DRG 416 — Septicemia

ICD-9-CM Coding Guidelines

The below listed septicemia guidelines are not inclusive. The coder should refer to the applicable Coding Clinic guidelines for additional information. The Centers for Medicare & Medicaid Services considers Coding Clinic, published by the American Hospital Association, to be the official source for coding guidelines. Hospitals should follow the Coding Clinic guidelines to assure accuracy in ICD-9-CM coding and DRG assignment.

Note: The information in this section includes Coding Clinic guidelines through the first quarter, 2006. As of October 1, 2006, DRG 416 was replaced with DRG 575, Septicemia with mechanical ventilation, 96+ hours, age over 17; and DRG 576, Septicemia without mechanical ventilation, 96+ hours, age over 17.

Definition of Principal Diagnosis

The principal diagnosis is that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

Two or more diagnoses may equally meet the definition for principal diagnosis as determined by the circumstances of admission, diagnostic work-up and/or therapy provided. Be aware that there is a difference between admitting a patient to treat two conditions and two conditions being present at the time of admission. The principal diagnosis is always the reason for admission.

Coding Guidelines

Bacteremia/septicemia

Bacteremia, assigned code 790.7, is the presence of bacteria in the blood and is a laboratory finding. Septicemia, assigned code 038.x, is a systemic disease associated with the presence and persistence of pathogenic microorganisms or their toxins in the blood, which can include bacteria, viruses, fungi or other organisms. Effective with discharges of December 15, 2003, per Coding Clinic, fourth quarter 2003, septicemia no longer equates with sepsis. (See Coding Clinic, fourth quarter 2003, page 79, Coding Clinic, second quarter 2000, pages 3, 5 and 6, and Coding Clinic, fourth quarter 1993, pages 29 and 30.)

Biliary sepsis/percutaneous transhepatic cholangiogram

Biliary sepsis due to percutaneous transhepatic cholangiogram is assigned code 998.59, other postoperative infection, 998.5 prior to October 1, 1996, and 038.9, unspecified septicemia. (See Coding Clinic, second quarter 1995, page 7.)

Candida albicans septicemia

Septicemia due to Candida albicans is assigned code 112.5. (See Coding Clinic, second quarter 1989, page 10.)

Colostomy and enterostomy infection/septicemia

Septicemia due to an infection of a colostomy or enterostomy is assigned code 569.61, infection of colostomy and enterostomy plus 038.x, septicemia. (See Coding Clinic, fourth quarter 1998, page 44.)
**Continuous intra-arterial blood gas monitoring**

Blood gases are a significant indicator of cardiopulmonary function. This monitoring enables an uninterrupted display of arterial blood gas levels and trends for the previous 24 hours. As of October 1, 2002, code 89.60, continuous intra-arterial blood gas monitoring, is the correct code assignment. Prior to October 1, 2002, 89.65, measurement of systemic arterial blood gases, was the code assigned. (See *Coding Clinic*, fourth quarter 2002, page 112.)

**Definition of sepsis**

Sepsis is defined as SIRS due to infection. This supercedes all previously published *Coding Clinic* advice where sepsis was equated with septicemia. The inclusion term sepsis was added under code 995.91, SIRS due to infectious process without organ dysfunction.

If only the term sepsis is documented, codes 038.9 and 995.91 would be assigned in that sequence. (See *Coding Clinic*, fourth quarter 2003, page 79.)

**Definition of urosepsis**

A diagnosis of urosepsis needs to be clarified with the physician to determine if it is a generalized sepsis (septicemia), 038.9, caused by leakage of urine or toxic urine by-products into the general vascular circulation; or urine contaminated by bacteria, bacterial by-products or other toxic material but without other findings, 599.0. Urosepsis is a nonspecific term. If the documentation states urosepsis, assign code 599.0 plus the code for the causal organism, if known. (See *Coding Clinic*, fourth quarter 2003, page 80, *Coding Clinic*, second quarter 2000, page 6; *Coding Clinic*, first quarter 1998, page 5; and *Coding Clinic*, first quarter 1988, pages 1 and 3.)

If a Medical Executive Committee defines “urosepsis” as “sepsis” (documented or presumed) secondary to a urinary tract infection, can coders code “sepsis” whenever a physician writes “urosepsis?” Facility guidelines must not conflict with the *Official ICD-9-CM Guidelines for Coding And Reporting* or replace physician documentation needed to support code assignment. (See *Coding Clinic*, second quarter 2004, page 13.)

**Drotrecogin alfa (activated) infusion**

Drotrecogin alfa (activated) is a new biological agent used to treat severe sepsis. It is believed to bring blood clotting and inflammation back into balance and restore blood flow to the organs. Code 00.11, infusion of drotrecogin alfa (activated), was effective after October 1, 2002.

**Endo-toxic shock/gram negative shock**

Endo-toxic shock and gram-negative shock are synonymous with septic shock. (See *Coding Clinic*, fourth quarter 2003, pages 80 and 81.)

**Gastrostomy infection/septicemia**

Septicemia due to an infection of a gastrostomy is assigned code 536.41 plus 038.x. (See *Coding Clinic*, fourth quarter 1998, pages 42 and 43.)

**Indwelling urinary catheter/septicemia**

Septicemia due to an indwelling urinary catheter is assigned code 996.64, infection and inflammatory reaction due to internal prosthetic device, implant and graft, and is sequenced as the principal diagnosis. A secondary diagnosis code from category 038 and a code for the organism responsible must be assigned, if not indicated by the septicemia code, and sequenced as a secondary diagnosis. (See *Coding Clinic*, third quarter 1993, page 6.)

**Nadir sepsis**

Nadir sepsis is assigned code 038.9, unspecified septicemia, followed by code 288.0, neutropenia. (See *Coding Clinic*, third quarter 1996, page 6.)
Negative blood cultures/septicemia
Negative or inconclusive blood cultures do not preclude a diagnosis of septicemia in patients with clinical evidence of the condition. (See Coding Clinic, second quarter 2002, page 39, Coding Clinic, second quarter 2000, page 5, and Coding Clinic, first quarter 1988, pages 2 and 3.) The clinical evidence for reviewing septicemia with negative or inconclusive blood cultures is delineated in Coding Clinic, third quarter 1988, page 12.

Neutropenic sepsis
Neutropenic sepsis is assigned code 038.9, unspecified septicemia, followed by neutropenia, 288.0. (See Coding Clinic, second quarter 1996, page 6.)

Noncandidal yeast urinary tract infection (UTI)
A noncandidal yeast UTI is assigned code 599.0 with 117.9 sequenced as a secondary code. (See Coding Clinic, second quarter 1995, page 7.)

Oxazolidinone class of antibiotics
Oxazolidinone is a new class of antibiotics used to treat gram-positive bacteria, including resistant gram-positive pathogens. They are reserved for the most medically significant resistant pathogens. They are most commonly used for resistant gram-positive infections in conditions such as sepsis, hospital-acquired pneumonia, ventilator-associated pneumonia and post-surgical wounds, traumatic wounds and cellulitis. A new code, 00.14, injection or infusion of oxazolidinone class of antibiotics, was created, effective October 1, 2002. (See Coding Clinic, fourth quarter 2002, page 95.)

Pneumococcal pneumonia and pneumococcal septicemia
Only one code, 481 (pneumococcal pneumonia), was assigned to pneumococcal pneumonia and pneumococcal septicemia until October 1, 1991. As of October 1, 1991, two codes are necessary, pneumococcal pneumonia, 481, and pneumococcal septicemia, 038.2. (See Coding Clinic, first quarter 1992, pages 17 and 18, and Coding Clinic, first quarter 1991, page 13.)

Pseudomonas urinary tract infection (UTI)/septicemia
Septicemia due to Pseudomonas UTI is assigned code 038.43, pseudomonas septicemia, followed by UTI, 599.0. Code 041.7, a code for Pseudomonas infection, does not have to be assigned as it is identified via the code for septicemia. (See Coding Clinic, fourth quarter 1988, page 10.)

Refractory septic shock
Refractory septic shock is septic shock lasting for more than one hour, which does not respond to fluid administration or pharmacological intervention. (See Coding Clinic, second quarter 2000, pages 3 and 4.)

Sepsis, severe sepsis or SIRS/Underlying infection other that septicemia
If the term sepsis, severe sepsis or SIRS is used with an underlying infection other than septicemia, such as pneumonia, cellulitis or a nonspecified urinary tract infection, code 038.9 should be assigned first, then code 995.91, followed by the code for the initial infection. Systemic infection is sequenced before the localized infection. (See Coding Clinic, fourth quarter 2003, page 80.)

If the patient is admitted for acute influenza and altered mental status and later in the admission develops a clinical picture of septic shock, pneumonia and hypotension followed by an acute myocardial infarction (AMI), and acute renal failure (ARF); the reason for admission is influenza, with pneumonia, 487.0. Secondary diagnoses would include 038.9, unspecified septicemia, 995.92, systemic inflammatory response syndrome due to infectious process with organ dysfunction, 785.52, septic shock, 548.9, ARF and 410.91, AMI. (See Coding Clinic, first quarter 2006, page 18 and Coding Clinic, second quarter 2005, pages 18 and 19.)
**Sepsis syndrome**

Sepsis syndrome comprises septicemia with evidence of inadequate organ perfusion with at least some degree of one or more of the following: hypoxemia, elevated lactate, oliguria, altered mentation, disseminated intravascular coagulopathy (DIC), decreased platelets, increased INR and/or increased fibrin split products (FSP). (See Coding Clinic, second quarter 2000, page 4.)

**Septic shock**

Effective October 1, 2003, septic shock is no longer assigned code 785.59, shock without mention of trauma, other. It has a new code, 785.52—septic shock. This code includes instructions to code first systemic inflammatory process with organ dysfunction, 995.92. (See Coding Clinic, fourth quarter 2003, page 73.) Subcategory 995.9 includes instructions to code first the underlying systemic infection.

Septic shock is defined as sepsis with hypotension, a failure of the cardiovascular system. Therefore, septic shock meets the definition for severe sepsis. When septic shock is documented, code first the initiating systemic infection or trauma, then either 995.92, systemic inflammatory response syndrome due to infectious process with organ dysfunction, or 995.94, systemic inflammatory response syndrome due to noninfectious process with organ dysfunction. In addition, assign code 785.52, septic shock. (Coding Clinic, fourth quarter 2003, page 80.)

Do not assign a code for septic shock based on the documentation of sepsis with hypotension. The physician must document a diagnosis of septic shock before it can be assigned a code. (See Coding Clinic, third quarter 2005, page 23.)

When sepsis develops after admission, the sepsis codes may be assigned as secondary diagnoses. Septic shock is a form of organ dysfunction associated with severe sepsis. Septic shock cannot occur in the absence of severe sepsis.

The code for septic shock cannot be sequenced as the principal diagnosis. (See Coding Clinic, second quarter 2005, page 19.)

Endo-toxic shock and gram-negative shock are synonymous with septic shock. (See Coding Clinic, fourth quarter 2003, pages 80 and 81.)

**Septic shock/respiratory failure/ pneumonia**

An 85-year-old female presented to the ER with increasing shortness of breath, productive cough and progressive weakness. The patient was admitted to ICU, intubated, mechanically ventilated and started on broad-spectrum antibiotics for septic shock, respiratory failure and Haemophilus influenza pneumonia. The patient then suffered an acute nontransmural myocardial infarction. The principal diagnosis is unspecified septicemia, 038.9. Secondary diagnoses are pneumonia due to Haemophilus influenza, 482.2, SIRS due to infectious process with organ dysfunction, 995.92, septic shock, 785.52, acute respiratory failure, 518.81, AMI, subendocardial infarction, initial episode of care, 410.71. Septic shock meets the definition of severe sepsis. (See Coding Clinic, second quarter 2005, pages 19 and 20.)

**Septic shock/septicemia**

Septicemia is sequenced first and shock sequenced second. (See Coding Clinic, second quarter 2002, page 39, Coding Clinic, second quarter 2000, pages 3 and 4, and Coding Clinic, first quarter 1988, pages 2 and 3.)

Escherichia coli (E. coli) septicemia and septic shock are assigned code 038.42, septicemia due to other gram-negative organisms. E. coli septicemia is sequenced as the principal diagnosis followed by 995.92, systemic inflammatory response syndrome due to infectious process with organ dysfunction, and 785.52, septic shock. (Coding Clinic, fourth quarter 2003, page 73.)
If septic shock is documented, first assign a code for the initiating systemic infection or trauma, then assign code 995.92 or 995.94 and 785.52, septic shock. (See Coding Clinic, fourth quarter 2003, page 114.)

**Septic shock/septicemia/pregnancy**

Septic shock and sepsis associated with abortion, ectopic pregnancy and molar pregnancy are classified to category codes in Chapter 11 (630-639). (See Coding Clinic, second quarter 2002, page 39.)

**Severe sepsis**

“Severe sepsis” is SIRS due to an infection that advances to organ dysfunction and is not just a case of very bad sepsis. (See Coding Clinic, fourth quarter 2002, pages 71 and 72.)

For patients with severe sepsis, the code for systemic infection, 038.x, or trauma should be sequenced first, followed by either 995.92, systemic inflammatory response syndrome due to infectious process with organ dysfunction, or 995.94, systemic inflammatory response syndrome due to noninfectious process with organ dysfunction. Also code any specific organ dysfunction. (See Coding Clinic, fourth quarter 2003, page 80.)

**Staphylococcal septicemia**

Prior to October 1, 1997, two codes were needed for staphylococcal septicemia; one for septicemia and one for the organism. As of October 1, 1997, a fifth digit was added to code 038.1 to specify the type of Staphylococcal septicemia, so now only one code is required. (See Coding Clinic, fourth quarter 1997, page 32.)

**Streptococcus pneumoniae septicemia**

Streptococcus pneumoniae septicemia is assigned code 038.2, Pneumococcal septicemia. (See Coding Clinic, second quarter 1996, page 5.)

**Streptococcal sepsis**

Streptococcal sepsis is assigned code 038.0, Streptococcal septicemia and sequenced as the primary diagnosis. Code 995.91, SIRS due to infectious process without organ dysfunction, is sequenced as a secondary diagnosis. (See Coding Clinic, fourth quarter 2003, pages 80 and 113.)

**Streptococcal septicemia**

Streptococcal septicemia is assigned one code, 038.0, Streptococcal septicemia. The physician should be queried to determine whether the patient has sepsis, an infection with SIRS. (See Coding Clinic, fourth quarter 2003, pages 80 and 113.)

**Subcategory 995.9 (SIRS)**

Subcategory 995.9 has a code first note instructing the coder to sequence the underlying cause of SIRS (infection or trauma) first. In the absence of a specified underlying condition, the default first code is 038.9.

Either the term sepsis or SIRS must be documented to assign a code from subcategory 995.9. (See Coding Clinic, fourth quarter 2003, pages 79 and 80.)

**Systemic inflammatory response syndrome (SIRS)**

Per Coding Clinic, “SIRS is a clinical response to an insult, infection or trauma, that includes systemic inflammation, elevated or reduced temperature, rapid heart rate, increased respiratory rate and elevated white blood count.”

SIRS codes, 995.9x, are usually secondary diagnoses, although they can be sequenced as the principal diagnosis. Use additional codes for all involved organ dysfunctions.
**Systemic inflammatory response syndrome (SIRS)/septicemia**

SIRS describes the endothelial inflammation believed to be associated with sepsis and septic shock. SIRS can be diagnosed when patients demonstrate two or more signs of systemic inflammation in the setting of a disorder known to cause endothelial inflammation and in the absence of any other known cause.

SIRS is the systemic response to infection or trauma, with symptoms to include fever, tachycardia, tachypnea and leukocytosis.

If the underlying cause of SIRS is known, assign a code for the cause. For example, if the underlying cause is septicemia, assign 038.9. Diagnosis code 038.9 is the default code assigned first when the underlying systemic condition is not specified. (See *Coding Clinic*, fourth quarter 2003, page 79, *Coding Clinic*, second quarter 2000, page 4, and *Coding Clinic*, third quarter 1999, pages 5 and 6.)

**Tracheostomy site/septicemia**

Septicemia from an infected tracheostomy site due to Staphylococcus aureus is assigned code 519.11, infection of tracheostomy and 038.11, Staphylococcus aureus septicemia. (See *Coding Clinic*, fourth quarter 1998, page 42.)

**Vascular access device/sepsis**

Sepsis due to a vascular access device is assigned code 996.62, infection and inflammatory reaction due to other vascular catheter followed by the appropriate sepsis code from category 038 and a code from subcategory 995.9, systemic inflammatory response syndrome (SIRS). If organ dysfunction is present, codes should be added to identify the specific type of organ dysfunction. (See *Coding Clinic*, second quarter 2004, page 16.)

**Vascular access device/septicemia**

A diagnosis of septicemia due to a vascular access device requires two codes. The principal diagnosis is 996.62, infection and inflammatory reaction due to other vascular device, and a code from category 038, septicemia is sequenced as a secondary diagnosis. Subcategory 995.9, systemic inflammatory response syndrome (SIRS), would not be assigned. (See *Coding Clinic*, second quarter 2004, page 16 and *Coding Clinic*, second quarter 1994, page 13.)

**Procedures**

**Infusion of vasopressor agent**

Vasopressors are used in the treatment of shock. Prior to October 1, 2004, code 99.29, injection or infusion of other therapeutic or prophylactic substance, was assigned. As of October 1, 2004, code 00.17, infusion of vasopressor agent, was created. Vasopressors act primarily by causing the arteries of the body to constrict, thereby raising blood pressure. They are administered via temporary, continuous intravenous infusion. Some examples are Dobutamine, Dopamine, Epinephrine and Methoxamine. (See *Coding Clinic*, fourth quarter 2004, pages 108 and 109.)