Chronic obstructive pulmonary disease

Definition
Chronic obstructive pulmonary disease (COPD) is a broad term that represents a group of chronic, progressive lung diseases that obstruct the airways in the lungs, making it difficult to breathe.

Types
There are two main types of COPD:
- **Emphysema** (slowly progressive destruction of the lung tissue, which loses its elasticity and ability to expand and contract)
- **Chronic bronchitis** (long-term, chronic inflammation and cough with mucus, resulting in narrowing and blockage of the airways)

Note: Most people with COPD have a combination of both conditions.

Causes/risk factors
- Smoking (the No. 1 cause)
- Long-term exposure to environmental irritants (toxic fumes, dust, air pollution, secondhand smoke, etc.)
- History of serious childhood respiratory infections
- Gastroesophageal reflux disease (GERD), which can worsen COPD or may even cause it
- In rare cases, it is thought that genetics—specifically, a deficiency of alpha-1 antitrypsin (AAT), a protein produced in the liver—may play a role

Signs and symptoms
- Chronic cough or cough with large amounts of mucus
- Shortness of breath that is worse with exertion
- Wheezing and chest tightness
- Fatigue

Periodic worsening or “flare-ups” of symptoms are called exacerbations, which can range from mild to life-threatening.

Complications/risks
- Frequent respiratory infections
- Pulmonary hypertension (high blood pressure in the arteries of the lungs)
- Heart problems
- Lung cancer
- Depression
- Weight loss

Diagnostic tools
- Medical history and physical exam
- Pulmonary function tests
- Imaging tests (chest X-ray, CT scan)
- Arterial blood gas analysis
- Pulse oximetry (measures oxygen saturation in the blood)
- Sputum evaluation

Treatment
There is no cure for COPD, and lung damage caused by COPD is not reversible. Treatment is aimed at slowing the progression, managing the symptoms and preventing complications. Treatments include:
- Smoking cessation
- Avoidance of environmental irritants
- Medications
- Pulmonary rehabilitation
- Oxygen therapy
- Influenza and pneumonia immunization
- Regular exercise
- Balanced nutrition
- Surgery (in rare instances): removal of damaged lung tissue or lung transplant

**Bronchiectasis is not a type of COPD**
COPD and bronchiectasis are two separate chronic lung conditions that can coexist. Although there are some similarities between the two, there also are some important differences and the conditions are treated differently.
- COPD includes a range of chronic, progressive, obstructive lung diseases usually caused by smoking and other environmental factors.
- Bronchiectasis is usually caused by inflammation and infection of the small airways (bronchi), which results in thickening and scarring of the airway walls. This airway damage prevents the natural clearing of mucus; thus, mucus accumulates and creates an environment in which bacteria can grow. This leads to a recurring cycle of inflammation and infection that can cause even more damage to the airways. Over time, the damaged airways lose their ability to effectively move air in and out, resulting in lack of adequate oxygen reaching vital organs. This can lead to serious health problems, such as respiratory failure and heart failure.
Subjective
In the subjective section of the office note, document the presence or absence of any current symptoms related to chronic obstructive pulmonary disease (e.g., shortness of breath, cough, fatigue, etc.).

Objective
In the objective section, include all current associated physical exam finding (e.g., decreased breath sounds, wheezing, etc.) and related diagnostic test results.

Assessment
American Hospital Association (AHA) Coding Clinic advises COPD is a chronic, systemic condition that almost always affects patient care, treatment or management. Therefore, it is appropriate to document the COPD diagnosis in the final assessment as a current, coexisting condition, even in the absence of specific treatment of the condition on an individual date of service.

Managed by a different provider
- Even when the COPD condition is being followed and managed by a different provider, it is important to include the diagnosis in the final assessment.
- For example: “Chronic emphysematous bronchitis followed and managed by pulmonologist, Dr. Jane Smith.”

Specificity:
- Describe each final COPD-related diagnosis to the highest level of specificity. A diagnosis of “COPD” is broad and nonspecific—it does not identify the particular type of COPD or any associated conditions.
- Include the current status (stable, worsening, improved, etc.)

Abbreviations:
A good rule of thumb for any medical record is to limit—or avoid altogether—the use of abbreviations. While COPD is a commonly accepted medical abbreviation for chronic obstructive pulmonary disease, best practice is as follows:
- The initial notation of an abbreviation should be spelled out in full with the abbreviation in parentheses: “Chronic obstructive pulmonary disease (COPD).”
- Subsequent mention of the condition can be made using the abbreviation.

Suspected versus confirmed:
- Do not document a suspected COPD condition as if it is confirmed. Instead, document the signs and symptoms in the absence of a confirmed diagnosis.
- Do not describe a confirmed COPD diagnosis with terms that imply uncertainty (such as “probable,” “apparently,” “likely” or “consistent with”).

Treatment plan
- Document a clear and concise treatment plan for COPD, linking related medications to the diagnosis.
- Include orders for diagnostic testing.
- Indicate in the office note to whom or where the referral or consultation requests are made.
- Document when the patient will be seen again, even if only on an as-needed basis.

Electronic medical record (EMR) reminder
- Some electronic medical records insert ICD-10-CM code descriptions into the medical record to represent the final diagnosis. For example: “J44.9 Chronic obstructive pulmonary disease, unspecified.”
- With these types of vague descriptions, the diagnosis will not be complete unless the physician clearly documents the specific COPD condition and any associated conditions.

Note: ICD-10-CM is a statistical classification; it is not a substitute for a healthcare provider’s final diagnostic statement. It is the healthcare provider’s responsibility to provide legible, clear and concise documentation of a final diagnosis described to the highest level of specificity, which is then translated to a code for reporting purposes. It is not appropriate for healthcare providers to simply list a code number or select a code number from a list of codes in place of a written final diagnosis.
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Coding basics
COPD and its associated conditions classify to the following categories:
- J43 Emphysema
- J44 Other chronic obstructive pulmonary disease
- J45 Asthma

Multiple instructional notes appear under each of these categories. To ensure accurate and specific diagnosis code assignment, the coder must note the exact diagnosis description in the medical record; then, in accordance with ICD-10-CM official coding conventions and guidelines:
- Search the alphabetic index for that specific description.
- Verify the code in the tabular list, following all instructional notes, as applicable.

COPD
COPD classifies to category J44 with a fourth character required as follows to provide further specificity:
- J44.0 COPD with acute lower respiratory infection
  Use additional code to identify the infection
- J44.1 COPD with (acute) exacerbation
  Includes decompensated COPD and
  Decompensated COPD with (acute) exacerbation
  Excludes2 COPD with acute bronchitis (J44.Ø)
- J44.9 Chronic obstructive pulmonary disease, unspecified

COPD with coexisting asthma
Category J45 Asthma
Reminder: Category J44 for COPD advises to code also type of asthma, if applicable (J45.-)
- J45.2 Mild intermittent asthma
- J45.3 Mild persistent asthma
- J45.4 Moderate persistent asthma
- J45.5 Severe persistent asthma
- J45.9 Other and unspecified asthma

Fourth, fifth and sixth characters are required for greater specificity, including whether asthma is uncomplicated, with exacerbation or with status asthmaticus.
- COPD with unspecified asthma is included in category J44 and codes to J44.9.
- COPD with asthma further specified requires two codes: a code from category J44 for COPD plus a code from category J45 to report the type of asthma.
- COPD with exacerbation of asthma codes to J44.9 and J45.9Ø1. Unspecified asthma with (acute) exacerbation. Although code J45.9Ø1 does not represent a type of asthma, it provides additional specificity regarding the asthma being in acute exacerbation.

COPD with exacerbation and acute bronchitis
Exacerbation of COPD is a periodic worsening, flare-up or decompensation of symptoms. An acute exacerbation is not equal to an infection superimposed on COPD (although COPD exacerbation may be triggered by an infection).
- Code J44.1, COPD with exacerbation, has an Excludes2 note advising code J44.Ø (COPD with acute bronchitis) is not part of the condition represented by code J44.1.
  o This indicates it is acceptable to assign both codes when the medical record shows both conditions are present.
- The record does not have to specifically state the exacerbation is acute to assign code J44.1, as “acute” is enclosed in parentheses as a nonessential modifier – a word that may be present or absent in the statement of a disease without affecting the code to which it is assigned. “Acute” is inherent to exacerbation.

COPD with acute bronchitis (an acute infection) is coded:
- J44.0 Chronic obstructive pulmonary disease with acute lower respiratory infection
- J20.9 Acute bronchitis, unspecified

COPD with coexisting bronchiectasis
Even though COPD and bronchiectasis are different and separate lung diseases, the ICD-10-CM classification indicates that when a record documents COPD coexisting with bronchiectasis, a code from category J47 only is assigned.

In the alphabetic index, bronchiectasis does not appear under Disease, pulmonary. However, the coder is advised to see also Disease, lung. This leads the coder to Disease > lung > obstructive > with > bronchiectasis J47.9.
- Category J47, bronchiectasis, has multiple instructional notes and fourth characters to provide greater specificity.
- Category J44 Excludes1 COPD with bronchiectasis and directs the coder to category J47.
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Emphysema
Emphysema classifies to category J43 and is a more specific type of COPD. A fourth character is required to specify the particular type of emphysema. Please note:
- Emphysema documented with coexisting chronic bronchitis classifies to category J44.
- Emphysema without mention of chronic bronchitis classifies to category J43.

Other reminders
- Pneumonia is not an acute exacerbation of COPD. When these two conditions coexist, code them separately.
- Hypoxia is not inherent in COPD. When COPD is documented with hypoxia, code R09.02, hypoxemia, may be assigned as an additional diagnosis.

Coding examples

Example 1
<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>COPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM code</td>
<td>J44.9 Chronic obstructive pulmonary disease, unspecified</td>
</tr>
<tr>
<td>Comment</td>
<td>A vague and nonspecific condition description leads to a vague and nonspecific ICD-10-CM code.</td>
</tr>
</tbody>
</table>

Example 2
<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>Emphysema</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM code</td>
<td>J43.9 Emphysema, unspecified</td>
</tr>
<tr>
<td>Comment</td>
<td>Emphysema is a more specific type of COPD.</td>
</tr>
</tbody>
</table>

Example 3
<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>COPD with emphysema</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM code</td>
<td>J43.9 Emphysema, unspecified</td>
</tr>
<tr>
<td>Comment</td>
<td>Emphysema is a more specific type of COPD. Following the coding path in the ICD-10-CM manual, “Disease &gt; pulmonary &gt; chronic obstructive” does not have a sub-term entry for “with emphysema.” Therefore, the coder should follow the instruction to see also “Disease, lung.” Disease &gt; lung &gt; obstructive (chronic) &gt; with &gt; emphysema &gt; J43.9.</td>
</tr>
</tbody>
</table>

Example 4
<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>COPD with emphysema and chronic bronchitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM code</td>
<td>J44.9 Chronic obstructive pulmonary disease, unspecified</td>
</tr>
<tr>
<td>Comment</td>
<td>Code J43.9, Emphysema, unspecified. Excludes1 emphysema with chronic (obstructive) bronchitis and redirects the coder to category J44. Category J44, Other chronic obstructive pulmonary disease, includes chronic bronchitis with emphysema.</td>
</tr>
</tbody>
</table>

Example 5
<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>COPD and asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD-10-CM code</td>
<td>J44.9 Chronic obstructive pulmonary disease, unspecified</td>
</tr>
<tr>
<td>Comment</td>
<td>Category J44 includes “asthma with chronic obstructive pulmonary disease.” Instructional note at Category J44 advises to “Code also the type of asthma if applicable (J45.-).” In this example, the type of asthma is not specified; therefore, only J44.9 is assigned.</td>
</tr>
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### Example 6

<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>Emphysema and moderate persistent asthma</th>
</tr>
</thead>
</table>
| ICD-10-CM code | J43.9 Emphysema, unspecified  
J45.4Ø Moderate persistent asthma, uncomplicated |
| Comment         | Category J44 includes “asthma with chronic obstructive pulmonary disease” and has an instructional note to “Code also the type of asthma if applicable (J45.-).”  
Since emphysema is a more specific form of COPD, it is not appropriate to assign a code for unspecified COPD (J44.9). Instead, code J43.9 is assigned. The type of asthma is specified as moderate persistent; therefore, J45.4Ø is assigned as an additional code. |

### Example 7

<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>Asthma exacerbation, COPD</th>
</tr>
</thead>
</table>
| ICD-10-CM codes | J45.9Ø1 Unspecified asthma with (acute) exacerbation  
J44.9 COPD, unspecified |
| Comment         | Asthma with exacerbation codes to J45.9Ø1.  
COPD codes to J44.9. Category J44 includes asthma with COPD and has an instructional note that advises to “code also type of asthma, if applicable (J45.-).”  
AHA Coding Clinic, Fourth Quarter 2017, advises that although code J45.9Ø1 does not represent a type of asthma, it provides additional specificity regarding the asthma being in acute exacerbation and should be coded. |

### Example 8

<table>
<thead>
<tr>
<th>Final diagnosis</th>
<th>Acute exacerbation of COPD, acute bronchitis and acute exacerbation of asthma</th>
</tr>
</thead>
</table>
| ICD-10-CM codes | J44.Ø COPD with acute lower respiratory infection  
J2Ø.9 Acute bronchitis, unspecified  
J44.1 COPD with (acute) exacerbation  
J45.9Ø1 Unspecified asthma with (acute) exacerbation |
| Comment         | COPD with acute bronchitis codes to J44.Ø. Code J44.Ø advises to use an additional code to identify the infection, which in this example is acute bronchitis – J2Ø.9.  
COPD with acute exacerbation codes to J44.1, which “Excludes2” COPD with acute bronchitis and directs the coder to J44.Ø. A patient may have both conditions at the same time; when both conditions are documented, both codes may be assigned.  
Category J44 advises to “code also type of asthma, if applicable.  
Acute exacerbation of asthma codes to J45.9Ø1. (See example 7) |

**References:** American Hospital Association Coding Clinic; COPD Foundation; ICD-10-CM Official Guidelines for Coding and Reporting; Mayo Clinic; MedlinePlus; National Heart, Lung and Blood Institute; and WebMD.