Understanding Respiratory Diagnoses

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Coding respiratory cases can sometimes lead to coding professionals getting bogged down in the circle of sequencing instructions, inclusions, and exclusions. This article will help readers gain a better understanding of the differences in the diagnoses that all come with a majority of the same symptoms: cough, shortness of breath, difficulty breathing, and sometimes chest pain.

Breathe In, Breathe Out

Breathing can become difficult for many reasons. Pulled muscles or bruised ribs can make it difficult to breathe. Increased fluid in the pleural can also make it difficult to breathe. However, when thinking about how an individual can have difficulty breathing in relation to the lungs themselves, none of the aforementioned explanations relate. One must look into the lungs themselves.

When people inhale, they take air in through the nose or mouth and that air enters the lungs, not by means of the lungs themselves, but by the means of contracting muscles around the lungs. The lungs themselves are just a large mass of tissue. Inhalation occurs when the diaphragm and the muscles around the rib cage contract. This allows air to be pulled into the lungs. This is the same concept as taking a child's squeaky toy, squeezing the air out of it, putting it under water and letting it fill with water. The toy is not causing water to go in, just like the lungs do not cause air to go in. It's the external force of the muscles that cause the lungs to expand and contract, thus allowing the lungs to inhale and exhale. As the muscles relax, they push on the lungs, causing exhalation.

As the outside air enters the nose or mouth, it is moistened, warmed, and filtered before blowing past the larynx and trachea, and entering into the bronchial tubes in each lung. The oxygen-rich air breathed in flows all the way down into the alveoli, which are the little sacs at the end of the bronchial tubes where gas exchange occurs. The capillaries that line the alveolar sacs trade oxygen and carbon dioxide with the alveoli so oxygen can be used by the body and the carbon dioxide can be exhaled. The next section of this article discusses what happens when infection or disease attacks these body parts.

Respiratory Infections

Respiratory infections can affect either the upper respiratory tract or the lower respiratory tract. The upper respiratory tract is anything from the trachea up, such as the sinuses, pharynx, and larynx. Even the tonsils, which are lymphatic tissue, are included in the upper respiratory tract since they are found in the throat. Beginning with the bronchus, the lower respiratory tract also includes the bronchioles and the alveoli, which are the branches and air sacs that reside within the lungs themselves.

The bronchial tubes are covered in a thin layer of mucus. When bronchitis occurs, the bronchial tubes become irritated and there is an increase in mucus production, triggering a cough, usually productive. Acute bronchitis is normally caused by infections or some type of irritant, but can also be caused by bacteria. Chronic bronchitis occurs when the irritation of the bronchial tubes is constant. When a virus or bacteria is then introduced to the chronically inflamed bronchial tubes, an acute bronchitis is now superimposed on the chronic bronchitis.

If an infection or virus manages to work its way all the way down into the alveoli, the patient will now have a diagnosis of pneumonia. In pneumonia, the alveoli fill up with pus or fluid, which makes it difficult for gas exchange to occur. When the infection or virus has made it to the alveoli in one or more lobes of the lung, it is also known as lobar pneumonia. If the infection or virus actually invades both the alveoli and the bronchi, then it is considered bronchopneumonia.

The influenza virus is not necessarily a lower respiratory infection, but can lead to both bronchitis and pneumonia, as well as other complications. The influenza virus usually enters through the nose or mouth and is easily transmittable. The symptoms are usually relegated to the upper respiratory tract and are accompanied by fever and body aches. When coding for a patient that has influenza complicated by pneumonia, the combination code will be found in category J09-J18. If influenza is complicated by bronchitis, the combination code is a bit more generic and is in category J09-J10.

As with any infection, sepsis can develop with a respiratory tract infection, including the influenza virus. Though sepsis is classified as a bacterial infection, the American Hospital Association's *Coding Clinic* addresses this topic in its third quarter 2016 issue. Coding professionals are instructed to code A41.89 Sepsis, specified organism NEC, along with the appropriate influenza code.[1]

Respiratory Diseases and Conditions

According to the World Health Organization, "Chronic Obstructive Pulmonary Disease (COPD) is not one single disease but an umbrella term used to describe chronic lung diseases that cause limitations in lung airflow. The more familiar terms 'chronic bronchitis' and 'emphysema' are no longer used, but are now included within the COPD diagnosis."[2] Because chronic bronchitis is included in the COPD classification, there is still the ability to have acute bronchitis superimposed on COPD.

The ICD-10-CM classification provides code J44.0, Chronic obstructive pulmonary disease with acute lower respiratory infection, to capture the COPD from the chronic bronchitis and instructs the coding professional to code the identified lower respiratory infection; in this case, the acute bronchitis. However, if a provider does not indicate that the patient has COPD and only identifies the chronic bronchitis with acute bronchitis, J42 is an available code for just chronic bronchitis.

As discussed earlier, chronic bronchitis causes an increase in mucus production in the bronchus and bronchioles. As mucus will slide into the alveolar sacs, the thickened sacs have a difficult time exchanging oxygen and carbon dioxide with the capillaries. In emphysema, however, the alveolar sacs become thin. When the alveolar sacs are healthy, they look like a bunch of grapes. When they are affected by emphysema, the entire bundle of alveolar sacs begins to look like a single raspberry. The sacs thin and begin to merge into one large sac. If not specified as due to smoking or some other inhaled substance, emphysema would code to J43.9. Of course, if documented as due to an inhaled substance, the code would then be a poisoning code from the Table of Drugs and Chemicals.

While chronic bronchitis and emphysema are most often contracted by prolonged exposure to smoke, gases, or other chemicals, asthma is a condition that most often occurs because of a combination of genetics along with environmental exposure. Asthma cannot be cured, but can be treated. When an asthmatic has an asthma "attack," the airways swell and mucus production increases, making it difficult to breathe. If these attacks come on one after another, the patient has gone into what is considered status asthmaticus, which can be life-threatening.

Documentation Review is Important

Although the symptoms of most respiratory conditions are similar, it is helpful for the coding professional to understand the differences. When coding for a patient identified with multiple respiratory conditions, careful review of the documentation is important. Review of the coding instructions at every level is critical in assigning and sequencing these diagnoses. Instructions can be found at the code level, the category level, and at the chapter level.

Notes

[1] American Hospital Association. *AHA Coding Clinic for ICD-10-CM and ICD-10-PCS.* (Third Quarter 2016): 10-12.

[2] World Health Organization. "Chronic respiratory diseases: Chronic obstructive pulmonary disease (COPD)."

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