

underlying neuromuscular disease or the receipt of general anesthesia

4. Leukocyte count elevated or depressed for age (not secondary to chemotherapy-induced leukopenia) or more than 10% immature neutrophils

**Infection:** A suspected or proven (by positive culture, tissue stain, or PCR test) infection caused by any pathogen; or a clinical syndrome associated with a high probability of infection. Evidence of infection includes positive findings on clinical examination, imaging, or laboratory tests (e.g., white blood cells in a normally sterile body fluid, perforated viscus, chest radiograph consistent with pneumonia, petechial or purpuric rash, or purpura fulminans).

**Sepsis:** SIRS in the presence of or as a result of suspected or proven infection.

**Severe sepsis:** Sepsis plus cardiovascular organ dysfunction or ARDS or two or more other organ dysfunctions.

*ARDS*, Acute respiratory distress syndrome; *CHD*, congenital heart disease; *PCR*, polymerase chain reaction.

From Goldstein B, Giroir B, Randolph A, et al: International Pediatric Sepsis Consensus Conference: definitions for sepsis and organ dysfunction in pediatrics, *Pediatr Crit Care Med* 6(1):2-8, 2005; used with permission.

Most of the physiologic effects of shock occur because the exaggerated immune response triggers more than 30 different mediators that result in diffuse vasodilation, increased capillary permeability, and maldistribution of blood flow. This impairs oxygen and nutrient delivery to the cells, resulting in cellular dysfunction. If the process continues, multiple-organ dysfunction occurs and may result in death. [Table 23-6](#) includes the age-specific vital signs and laboratory values reflective of septic shock in children. Although the incidence of shock continues to be on the increase, survival rate due to early detection and treatment