Pediatric Shock
For patients with poor perfusion not rapidly responsive to IV fluids

**History**
- Blood loss (amount?)
- Fluid loss (vomiting, diarrhea or fever)
- Infection (e.g., UTI, cellulitis, etc.)
- Cardiac ischemia
- Medications
- Allergic reaction
- History of poor oral intake

**Signs and Symptoms**
- Restlessness or confusion
- Weakness or dizziness
- Weak, rapid pulse
- Pale, cool, clammy skin signs
- Delayed capillary refill
- Hypotension
- Coffee-ground emesis
- Tarry stools

**Differential**
- Shock (see pearls for types)
- Cardiac dysrhythmias
- Pulmonary embolus
- Tension pneumothorax
- Medication effect or overdose
- Vasovagal effect

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**History, exam and circumstances often suggest (type of shock)**

**WAS TRAUMA INVOLVED?**

**Yes**
- Trauma

**No**
- Consider hypovolemic (dehydration or GI bleed), cardiogenic, distributive (sepsis or anaphylaxis), and obstructive (PE or cardiac tamponade) shock

**Apply Oxygen to maintain goal \( \text{SpO}_2 \geq 92\% \)**
- Blood glucose analysis
- Cardiac monitor
- IV/IO procedure
- 12-Lead ECG
- EtCO\(_2\) monitoring

**If age-dependent hypotensive or evidence of poor perfusion**
- Normal Saline bolus IV/IO
  - May repeat x2
- If unresponsive to IV fluids,
  - Dopamine

**Notify receiving facility. Consider Base Hospital for medical direction**

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**SAN MATEO COUNTY HEALTH EMERGENCY MEDICAL SERVICES**

**Treatment Protocol** P28

Effective April 2024
Pearls

- Shock is often present with normal vital signs and may develop insidiously. Tachycardia may be the only manifestation.
- For patients with suspected cardiogenic shock who are not responsive to an initial fluid bolus, limit additional IV fluids and avoid Dopamine. Contact Base Hospital for medical direction.
- Consider all causes of shock and treat per appropriate Treatment Protocol.
- Hypovolemic shock:
  - Hemorrhage, trauma, or GI bleeding,
- Cardiogenic shock:
  - Myocarditis, heart failure, congenital, cardiomyopathy, myocardial contusion, ruptured ventricle/septum-valve or toxins.
- Distributive shock:
  - Sepsis, anaphylactic, neurogenic, or toxins.
  - Neurogenic shock generally presents with normal to slow heart rate with acute spinal cord injuries.
- Obstructive shock:
  - Pericardial tamponade, pulmonary embolus (PE), or tension pneumothorax.
  - Signs may include hypotension with distended neck veins, tachycardia, unilateral decreased breath sounds or muffled heart tones.