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SEPTIC SHOCK- FLUID BOLUS DECISIONS AND ASSESSMENT OF FLUID RESPONSIVENESS

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Abstract: *Circulatory shock is defined as acute cardiovascular dysfunction resulting in inadequate delivery of oxygen and substrates necessary to meet tissue metabolic demand. The history includes pertinent issues related to etiology, such as fever, trauma and gastro-intestinal losses. Clinical examination consists of respiratory mechanics and cardiovascular status including oxygenation, respiratory rate, work of breathing, level of consciousness, heart rate, blood pressure, peripheral perfusion and adequacy of urine output. Laboratory evaluation should include markers of global oxygenation, particularly arterial blood gas, lactate and central venous oxygen saturation. While clinical assessment of perfusion may be sufficient to recognize shock and guide initial management, patients in whom shock is unresolved need further cardiovascular monitoring depending on availability and expertise. Fluid bolus decisions may be guided by dynamic tests of fluid responsiveness which rely on cardio-respiratory interactions, while simultaneously assessing for fluid tolerance.*

Shock management is targeted towards treating underlying etiology and implementation of physiologically based therapies.

Keywords: *Shock, Fluid bolus, Physiology, Responsiveness, Tolerance.*

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Points to Remember

- ***In a child with shock, the history must include pertinent issues related to etiology such as fever, trauma, gastro-intestinal losses.***
- ***Clinical evaluation includes assessment of respiratory mechanics and cardiovascular status, including oxygenation, respiratory rate, work of breathing, level of consciousness, heart rate, blood pressure, peripheral perfusion and urine output.***
- ***After initial stabilization and initial 10-20 ml/kg fluid bolus, further fluid boluses should ideally be based on tests of fluid-responsiveness.***

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