

# Pediatric Hypotension/Shock

**History**

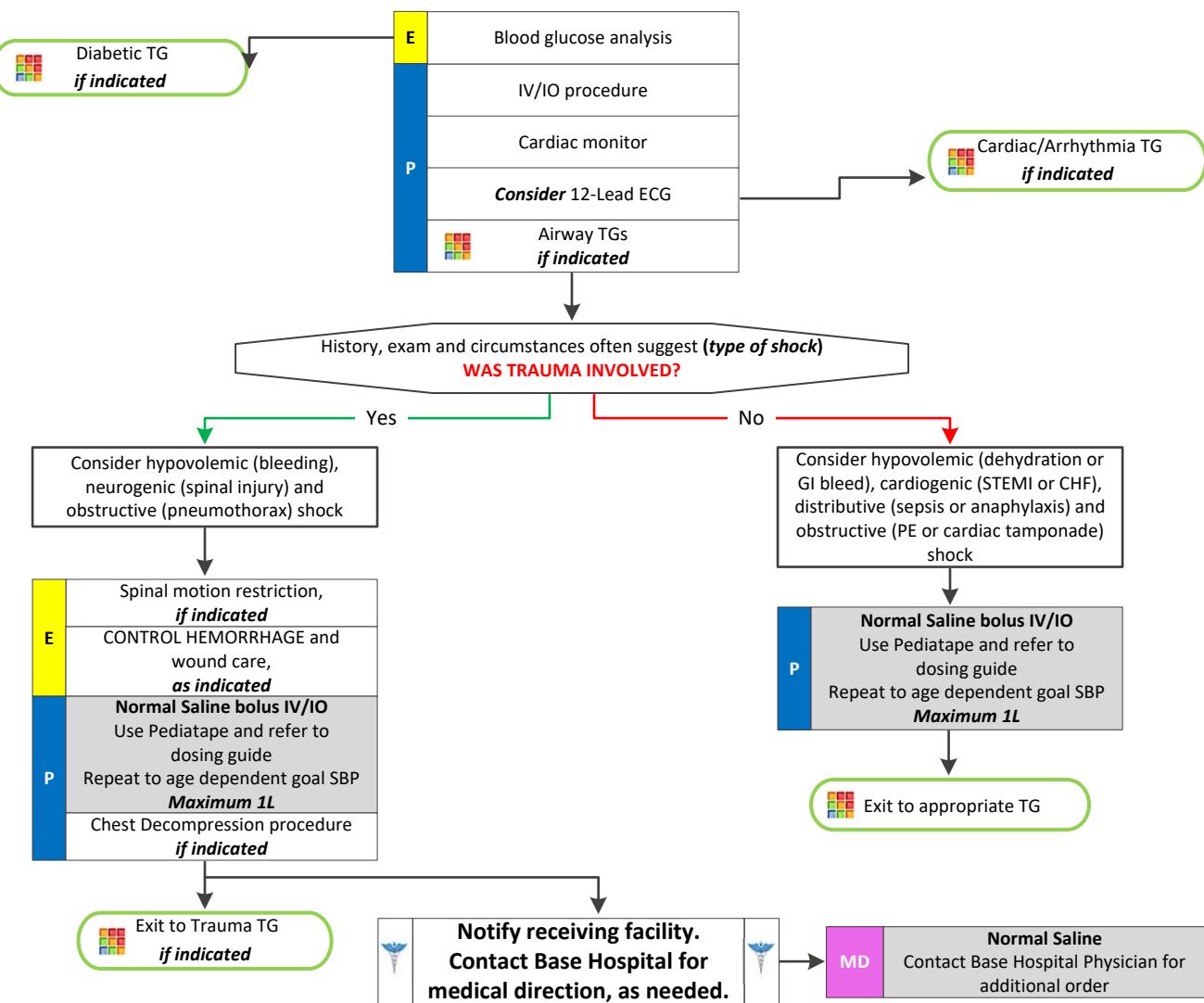
- Blood loss
- Vomiting
- Diarrhea
- Fever
- Infection

**Signs and Symptoms**

- Restlessness or confusion
- Weakness or dizziness
- Weak, rapid pulse
- Pale, cool, clammy skin signs
- Delayed capillary refill
- Hypotension
- Tarry stools

**Differential**

- Shock (hypovolemic, cardiogenic, septic, neurogenic, or anaphylaxis)
- Trauma
- Infection
- Dehydration
- Congenital heart disease
- Medication or Toxin



# Pediatric Hypotension/Shock

**Pearls**

- Hypotension is age dependent. This is not always reliable and should be interpreted in context with the patient's typical BP, if known. Shock may be present with a seemingly normal blood pressure initially.
- Hypotension is defined as:
  - Neonate: < 60mmHg or weak pulses
  - Infant: < 70mmHg or weak pulses
  - 1-10 years: < 70mmHg + (age in years x2)
  - Over 10 years: < 90mmHg
- Systemic BP goals are defined as:
  - Neonate: > 60mmHg
  - Infant: > 70mmHg
  - 1-10 years: > 70mmHg + (age in years x2)
  - Over 10 years: > 90mmHg
- Common pediatric terms used to describe children are defined as:
  - Newly born are ≤ 24 hours old
  - Neonates are ≤ 28 days old
  - Infants are ≤ 1 year old
- Normal blood pressure, delayed capillary refill, diminished peripheral pulses, and tachycardia indicates compensated shock in children.
- Hypotension and delayed capillary refill > 4 seconds indicates impending circulatory failure.
- Systolic blood pressure in children may not drop until the patient is 25-30% volume depleted. This may occur through dehydration, blood loss, or an increase in vascular capacity (e.g. anaphylaxis).
- Decompensated shock (hypotension with capillary refill > 5 seconds) may present as PEA in children.
- Sinus tachycardia is the most common cardiac rhythm in encountered in children.
- SVT should be suspected in the heart rate is greater than 180 in children ages (1-8) or greater than 220 in infants.
- Hypoglycemia may be found in pediatric shock, especially in infants.
- Pediatric shock victims are at risk for hypothermia due to their increased body surface area, exposure, and rapid administration of IV/IO fluids.



## Treatment Guideline P07