

## DRG 087 — Pulmonary Edema And Respiratory Failure

### ICD-9-CM Coding Guidelines

The below listed pulmonary edema and respiratory failure 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.

#### 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.

#### Documentation to Support a Diagnosis of Respiratory Failure or Pulmonary Edema

When reviewing a record with the diagnosis of respiratory failure, determine the underlying cause and follow the appropriate coding guidelines. Effective for discharges after April 20, 2005, there are no separate respiratory failure guidelines for respiratory and nonrespiratory causes. It is important to know the sequencing guidelines for respiratory failure, as well as the chapter-specific coding guidelines (obstetrics, poisoning, HIV, newborn) that provide sequencing direction.

When reviewing a record with the diagnosis of pulmonary edema, 514, review for documentation specifying acute versus chronic. Physician query may be necessary if the documentation does not provide specificity.

When reviewing a record with the principal diagnosis of acute pulmonary edema, 518.4, also review for documentation of heart disease or failure due to an external agent, or if it was of noncardiac origin. Follow the appropriate coding conventions and guidelines.

#### Coding Guidelines

##### ***Acute pulmonary edema/heart disease***

Acute pulmonary edema with mention of heart disease or failure is assigned code 428.1, per ICD-9-CM, volume 2, Tabular List (see excludes note under code 518.4).

##### ***Adult respiratory distress syndrome (ARDS)***

Acute pulmonary edema associated with ARDS is noncardiogenic.

ARDS due to conditions not classifiable to code 518.5 is assigned code 518.82, other pulmonary insufficiency, not elsewhere classifiable.

ARDS following shock, surgery or trauma is assigned code 518.5, pulmonary insufficiency following trauma and surgery. (See *Coding Clinic*, third quarter 1988, pages 7-9.)

### **Arterial blood gases/respiratory failure**

A diagnosis of respiratory failure is not based solely on arterial blood gas determinations.

Though respiratory failure is generally said to have occurred when the arterial PaO<sub>2</sub> is less than 60 mm Hg and/or the arterial PaCO<sub>2</sub> is above 50 mm Hg, the degree of change from a patient's usual status must be taken into consideration with patients who have chronic conditions such as chronic obstructive pulmonary disease. (See *Coding Clinic*, second quarter 1990, pages 20 and 21, and *Coding Clinic*, third quarter 1988, page 7.)

### **Asthma in status asthmaticus/respiratory failure**

A patient with asthma in status asthmaticus is admitted to the hospital for treatment of acute respiratory failure. The principal diagnosis is acute respiratory failure, 518.81, and the secondary diagnosis is asthma, unspecified, with status asthmaticus, 493.91. (See *Coding Clinic*, first quarter 2005, page 5.)

### **Code 518.81, respiratory failure, October 1, 1998 revision**

As of October 1, 1998, the codes for respiratory failure were revised. Code 518.81 includes acute respiratory failure and respiratory failure, not otherwise specified, code 518.83 is chronic respiratory failure and code 518.84 is acute and chronic respiratory failure. (See *Coding Clinic*, fourth quarter 1998, page 41.)

### **Chronic myasthenia gravis with acute exacerbation/respiratory failure**

A patient with myasthenia gravis with acute exacerbation is admitted to the hospital due to acute respiratory failure. Acute respiratory failure, 518.81, is sequenced as the primary diagnosis. Myasthenia gravis with acute exacerbation, 358.01, is sequenced as the secondary diagnosis.

Acute respiratory failure may be designated as the principal diagnosis if it was the reason for admission, or it may be listed as an associated condition if it occurs after admission. This applies to respiratory failure resulting from either a respiratory or nonrespiratory condition unless the Index or Tabular List instructs otherwise. (See *Coding Clinic*, first quarter 2005, page 4, and *Coding Clinic*, fourth quarter 2004, page 139.)

### **Congestive heart failure/respiratory failure**

When a patient was admitted with respiratory failure associated with CHF, CHF was sequenced as the principal diagnosis until discharges of April 20, 2005, when the guidelines for respiratory failure were revised.

A patient with congestive heart failure (CHF) is admitted to the hospital for acute respiratory failure. The principal diagnosis is acute respiratory failure, 518.81, and the secondary diagnosis is CHF, 428.0. The principal diagnosis depends on the reason for admission. Query the physician if the documentation is unclear. (See *Coding Clinic*, first quarter 2005, page 5, and *Coding Clinic*, second quarter 1991, pages 3 and 4.)

### **Emphysema/respiratory failure**

A patient with emphysema is admitted to the hospital for acute respiratory failure. The principal diagnosis is acute respiratory failure, 518.81. (See *Coding Clinic*, first quarter 2005, page 4.)

### **Hypostatic pneumonia**

Hypostatic pneumonia is assigned code 514, pulmonary congestion and hypostasis. In order to code this as bacterial pneumonia, the physician must document that it is a bacterial pneumonia. (See *Coding Clinic*, second quarter 1998, pages 6 and 7.)

**Impending respiratory failure**

Impending respiratory failure is not assigned a code. A threat of respiratory failure may exist, but respiratory failure would not be coded unless it occurred. (See *Coding Clinic*, second quarter 2002, page 6.)

**Intubation/mechanical ventilation/respiratory failure**

Absence of intubation and mechanical ventilation does not preclude the diagnosis of respiratory failure, 518.8x. (See *Coding Clinic*, third quarter 1988, page 7.)

**Noncardiac acute pulmonary edema**

There are many diverse causes of noncardiac, acute pulmonary edema. For example:

- Postoperative pulmonary edema due to fluid overload, 518.4 and 276.6
  - Postoperative pulmonary edema with adult respiratory distress syndrome, 518.5
  - Neurogenic acute pulmonary edema in patients with central nervous system disorders, 518.4, unless there is mention of left ventricular failure, 428.1
  - Acute pulmonary edema due to smoke inhalation from a fire, 506.1 plus the appropriate E-code
- (See *Coding Clinic*, third quarter 1988, pages 3 and 4.)

**Overdosing on crack/respiratory failure**

A patient is found to be in respiratory failure after overdosing on crack and is placed on a ventilator. This is considered a poisoning. The principal diagnosis was assigned code 968.5, poisoning by other central nervous system depressants and anesthetics, surface (topical) and infiltration anesthetics until October 1, 2002, when code 970.8, poisoning by other specified central nervous system stimulant was created, plus 305.60, nondependent abuse of drugs, cocaine abuse, unspecified and 518.81, respiratory failure. (See *Coding Clinic*, first quarter 1993, page 25.)

A patient who overdosed on crack was admitted to the hospital with acute respiratory failure. The principal diagnosis is 970.8, poisoning by other specified central nervous system stimulant. The secondary diagnoses are 518.81, acute respiratory failure, and 305.60, nondependent abuse of drugs, cocaine abuse, unspecified. Poisoning is sequenced first because there is a chapter-specific guideline (Section 1 C, 17,e, 2,d) that provides sequencing directions specifying that poisoning code is sequenced first, followed by a code for the manifestation. (See *Coding Clinic*, first quarter 2005, pages 6 and 7.)

**Postpartum pulmonary embolism/respiratory failure**

A postpartum patient is admitted to the hospital for a pulmonary embolism that resulted in respiratory failure. The principal diagnosis is pulmonary embolism, 673.24, obstetrical blood-clot embolism, postpartum condition or complication. Acute respiratory failure, 518.81, is sequenced as a secondary diagnosis. A chapter-specific guideline (Section 1, C, 11, a, 1) provides sequencing directions specifying that chapter 11 codes have sequencing priority over codes from other chapters. (See *Coding Clinic*, first quarter 2005, page 6.)

**Respirator dependence**

Effective October 1, 2004, code V46.1, other dependence on machines, respirator, was expanded to distinguish between respirator dependence status, V46.11, and encounters for respirator dependence during power failure, V46.12. Code V46.11 is used only if there are no complications or malfunctions of the respirator equipment, and it is always a secondary code. By contrast, code V46.12 is only acceptable as a principal or first-listed code. (See *Coding Clinic*, fourth quarter 2004, pages 100 and 101.)

### **Respiratory failure due to poisoning**

Assign the appropriate poisoning code for the substance(s) involved and sequence as the principal diagnosis. Assign respiratory failure as an additional diagnosis. (See *Coding Clinic*, first quarter 2005, page 68; *Coding Clinic*, third quarter 1991, page 14; and *Coding Clinic*, second quarter 1990, page 11.)

### **Respiratory failure of newborn**

Respiratory failure in a newborn is assigned code 770.84 (New code October 1, 2002). (See *Coding Clinic*, fourth quarter 2002, page 65.)

### **Respiratory failure/Pneumocystis carinii/AIDS**

Respiratory failure due to *Pneumocystis carinii*, which is due to AIDS is assigned code 042, Human Immunodeficiency Virus, and sequenced as the principal diagnosis. Acute respiratory failure, 518.81, with pneumocystosis, 136.3, are sequenced as secondary diagnoses. Chapter-specific guidelines such as the HIV coding guidelines take precedence over general coding guidelines. (See *Coding Clinic*, first quarter 2005, page 7, and *Coding Clinic*, first quarter 2003, page 15.)

### **Respiratory failure/pneumonia**

As of April 20, 2005, when a patient is admitted with respiratory failure and another acute condition, the principal diagnosis depends on the circumstances of the admission. The guideline regarding two or more diagnoses that equally meet the definition for principal diagnosis may be applied. (See *Coding Clinic*, first quarter 2005, pages 3-8.)

Until April 20, 2005, if the reason for admission was respiratory failure and pneumonia, respiratory failure was sequenced as the principal diagnosis. These conditions are **not** co-equal. When respiratory failure is documented as being secondary to or associated with a respiratory condition, respiratory failure should be sequenced as the principal diagnosis. The guideline regarding two or more interrelated conditions meeting the definition of principal diagnosis did not apply to respiratory failure and pneumonia since this condition had been specifically addressed in separate *Coding Clinic* instructions. (See *Coding Clinic*, second quarter 2003, pages 21 and 22.)

If the medical record indicates the reason for admission is acute respiratory failure for a patient with acute respiratory failure and pneumonia, the principal diagnosis is acute respiratory failure. (See *Coding Clinic*, November-December 1987, pages 5 and 6.)

### **Respiratory failure/sepsis**

If a patient is admitted to the hospital with severe *Staphylococcus aureus* sepsis and acute respiratory failure, the principal diagnosis is 038.11, *Staphylococcus aureus* septicemia, followed by 995.92, SIRS due to infectious process with organ dysfunction and 518.81, acute respiratory failure. Subcategory 995.9 instructs coders to first determine the underlying systemic infection. Acute respiratory failure is included as a specified organ dysfunction under code 995.92. (See *Coding Clinic*, first quarter 2005, pages 7 and 8.)

### **Sequencing of respiratory failure (effective with discharges April 20, 2005)**

Effective with discharges April 20, 2005, respiratory failure coding principles were revised. Some coding principles regarding the sequencing of respiratory failure were retained and some now contain revised information. Guidelines #1 and #2 published in *Coding Clinic*, second quarter 1991, page 3, have been superseded by information in *Coding Clinic*, first quarter 2005, pages 3-8.

Code 518.81, acute respiratory failure, may be assigned as the principal diagnosis when it is the condition established after study to be chiefly responsible for occasioning the admission to the hospital, and the selection is supported by the alphabetical index and tabular list.

Chapter-specific coding guidelines for obstetrics, poisoning, HIV and newborns that provide sequencing direction take precedence.

Respiratory failure occurring after admission may be included as a secondary diagnosis.

When a patient is admitted with respiratory failure and another acute condition (MI, CVA), the principal diagnosis depends on the circumstances of the admission. The guideline regarding two or more diagnoses that equally meet the definition for principal diagnosis may be applied.

The guidelines no longer differentiate between those for respiratory failure in association with or due to respiratory conditions and those in association with or due to nonrespiratory conditions. (See *Coding Clinic*, first quarter 2005, page 3.)

### **Sequencing of respiratory failure in association with or due to a nonrespiratory condition**

For discharges prior to April 20, 2005, if a nonrespiratory condition is chronic, respiratory failure is sequenced as the principal diagnosis. An example of this would be an admission for respiratory failure due to progressive myasthenia gravis. The patient received treatment for both. Respiratory failure would have been sequenced as the principal diagnosis. For discharges after April 20, 2005, see *Coding Clinic*, first quarter 2005, page 3. (See *Coding Clinic*, second quarter 1991, page 3.)

For discharges prior to April 20, 2005, if a nonrespiratory condition is chronic but acutely exacerbated, that condition is sequenced as the principal diagnosis. An example would be respiratory failure due to decompensated congestive heart failure (CHF). CHF would have been sequenced as the principal diagnosis. For discharges after April 20, 2005, see *Coding Clinic*, first quarter 2005, page 3. (See *Coding Clinic*, second quarter 1991, pages 3 and 4.)

If a nonrespiratory condition is acute, the acute nonrespiratory condition is sequenced as the principal diagnosis. A patient who was admitted with signs and symptoms of an acute myocardial infarction (AMI) was intubated. The final diagnosis was determined to be acute respiratory failure associated with an AMI. The principal diagnosis is AMI. For discharges after April 20, 2005, the selection of principal diagnosis will depend on the circumstances of the admission. (See *Coding Clinic*, first quarter 2005, page 3, and *Coding Clinic*, second quarter 1991, pages 4 and 5.)

### **Sequencing of respiratory failure in association with respiratory conditions.**

Respiratory failure sequencing depends on the reason for admission. When respiratory failure due to an underlying respiratory condition is the reason for admission, respiratory failure is sequenced as the principal diagnosis. When respiratory failure develops after admission, it is a secondary diagnosis. When a patient is admitted due to respiratory failure and pneumonia, respiratory failure is sequenced first. These conditions are **not** co-equal. The guidelines regarding two or more interrelated conditions meeting the definition of principal diagnosis do not apply since this has been specifically addressed in separate *Coding Clinic* instructions. (See *Coding Clinic*, first quarter 2005, pages 3-8, and *Coding Clinic*, second quarter 2003, pages 21 and 22; *Coding Clinic*, second quarter 2000, page 21; *Coding Clinic*, second quarter 1991, pages 3-5; and *Coding Clinic*, November-December 1987, pages 5 and 6.)

### **Ingestion of alcohol, Elavil and Xanax/respiratory failure**

A patient took alcohol, Elavil and Xanax, was admitted to the hospital in respiratory failure and placed on a ventilator. This is considered a poisoning. The principal diagnosis is any one of the poisoning codes; poisoning by psychotropic agents, antidepressants (Elavil), 969.0, poisoning by psychotropic agents, Benzodiazepine-based tranquilizers (Xanax), 969.4 or toxic effect of alcohol, ethyl alcohol, 980.0. Respiratory failure is sequenced as a secondary diagnosis. Assign appropriate E-codes. (See *Coding Clinic*, third quarter 1991, page 14.)

## **Long Term Care Hospitals**

### **Admission for respiratory failure and weaning off mechanical ventilation**

A patient was admitted to a long term care hospital (LTCH) following acute hospitalization for treatment of drug overdose, orthopedic aftercare following hip fracture and management of chronic pain. He was admitted to the LTCH for continuing treatment of respiratory failure and weaning from mechanical ventilation. He has been a quadriplegic secondary to a MVA 20 years ago. The patient has multiple problems including chronic respiratory failure, polysubstance dependence, chronic pain, dysphagia, nonpsychotic mental disorder secondary to traumatic brain injury, tracheostomy status and gastrostomy status. The principal diagnosis is chronic respiratory failure, 518.83. (See *Coding Clinic*, fourth quarter 2003, pages 103 and 104.)

