Coding Sepsis and SIRS

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by Lou Ann Wiedemann, MS, RHIA

Coding a chart with a sepsis diagnosis can prove challenging for coders. The coding guidelines for sepsis as well as ambiguous provider documentation can often mean an extended length of time reviewing a chart only to place it on hold for a physician query. This column outlines the clinical differences between systemic inflammatory response syndrome (SIRS), sepsis, severe sepsis, and septic shock as well as coding guidelines for each diagnosis.

Parsing Diagnoses

Although the terms *septicemia* and *sepsis* are often used interchangeably by providers, they are not considered synonymous terms in coding.[1]

Providers often use the term **urosepsis** to describe both septicemia and a urinary tract infection. For accurate coding, coders should determine if the term urosepsis is being used to describe sepsis or urinary tract infection. However, if a coder finds conflicting documentation within the medical record stating both a diagnosis of urosepsis and septicemia, the physician should be queried to determine which diagnosis is intended.

Bacteremia is a blood poisoning in which bacteria are found in the blood stream and identified through laboratory testing. It is most often asymptomatic and not thought to be life threatening. Bacteremia can progress to septicemia, but only when there is a more infectious process going on with the patient.[2] Documentation of bacteremia with clinical signs and symptoms of a systemic infection such as fever, chills, or tachycardia should be clarified with the provider to ensure proper code assignment.

Septicemia is a systemic disease associated with the presence of pathogenic microorganisms within the blood stream. The microorganisms can include bacteria, fungi, viruses, or other organisms. Septicemia is an acute illness and should not be confused with a chronic condition. A patient diagnosed with septicemia is no longer equated to mean the patient has sepsis.[3,4]

Although the clinical manifestations of septicemia are often those associated with SIRS, a diagnosis of septicemia should be based strictly on physician documentation. A coder should not assume a patient has septicemia based solely on blood culture results. A patient may show clinical signs of septicemia despite negative blood cultures.

Provider documentation of streptococcal septicemia is considered a generalized infection caused by a streptococcal organism, and only code 038.0 should be assigned. The coder may also want to query the physician in order to determine if the patient has sepsis.

Systemic inflammatory response syndrome (SIRS) is defined as a clinical response to an insult, infection, or trauma that includes a systemic inflammation as well as elevated or reduced temperature, rapid heart rate, rapid respiration, and elevated white blood count. According to the American College of Chest Physicians and the Society of Critical Care Medicine, the clinical manifestations of SIRS include:

- Fever of greater than 100.4 or hypothermia with a temperature of less than 98.6
- Leukocytosis, white blood cell count of greater than 12,000 cells per cubic millimeter
- Leukopenia, white blood cell count of less than 4,000 cells per cubic millimeter
- Tachycardia
- Hyperventilation

Coding for SIRS requires a minimum of two codes: a code for the underlying cause or infection (such as trauma) and a code from subcategory 995.9x, Systemic inflammatory response syndrome.

Sepsis is defined as SIRS due to an infection. The inclusion term *sepsis* was added to code 995.91, SIRS due to infectious process without organ dysfunction. Although sepsis and septicemia may be used interchangeably by the provider, from a coding perspective they are not synonymous. Coders should query the physician for clarification when appropriate.

Coding sepsis requires a minimum of two codes: a code for the systemic infection (e.g., 038.xx) and the code 995.91, SIRS due to infectious process without organ dysfunction. If no causal organism is documented within the medical record, query the physician or assign code 038.9, Unspecified septicemia.

The sequencing of sepsis as a principal diagnosis relies heavily on provider documentation. If sepsis is present on admission and meets the definition of principal diagnosis, the systemic infection code (038.xx, 112.5, etc.) should be sequenced first, followed by 995.91, SIRS due to infectious process without organ dysfunction. If sepsis develops during the hospital stay, both the systemic infection code and the 995.91 code should be sequenced as secondary diagnoses.

Severe sepsis is defined as SIRS due to an infection that progresses to organ dysfunction, such as kidney or heart failure. In order to code a patient with severe sepsis, the documentation within the medical record should clearly indicate that organ failure is related to sepsis. If the documentation is not clear, always query the physician for accurate coding.

Coding severe sepsis requires a minimum of three codes: a code for the systemic infection (e.g., 038.xx), the code for severe sepsis 995.92 (SIRS due to infectious process with organ dysfunction), and the code for the associated organ failure.

The sequencing of severe sepsis as a principal diagnosis also relies heavily on provider documentation. If severe sepsis is clearly present on admission and meets the definition of principal diagnosis, the systemic infection code (038.xx, 112.5, etc.) should be sequenced first, followed by the code 995.92, SIRS due to infectious process with organ dysfunction. If severe sepsis develops during the hospital stay, code the systemic infection code 995.92 and organ dysfunction should be sequenced as a secondary diagnosis.

Septic shock generally refers to circulatory failure associated with severe sepsis, and therefore represents a type of acute organ dysfunction.[5] Therefore, septic shock meets the definition for severe sepsis. Cases of septic shock should follow coding and sequencing guidelines for severe sepsis. In addition to codes for severe sepsis, code 785.52, Septic shock, should also be placed as a secondary diagnosis.

Because septic shock indicates the presence of severe sepsis, it is not necessary for the physician to document both severe sepsis and septic shock. For septic shock cases, code 995.92, Severe sepsis, must be assigned with 785.52, even if the term severe sepsis is not documented within the medical record.

Sepsis/Severe Sepsis/SIRS with a Localized Infection. If the patient's reason for admission is sepsis or severe sepsis or SIRS and a localized infection such as cellulitis, the code for the systemic infection is sequenced first, followed by code 995.91 or 995.92, then the code for the localized infection. If the patient is admitted for the localized infection and the sepsis/severe sepsis/SIRS does not develop until after admission, the localized infection should be sequenced first, followed by the code for the systemic infection and then by 995.91 or 995.92 as secondary diagnoses.

Coding SIRS, sepsis, and septicemia is often difficult under the best of circumstances and relies heavily on quality physician documentation as well as correct application of the Official Guidelines for Coding and Reporting for inpatient care and official guidelines published in AHA *Coding Clinic* guidelines. In the absence of documentation the coder should always query the provider for additional clarification.

Coding Review	
995.90	**Unspecified SIRS** Requires two codes: First code the underlying condition, Then 995.90.
995.91	**Sepsis (SIRS due to infectious process without organ dysfunction)** Requires two codes:

	First code the underlying systemic infection condition, Then 995.91.
995.92	**Severe sepsis (SIRS due to infectious process with organ dysfunction)** Requires three codes: First code the underlying systemic infection condition, Then 995.92, And then use an additional code to identify the organ failure.
995.93	**SIRS due to noninfectious process without organ dysfunction** Requires two codes: First code the underlying condition, Then 995.93.
995.94	**SIRS due to noninfectious process with organ dysfunction** Requires three codes: First code the underlying condition, Then 995.94, And then use an additional code to identify the organ failure.
785.52	**Septic shock** Requires four codes: First code the initiating system infection or trauma, Then either 995.92 or 995.94, Then the code to identify the organ failure, And then 785.52.

Notes

1. National Center for Health Statistics (NCHS). "International Classification of Diseases, Ninth Edition, Clinical Modification, Sixth Edition." Available online at www.cdc.gov/nchs/datawh/ftpserv/ftpicd9/ftpicd9.htm#guide.
2. American Hospital Association (AHA). *Coding Clinic* fourth quarter (1993): 25–30.
3. AHA. *Coding Clinic* fourth quarter (2003): 79.
4. AHA. *Coding Clinic* second quarter (2000): 3–6.
5. NCHS. "ICD-9-CM Official Guidelines for Coding and Reporting." Available online at www.cdc.gov/nchs/datawh/ftpserv/ftpicd9/icdguide06.pdf.

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Lou Ann Wiedemann *(lou-ann.wiedemann@ahima.org) is director of professional practice resources at AHIMA.*

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