Chronic Obstructive Pulmonary Disease: A Clinical Practice Guideline

Who developed these guidelines?
The American College of Physicians (ACP) developed these recommendations in collaboration with the American College of Chest Physicians (ACCP), American Thoracic Society (ATS), and European Respiratory Society (ERS). Members of the ACP are internists, specialists in the care of adults.

What is the problem and what is known about it so far?
Chronic obstructive pulmonary disease (COPD) occurs predominantly in cigarette smokers. People with COPD have narrowed airways, which makes it difficult to breathe, and may also have shortness of breath and wheezing. Spirometry can measure how much air a person can blow out in 1 second (called FEV₁). The FEV₁ can be used to diagnose COPD and assess its severity. Doctors treat COPD by helping patients who smoke to stop. They may also use inhaled beta-agonists or anticholinergics, corticosteroids, oxygen, or pulmonary rehabilitation (which includes education and exercise).

How did the authors develop these recommendations?
The authors reviewed recent studies on the benefits and harms of various tests and treatments for COPD.

What did the authors find?
A good indicator of risk for COPD is having smoked the equivalent of 1 pack per day for 55 years (55 pack-years). People who have never smoked or wheezed are unlikely to have COPD. The evidence does not support treating patients without COPD symptoms, even those with abnormal breathing test results, because such treatment does not improve outcomes. Strong evidence shows that inhaled beta-agonists, anticholinergics, and corticosteroids improve outcomes in symptomatic patients with an FEV₁ less than 60%; weaker evidence indicated benefit in such patients with an FEV₁ between 60% and 80%. Weak evidence shows that pulmonary rehabilitation may help symptomatic patients with a low FEV₁. Strong evidence shows that oxygen therapy helps patients with very low resting blood oxygen levels.

What do ACP, ACCP, ATS, and ERS recommend that patients and doctors do?
The guideline states that doctors should use spirometry to diagnose COPD in symptomatic patients, but not to look for COPD in patients without symptoms; consider treatment with long-acting beta-agonists, long-acting anticholinergics, or corticosteroids in symptomatic patients with an FEV₁ of 60% to 80%; administer inhaled long-acting beta-agonists or long-acting anticholinergic bronchodilators in symptomatic patients with an FEV₁ less than 60%; consider combination therapy with inhaled drugs if the FEV₁ is less than 60% and symptoms continue after treatment with 1 drug; use pulmonary rehabilitation in symptomatic patients with an FEV₁ less than 50%, and consider it for such patients with an FEV₁ greater than 50%; and consider oxygen therapy for patients with COPD who have very low blood oxygen levels at rest.

What are the cautions related to these recommendations?
These guidelines only considered studies published in 2007 to 2009.