

ACS Releases Guideline on Screening for Lung Cancer with Low-Dose Computed Tomography

Guideline source: American Cancer Society

Evidence rating system used? No

Literature search described? Yes

Guideline developed by participants without relevant financial ties to industry? No

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In late 2010, results from the National Lung Screening Trial showed that lung cancer mortality was significantly reduced in high-risk adults who received annual screenings using low-dose computed tomography (CT). After these results were announced, the American Cancer Society (ACS) joined with the American College of Chest Physicians, the American Society of Clinical Oncology, and the National Comprehensive Cancer Network to produce a systematic review on the evidence for screening for lung cancer using low-dose CT. The review focused on the following key questions: What are the potential benefits and harms of using low-dose CT to screen persons at high risk of lung cancer? Which groups are likely to benefit? And in what setting would screening be most effective?

The ACS used the findings from the systematic review to create recommendations for a process of informed and shared decision making between physicians and patients that should occur before any decision is made to initiate screening. The recommendations focus on the potential benefits, limitations, and harms associated with lung cancer screening using low-dose CT.

If access to a high-volume, high-quality lung cancer screening and treatment center is available, physicians should discuss

screening with patients 55 to 74 years of age who are in relatively good health and have a smoking history of 30 pack-years or more, who currently smoke, or who have quit within the past 15 years. Physicians should not discuss low-dose CT screening with patients who do not meet these criteria. If screening is requested by a patient who does not meet the criteria, he or she should be told that there is too much uncertainty about the balance of harms and benefits in persons younger or older than 55 to 74 years who have less lifetime exposure to tobacco smoke, and that screening is therefore not recommended.

Physicians should ask about current and past smoking in all patients 55 to 74 years of age, and discuss the following benefits, uncertainties, and harms of lung cancer screening with those who meet the eligibility criteria above:

- Low-dose CT screening substantially reduces the risk of dying from lung cancer.
- Low-dose CT will not detect all lung cancers, and not all patients who have cancer detected will avoid dying from lung cancer.
- There is a significant chance of a false-positive result, which requires additional testing and, in some cases, an invasive procedure to determine whether the abnormality is actually lung cancer. Fewer than one in 1,000 patients with false-positive results has a major complication resulting from a diagnostic workup.

Helping patients clarify their personal values can facilitate effective decision making. Those who value the opportunity to reduce their risk of dying from lung cancer and who are willing to accept the risks and costs associated with low-dose CT and the relatively high likelihood of the need for further testing may opt for annual screening. Those

who place greater value on avoiding testing that carries a high risk of false-positive results and a risk of complications, and who accept that they are at greater risk of death from lung cancer than from screening complications, may opt not to be screened.

Smoking cessation counseling remains a high priority for patients who smoke. Current smokers should be informed of their risk of lung cancer and referred to a smoking cessation program. Lung cancer screening is not an alternative to smoking cessation.

Adults who opt to be screened should be tested annually until 74 years of age. Chest radiography should not be used for lung cancer screening. Whenever possible, patients should enter a program at an institution with expertise in low-dose CT screening, with

access to a multidisciplinary team skilled in the evaluation, diagnosis, and treatment of abnormal lung lesions. If such a program is not available but the patient strongly wishes to be screened, he or she should be referred to a center that performs a reasonably high volume of lung CT, diagnostic testing, and lung cancer surgeries. If such a setting is not available and the patient is not willing or able to travel to one, the risks are sufficiently high that screening is not recommended.

At this time, few government or private insurance programs provide coverage for the initial low-dose CT to screen for lung cancer. Physicians who offer screening should tell patients how much the initial test will cost and help them determine whether they must pay for it themselves.

CARRIE ARMSTRONG, *AFP Senior Associate Editor* ■

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