Lung Cancer Screening

Resources for Physicians

Monroe County Medical Society Community-wide Guideline for Treating Tobacco Use and Dependence
Provides physicians and other clinicians with the evidence based tools necessary to systematically provide these effective treatments in outpatient setting.

American Cancer Society
- Screening Guidelines
  - Patients should be asked about their smoking history.
  - Patients who meet ALL of the following criteria may be candidates for lung cancer screening:
    - 55 to 74 years old
    - In fairly good health (people who do not have symptoms of the disease)
    - Have at least a 30 pack-year smoking history (Someone who smoked a pack of cigarettes per day for 30 years has a 30 pack-year smoking history, as does someone who smoked 2 packs a day for 10 years and then a pack a day for another 10 years.)
    - Are either still smoking or have quit smoking within the last 15 years
  - Doctors should talk to these patients about the benefits, limitations, and potential harms of lung cancer screening.
  - Screening should only be done at facilities that have the right type of CT scan and that have a great deal of experience in LDCT scans for lung cancer screening. The facility should also have a team of specialists that can provide the appropriate care and follow-up of patients with abnormal results on the scans.
- Summary Chart of Eligibility Criteria for the National Lung Screening Trial – can serve as the basis for initiating a discussion with patients about lung cancer screening
- Testing for Lung Cancer in People at High Risk - a reproducible patient information sheet to help facilitate shared decision making

American College of Radiology
- Pack year calculator

eviCore National/Med Solutions
Clinical criteria for medical necessity review of outpatient diagnostic imaging
- **eviCore healthcare – main page with links to current health plan-specific radiology criteria arranged by CPT code**

National Cancer Institute
- Lung Cancer Screening (PDQ) – subjects covered include: overview of evidence of benefit and no benefit associated with screening, description of evidence, harms of screening

Shared Decision-Making Aids
- **American College of Radiology** – Shared decision making tool based on USPSTF criteria
- **Bach Model** – Presents 10-year absolute risk estimates for an individual being diagnosed with lung cancer. (constructed from data derived from the β-Carotene and Retinol Efficacy Trial, a multicenter randomized, controlled study of β-carotene and vitamin A supplementation in over 14,000 heavy smokers (mostly men) and over 4000 asbestos-exposed men.
- **Brock University** - Gives an exact percent risk in the next 6 years and includes a few other factors such as weight, race, and education. It does not discuss the risk reduction achieved from screening.
- **Hoggart Model**- A risk model for lung cancer using prospective cohort data from a general population which predicts individual incidence in a given time period.
- **LLP Model** - An individual risk prediction model to estimate the probability that an individual with a specified combination of risk factors would develop lung cancer within a 5-year period. (developed using 579 lung cancer cases and 1157 age- and sex-matched population-based controls from a case-control study that was a part of the Liverpool Lung Project
- **Memorial Sloan Kettering** - Provides lung screening assessment for 1,000 people like the patient over the next 6 yrs in the following categories: 1) Out of 1,000 people like the patient who are NOT screened, number who will be diagnosed with and die from lung cancer - 6.4; 2) Out of 1,000 people like the patient who ARE screened, number who will die from lung cancer - 5.2; 3) Out of 1,000 people like the patient who ARE screened, the number of lives

Guidelines are intended to be flexible. They serve as reference points or recommendations, not rigid criteria. Guidelines should be followed in most cases, but there is an understanding that, depending on the patient, the setting, the circumstances, or other factors, care can and should be tailored to fit individual needs.

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that will be saved - 1.3; 4) Number of people like the patient that would need to be screened in order for ONE similar to the patient to benefit.

- **Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial** - A lung cancer risk-prediction model based on data from the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial was more sensitive than The National Lung Screening Trial enrollment criteria for selecting individuals who were subsequently diagnosed with lung cancer.
- **Spitz Model** - Presents one-year probabilities of lung cancer and compare with baseline incidence rates. (based on a sample of 1851 lung cancer cases and 2001 age-, sex-, race-, and smoking-status (never, former, or current smokers) matched controls from an ongoing lung cancer case control study at the University of Texas MD Anderson Cancer Center in Houston, Texas)

Resources for Patients

American Cancer Society
- Lung cancer detection and early prevention
- Guide to Quitting Smoking

American College of Radiology
- What is lung cancer screening
- Benefits and Harms of Screening
- Lung cancer screening compared to other tests
- Causes of lung cancer
- Reducing risk of lung cancer

American Lung Association
- How to Quit Smoking

Dartmouth-Hitchcock Medical Center Lung Cancer Screening Program
Helping you decide about Lung Cancer Screening - explains the benefits and harms of lung cancer screening with low-dose CT scans.

National Cancer Institute
- Lung Cancer Screening (PDQ) – subjects covered include: What is screening; General Information About Lung Cancer; Lung Cancer Screening; Risks of Lung Cancer Screening
- Patient and Physician Guide: National Lung Screening Trial - explains benefits and harms of low-dose CT

National Comprehensive Cancer Network
Lung Cancer Screening – describes who should be screened and tests used for screening

Radiology Info.org
Radiology Information for patients produced by the Radiological Society of North America and the American College of Radiology
http://www.radiologyinfo.org/en/info.cfm?pg=screening-lung