

# Summary: Managing Shock

Here is a summary of general management of shock and specific management by etiology.

## **General Management**

- Oxygen
- Pulse oximetry
- ECG monitor; frequent blood pressure monitoring
- BLS as indicated
- IV/IO access
- Point-of-care glucose testing

## **Specific Management of Hypovolemic Shock**

- Nonhemorrhagic
  - 20 mL/kg isotonic crystalloid bolus, repeat as needed
  - Consider colloid
- Hemorrhagic
  - Control external bleeding
  - 10-20 mL/kg isotonic crystalloid bolus, repeat 1 or 2 × as needed
  - Transfuse PRBCs as indicated

## **Specific Management of Distributive Shock**

- Septic
  - Refer to the Pediatric Septic Shock Algorithm
- Anaphylactic
  - IM epinephrine (or autoinjector)
  - Fluid boluses (10-20 mL/kg isotonic crystalloid)
  - Albuterol
  - Antihistamines, corticosteroids
  - Epinephrine infusion
- Neurogenic
  - 20 mL/kg isotonic crystalloid bolus, repeat as needed
  - Vasopressor

## **Specific Management for Cardiogenic Shock**

- Bradyarrhythmia/tachyarrhythmia
  - Refer to the Pediatric Bradycardia With a Pulse Algorithm
  - Refer to the Pediatric Tachyarrhythmia With a Pulse Algorithm
- Other (eg, congenital heart disease, myocarditis, cardiomyopathy, poisoning)
  - 5 to 10 mL/kg isotonic crystalloid bolus, repeat as needed
  - Inotropic and/or vasoactive infusion
  - Antidote for poisoning
  - Consider expert consultation

## ***Specific Management for Obstructive Shock***

- Ductal-dependent (left ventricular outflow obstruction)
  - Prostaglandin E<sub>1</sub>
  - Expert consultation
- Tension pneumothorax
  - Needle decompression
  - Tube thoracostomy
- Cardiac tamponade
  - Pericardiocentesis
  - 5-10 mL/kg isotonic crystalloid bolus
  - Expert consultation
- Pulmonary embolism
  - 5-10 mL/kg isotonic crystalloid bolus, repeat as needed
  - Consider thrombolytics, anticoagulants
  - Expert consultation