

2.16 HYPOTENSION/SHOCK

General Assessment
<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Position of comfort NPO Oxygen as indicated Early recognition and notify hospital staff about hemodynamic instability
ALS General Management
<ul style="list-style-type: none"> Establish IV/IO with Normal Saline Initiate early fluid resuscitation and vasopressors to maintain/restore adequate perfusion to vital organs

ANAPHYLACTIC SHOCK
<ul style="list-style-type: none"> Protocol 2.02 Allergic Reaction/Anaphylaxis

HEMMORHAGIC SHOCK
Examples include trauma, surgery, gastrointestinal bleeding, post-partum hemorrhage
ALS Treatment
<ul style="list-style-type: none"> 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
<p><u>Hypovolemic shock</u> (non-hemorrhagic): Examples include dehydration from excessive heat, vomiting, diarrhea</p> <p><u>Neurogenic shock</u>: characterized by flaccid paralysis, loss of reflexes. Examples include traumatic spinal cord injury or non-traumatic injury (e.g. tumors, infection)</p> <p><u>Septic shock</u>: 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.</p>

ALS Treatment
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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.