



## Section 3: Adult Circulation/Shock Protocols

### SHOCK PEARLS and KEY POINTS

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
<ul style="list-style-type: none"> <li>Blood loss - vaginal or gastrointestinal bleeding, AAA, ectopic pregnancy</li> <li>Fluid loss - vomiting, diarrhea, fever</li> <li>Infection</li> <li>Cardiac ischemia (MI, CHF)</li> <li>Medications</li> <li>Allergic reaction</li> <li>Pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>Restlessness, confusion</li> <li>Weakness, dizziness</li> <li>Weak, rapid pulse</li> <li>Pale, cool, clammy skin</li> <li>Delayed capillary refill</li> <li>Hypotension</li> <li>Coffee-ground emesis</li> <li>Tarry stools</li> </ul>	<ul style="list-style-type: none"> <li>Shock</li> <li>Hypovolemic</li> <li>Cardiogenic</li> <li>Septic</li> <li>Neurogenic</li> <li>Anaphylactic</li> <li>Ectopic pregnancy</li> <li>Dysrhythmias</li> <li>Pulmonary embolus</li> <li>Tension pneumothorax</li> <li>Medication effect / overdose</li> <li>Vasovagal hypotension</li> <li>Physiologic (pregnancy)</li> </ul>

#### SHOCK

- Exam: Mental Status, Skin, Heart, Lungs, Abdomen, Back, Extremities, Neuro
- Hypotension can be defined as a systolic blood pressure of less than 90 systolic
- Consider performing orthostatic vital signs on patients in non-trauma situations if suspected blood or fluid loss
- Consider all possible causes of shock and treat per appropriate protocol

#### Anaphylactic Shock

- Do not confuse Epinephrine (Adrenaline) 1:1000 IM and 1:10,000 IV**
- Treat patients with a history of anaphylaxis aggressively.
- Routine assessment and supportive care of the patient's respiratory and cardiovascular systems is required.
- Use caution when using Epinephrine (Adrenaline) for patients over fifty years of age.
- Use caution when using Epinephrine (Adrenaline) for patients with a heart rate greater than 120 bpm.
- When possible, remove any stingers.

#### Cardiogenic Shock

- Circulatory failure is due to inadequate cardiac function.
- Be aware of patients with congenital defects.
- Cardiogenic shock exists in the prehospital setting when an MI is suspected and there is no specific indication of volume related shock.
- Pulmonary edema or CHF may cause cardiogenic shock. (Pediatrics with congenital heart defects may rarely have pulmonary edema)
- Marked, symptomatic tachycardia and bradycardia will also cause cardiogenic shock. Fix rate first.



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### SHOCK PEARLS and KEY POINTS-cont.

#### **Hypovolemic Shock**

- Patients suffering from hemorrhagic shock secondary to trauma, should be treated under the Trauma Criteria, and should be rapidly transported to the nearest appropriate facility.
- Initiate a second large bore IV for all patients in hypovolemic shock, resuscitate to a BP of 90 systolic.

#### **Neurogenic Shock**

- Cushing's reflex is a sign of increased ICP.
- Cushing's reflex is a high blood pressure, low pulse rate, and widening pulse pressure.

#### **Septic Shock**

- Hypotensive septic shock patients require aggressive fluid resuscitation and should receive vasopressor support if not responding to fluid challenges.  
Be alert for septic shock in the elderly.