Shock Module
Questions

1. What are the 4 generally accepted classifications of shock?

2. Hypotension and altered mental status are hallmarks of what stage of shock?

3. The overall goal in managing shock is to:

    a. Keep the patient out of the ICU.
    b. Treat with antibiotics within the first hour.
    c. Restore blood pressure and tissue perfusion.
    d. Avoid fluid overload and the need for assisted ventilation.

4. What is the importance of early intervention in shock?

5. When would administering large volumes of crystalloid be contraindicated?

Written by Julia M. Gabhart, MD
Lucile Packard Children's Hospital, Stanford

Shock Module
Answers

1. The four generally accepted classifications of shock are hypovolemic, distributive, cardiogenic, and obstructive.

2. Hypotension and altered mental status are hallmarks of hypotensive or uncompensated shock.

3. c. Restore blood pressure and tissue perfusion. It may be better for a patient who is being resuscitated to be in an ICU and the patient may need so much fluid to restore perfusion that intubation or other assisted ventilation is required. If sepsis is suspected, the goal is to administer antibiotics within the first 15-30 minutes, but this is not the overall goal in managing shock.

4. Shock is a progressive process and evidence shows that early intervention makes a difference in pediatric morbidity and mortality (see slide 8 of PowerPoint presentation).

5. Large volumes of crystalloid are rarely contraindicated. In cardiogenic shock, the heart may not be able to handle increased preload and the patient may clinically worsen as large volumes of fluid are given. However, for patients in shock, remember that restoring end organ perfusion and normalizing blood pressure are the goals. Therefore, in cases of cardiogenic shock a trial of smaller boluses of crystalloid (10 ml/kg) may be helpful, but one must carefully assess for change in physical exam after the fluid is given. Many institutions would call for early involvement of intensivists and cardiologists when resuscitating a patient in cardiogenic shock, given that the fluid overload required to maintain tissue perfusion may push the patient to requiring intubation or other artificial ventilation. Another example in which it may be harmful to give large volumes of crystalloid is in patients with diabetic ketoacidosis. Sudden fluid shifts in these patients are thought to contribute to cerebral edema and slow replacement of fluid deficit is generally recommended.