2.16 HYPOTENSION/SHOCK
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General Assessment

• Shock is characterized by decreased oxygen delivery, increased oxygen consumption and/or inadequate oxygen utilization leading to cellular and tissue hypoxia.
• Shock most commonly manifests as hypotension (**SBP <90mmHg in adults**)
• Additional signs of shock may include:
  ◦ Cool, clammy, mottled skin, delayed capillary refill
  ◦ Pallor- due to decreased skin perfusion
  ◦ Altered level of consciousness due to decreased perfusion to brain
• Shock in children may be subtle and hard to recognize (see Pediatric Shock & Hypotension 8.11)
• Differentiate between possible underlying cause of shock to promptly initiate additional therapy

BLS General Management
• Position of comfort • NPO • Oxygen as indicated • Early recognition and notify hospital staff about hemodynamic instability
ALS General Management
• Establish IV/IO with **Normal Saline** ~~TKO~~. • Initiate early fluid resuscitation and vasopressors to maintain/restore adequate perfusion to vital organs

ANAPHYLACTIC SHOCK
• **Protocol 2.02 Allergic Reaction/Anaphylaxis**

HEMMORHAGIC SHOCK
Examples include trauma, surgery, gastrointestinal bleeding, post-partum hemorrhage
ALS Treatment
• If trauma suspected, stop hemorrhage if possible (see 4.05 extremity bleeding control) • If gynecologic or peri-partum hemorrhage suspected, see Section 5.0 Obstetrics & Gynecologic • Consider **Normal Saline** fluid bolus • Consider early transport

HYPOVOLEMIC SHOCK
Hypovolemic shock (non-hemorrhagic): Examples include dehydration from excessive heat, vomiting, diarrhea Neurogenic shock**:** characterized by flaccid paralysis, loss of reflexes. Examples include traumatic spinal cord injury or non-traumatic injury (e.g. tumors, infection) Septic shock**:** caused by whole-body inflammatory response to infection. Often characterized by a fever and tachycardia. Example infections include pneumonia, urinary tract infections, or skin

infections.

ALS Treatment

- **Normal Saline** fluid bolus
- If SBP <70 after fluid bolus, consider additional fluid bolus **and/or** epinephrine infusion titrate to goal SBP 90.

CARDIOGENIC SHOCK

Example causes may include myocardial infarction, heart failure, arrhythmia, valve disorders

ALS MANAGEMENT

- Obtain ECG
- **Epinephrine Infusion**: prepare 1 mcg/mL infusion. Infuse at 1-3 drops/second IV/IO (6-18 mL/min) using 10 drops/mL macrodrip chamber. Titrate to goal SBP >90.

Comments

- ~~**Compensated shock:** Anxiety, agitation, disorientation, tachycardia, normal B/P, capillary refill normal to delayed, symptoms of allergic reaction, pallor, and/or diaphoresis.~~
- ~~**Decompensated shock:** Decreased level of consciousness, tachycardia changing to bradycardia, hypotension, delayed capillary refill, cyanosis, and/or unequal central and distal pulses.~~
- ~~Follow if patient has suspected anaphylaxis.~~