Screening for Chronic Obstructive Pulmonary Disease

The US Preventive Services Task Force (USPSTF) has recently published a recommendation on screening for chronic obstructive pulmonary disease (COPD).

Chronic obstructive pulmonary disease is a progressive lung disease that is most often caused by cigarette smoking. It is the sixth leading cause of death in the US, and acute flares of COPD (exacerbations) can result in hospitalization. Typical symptoms of COPD include shortness of breath, wheeze, cough, and sputum production. Not starting to smoke, or quitting for those who do smoke, is the best way to prevent COPD.

What Tests Are Used to Screen for COPD?
Although the USPSTF does not recommend screening for COPD in the general population, screening questionnaires are sometimes used to identify persons at high risk for COPD. If a person is at high risk, the questionnaires may be followed by diagnostic testing with spirometry, which measures how much air is exhaled and how quickly it is exhaled, before and after treatment with an inhaled medication called a bronchodilator. Screening spirometry may also be first performed without a bronchodilator, followed by diagnostic spirometry if the screening result is abnormal.

What Is the Patient Population Under Consideration for Screening for COPD?
The USPSTF recommendation applies to adults without any respiratory symptoms such as chronic cough, sputum production, shortness of breath, or wheeze. It does not include those who have an inherited disorder that increases risk for COPD (α1-antitrypsin deficiency) or workers exposed to certain toxins at their job.

What Are the Potential Benefits and Harms of Screening for COPD?
There is no evidence that detecting and treating COPD in individuals without respiratory symptoms improves health-related quality of life or reduces mortality. For people with mild to moderate COPD who have symptoms, treatment decreases COPD exacerbations and hospitalizations, but the effect of COPD treatment on risk of death is uncertain.

Screening for chronic obstructive pulmonary disease

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Population
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USPSTF Recommendation
The USPSTF recommends against screening for COPD in asymptomatic adults.

Potential harms of medications used to treat COPD may include increased risk of diabetes and heart and lung problems. The time and cost of performing screening and diagnostic spirometry can be important.

How Strong Is the Recommendation to Screen for COPD?
Based on current evidence, the USPSTF concludes with moderate certainty that screening for COPD in asymptomatic adults has no net benefit (benefits do not outweigh harms).

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US Preventive Services Task Force
www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P

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