



Understanding Asthma Clinically AND FROM AN ICD-10 PERSPECTIVE

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This article looks at the clinical condition of asthma, and provides insight into documentation for ICD-10-CM coding of asthma. Both the coding professional and the clinical documentation improvement (CDI) professional should be aware of the clinical aspects of a particular disease or condition and the coding guidelines.

Asthma is a restrictive respiratory disease that is caused by narrowing and swelling of the airways with production of extra mucus. The patient is likely to report subjective symptoms of difficulty breathing, coughing, wheezing, and shortness of breath. Asthma can't be cured, but its symptoms can be controlled.

Although the actual cause of asthma is unclear, risk factors that may lead to asthma include: having another allergic condition, obesity, use of tobacco (first or second hand), gestational exposure to tobacco, exposure to fumes or pollution, having a relative with asthma, occupational exposure to triggers, exposure to certain germs or parasites, and or some types of bacterial or viral infections.

Exposure to various substances can trigger an exacerbation of asthma. The following types of asthma are defined by what triggers the exacerbation:

- **Exercise-induced asthma:** Physical activity that may be worsen when the air is cold and dry.
- **Occupational asthma:** Chemical fumes, gases or dust.
- **Allergy-induced asthma:** Triggered by pet dander, cockroaches, pollen, mold, dust mites, some medications including beta-blockers, aspirin, ibuprofen, and naproxen. May also be triggered by sulfites and preservatives added to some foods and beverages.

Other clinical triggers include: gastroesophageal reflux disease (GERD), mental or physical stress, cold air and menstrual cycle in some women.

An acute exacerbation of asthma, often referred to as an "asthma attack," occurs when the muscles around the

airways contract, causing the bronchial tubes to narrow. After home treatment, if the Peak Expiratory Flow (PEF) readings range from 50-79 percent of the patient's personal best, quick acting medication prescribed by the physician may be required and may initiate an emergency room visit. When the asthma remains unresponsive to initial treatment with bronchodilators it is called Status Asthmaticus.

Documentation that may support the need to query for asthma includes these tests, labs, and medications:

- **Lung function tests:** Spirometry estimates the narrowing of the bronchial tubes or Peak flow measures difficulty blowing air out of the lungs. A bronchodilator may be introduced before or after the test to open the airways.
- **Other tests used to diagnose asthma include:** Allergy testing, imaging tests (structural abnormalities or diseases), nitric oxide test (breath test for nitric oxide), methacholine challenge (causing exacerbation of symptoms), sputum eosinophils (found in sputum due to coughing), provocative testing for exercise and cold-induced asthma.

Common medications associated with asthma include

Long-Term Asthma Control Medications

Leukotriene modifiers	montelukast [Singulair], zafirlukast [Accolate], zileuton [Syflo]
Inhaled corticosteroids	Fluticasone [Flovent HFA] Budesonide [Pulmicort Flexhaler], flunisolide [Aerobid], ciclesonide [Alvesco], beclomethasone [Qvar], mometasone [Asmanex]
Long-acting beta agonists	Salmeterol [Serevent], formoterol [Foradil, Perforomist]
Combination inhalers	Fluticasone-salmeterol [Advair Diskus], budesonide-formoterol [Symbicort], mometasone-formoterol [Dulera]
Theophylline	Theophylline [Theo-24, Elixophyllin]

Quick Relief Medications

Short-acting beta agonists	Albuterol [ProAir HFA, Ventolin HGA,], levalbuterol [Xopenex], pirbuterol [Maxair]
Ipratropium	[Atrovent]
Oral and intravenous corticosteroids	

Allergy Medications

Allergy shots	Immunotherapy
Omalizumab	[Xolair]
Allergy medications	Oral and nasal spray antihistamines and decongestants-Corticosteroid and cromolyn nasal spray

Another asthma treatment is bronchial thermoplasty, which is used for severe asthma.

Documentation in ICD-10-CM no longer requires identification of intrinsic or extrinsic, but has moved to severity. The new classification terminology that correlates with clinical practice language includes: mild, moderate, or severe, and whether the patient has intermittent or persistent asthma.

Asthma Severity

Asthma Classifications	Signs and Symptoms
Mild Intermittent	Mild symptoms up to two days a week and up to two nights a month
Mild persistent	Symptoms more than twice a week, but no more than once in a single day
Moderate persistent	Symptoms once a day and more than one night a week
Severe persistent	Symptoms throughout the day on most days and frequently at night

It remains important to identify whether the asthma is associated with an acute exacerbation, status asthmatics or is uncomplicated, which indicates the severity and in turn may increase the length of stay.

Without proper documentation that clearly defines the severity, whether the asthma is persistent or intermittent, and any complicating factors, the ICD-10-CM code for asthma is J45.909 *Unspecified asthma, uncomplicated*.

The diagnosis (condition) of Asthma is located in Chapter 10 of ICD-10-CM: Diseases of the Respiratory System (J00-J99 code category range). Asthma is found in section J45 of ICD-10-CM.

ICD-10-CM	Code Description
J45.2x	mild intermittent
J45.3x	mild persistent
J45.4x	moderate persistent
J45.5x	severe persistent
J45.90x	unspecified

ICD-10-CM classification of asthma also captures asthma that is exacerbated, with status asthmaticus and uncomplicated through the 5th characters.

J45.990	exercise induced bronchospasm
J45.991	cough variant asthma
J45.998	other asthma

Within the Respiratory System chapter of ICD-10-CM is a code instruction for capturing tobacco use. An additional code will be needed to identify:

- exposure to environmental tobacco smoke (Z77.22)
- exposure to tobacco smoke in the perinatal period (P96.81)
- history of tobacco use (Z87.891)
- occupational exposure to environmental tobacco smoke (Z57.31)

- tobacco dependence (F17.-)
- tobacco use (Z72.0)

ICD-10-CM also distinguishes between uncomplicated cases and those in exacerbation:

- Acute exacerbation is a worsening or decompensation of a chronic condition; or
- Acute exacerbation is not equivalent to an infection superimposed on a chronic condition.

Often asthma is seen in patients who also have chronic obstructive pulmonary disease (COPD) and bronchitis, so review the medical record carefully. Documentation should indicate the relationship to these conditions to properly assign the ICD-10-CM code(s).

Be sure to look at your physician query form and language for asthma. Ensure that the specific type and severity is included, so it can be captured to reflect the severity and acuity of the patient.

Coding and CDI professional alike should have clinical and coding guideline knowledge and they should collaborate for success.

References

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