

Table 1: Definition of Sepsis Syndrome

| Term | Definition |
|------------------------|---|
| Sepsis syndrome | Sepsis, severe sepsis or septic shock |
| Sepsis | Systemic Inflammatory Response Syndrome (SIRS) in the presence of, or as a result of, suspected or proven infection |
| SIRS | <p>The presence of at least two of the following four criteria, <u>one of which must be abnormal temperature or leukocyte count</u>:</p> <ul style="list-style-type: none"> • Core temperature of > 38.5°C or < 36°C. • Tachycardia, defined as a mean heart rate > 2 SD above normal for age in the absence of external stimulus, chronic drugs, or painful stimuli; or otherwise unexplained persistent elevation over a 0.5-to 4-hr time period OR for children <1 yr old: bradycardia, defined as a mean heart rate <10th percentile for age in the absence of external vagal stimulus, β- blocker drugs, or congenital heart disease; or otherwise unexplained persistent depression over a 0.5-hr time period. • Mean respiratory rate > 2 SD above normal for age or mechanical ventilation for an acute process not related to underlying neuromuscular disease or the receipt of general anesthesia. • Leukocyte count elevated or depressed for age (not secondary to chemotherapy-induced leukopenia) or > 10% immature neutrophils. |
| Infection | A suspected or proven (by positive culture, tissue stain, or polymerase chain reaction 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 exam, 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). |
| Suspected infection | <p>Infection is suspected when one of the following is documented:</p> <ul style="list-style-type: none"> • Orders for antibiotics OR • Antibiotics administered OR • Orders for urine, blood or spinal culture OR • Urine, blood or spinal culture drawn OR • Chart notation of: <ul style="list-style-type: none"> • "Rule out infection" OR • "Suspected infection" OR • "Rule out sepsis" OR • "Suspected sepsis" |
| Severe sepsis | Sepsis plus one of the following: cardiovascular organ dysfunction OR acute respiratory distress syndrome OR two or more other organ dysfunctions. |

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|---------------------|---|
| Organ dysfunctions | <p>Cardiovascular</p> <p>Despite administration of isotonic intravenous fluid bolus ≥ 40 mL/kg in 1 hour,</p> <ul style="list-style-type: none"> • Decrease in BP (hypotension) < 5th percentile for age or systolic BP < 2 SD below normal for age <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Need for vasoactive drug to maintain BP in normal range (dopamine > 5 μg/kg/min or dobutamine, epinephrine, or norepinephrine at any dose) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • <u>Two of the following:</u> <ul style="list-style-type: none"> - Unexplained metabolic acidosis: base deficit > 5.0 mEq/L - Increased arterial lactate > 2 times upper limit of normal - Oliguria: urine output < 0.5 mL/kg/hr - Prolonged capillary refill: > 5 seconds - Core to peripheral temperature gap $> 3^{\circ}$C <p>Respiratory</p> <ul style="list-style-type: none"> • PaO₂/FIO₂ < 300 in absence of cyanotic heart disease or preexisting lung disease <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • PaCO₂ > 65 torr or 20 mm Hg over baseline PaCO₂ <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Proven need or $> 50\%$ FIO₂ to maintain saturation $\geq 92\%$ <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Need for non-elective invasive or noninvasive mechanical ventilation <p>Neurologic</p> <ul style="list-style-type: none"> • Glasgow Coma Score ≤ 11 <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Acute change in mental status with a decrease in Glasgow Coma Score ≥ 3 points from abnormal baseline <p>Hematologic</p> <ul style="list-style-type: none"> • Platelet count $< 80,000/\text{mm}^3$ or a decline of 50% in platelet count from highest value recorded over the past 3 days (for chronic hematology/oncology patients) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • International normalized ratio > 2 <p>Renal</p> <ul style="list-style-type: none"> • Serum creatinine ≥ 2 times upper limit of normal for age or 2-fold increase in baseline creatinine <p>Hepatic</p> <ul style="list-style-type: none"> • Total bilirubin ≥ 4 mg/dL (not applicable for newborn) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • ALT 2 times upper limit of normal for age |
| Septic Shock | Sepsis and cardiovascular organ dysfunction |

Table 2: Codes to Identify Sepsis Syndrome

| Condition Name | ICD-9 Code(s) |
|--|---------------|
| Septicemia | 038.xx |
| Streptococcal septicemia | 038.0 |
| Staphylococcal septicemia | 038.1 |
| Staphylococcal septicemia, unspecified | 038.10 |
| Methicillin susceptible Staphylococcus aureus septicemia | 038.11 |
| Methicillin resistant Staphylococcus aureus septicemia | 038.12 |
| Other staphylococcal septicemia | 038.19 |
| Pneumococcal septicemia [Streptococcus pneumoniae septicemia] | 038.2 |
| Septicemia due to anaerobes | 038.3 |
| Septicemia due to other gram-negative organisms | 038.4 |
| Septicemia due to gram-negative organism, unspecified | 038.40 |
| Septicemia due to Haemophilus influenzae [H. influenzae] | 038.41 |
| Septicemia due to escherichia coli [E. coli] | 038.42 |
| Septicemia due to pseudomonas | 038.43 |
| Septicemia due to serratia | 038.44 |
| Other septicemia due to gram-negative organisms | 038.49 |
| Other specified septicemias | 038.8 |
| Unspecified septicemia | 038.9 |
| Severe sepsis | 995.92 |
| Sepsis | 995.91 |
| Septicemia [sepsis] of newborn | 771.81 |
| Systemic inflammatory response syndrome due to non-infectious process with acute organ dysfunction | 995.94 |
| Bacteremia | 790.7 |
| Septic shock | 785.52 |