures from them may be required at times.*

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