



IEHP UM Subcommittee Approved Authorization Guideline			
Guideline	CT Screening (Low Dose) for Lung Cancer	Guideline #	UM_DIA 04
		Original Effective Date	6/27/2007
Section	Diagnostics	Revision Date	9/19/2018

COVERAGE POLICY

The IEHP Utilization Management Subcommittee adopts (LDCT) Low Dose computed Tomography as an annual screening modality for lung cancer at this time when all the following criteria are met:

1. Age 55 – 77 years
2. Tobacco smoking history of at least 30 pack-years (packs of cigarettes smoked per day multiplied by number of years).
3. Current smoker or one who has quit smoking within the last 15 years
4. Asymptomatic (no signs or symptoms of lung cancer; e.g. weight loss, hemoptysis)
5. Documentation of a recent visit with a doctor that states the risks and benefits of proceeding with the LDCT for lung cancer screening have been discussed and agreed upon. An optional tool for doctors to use to counsel patients is available at <http://www.cancer.gov/types/lung/research/NLSTstudyGuidePatientsPhysicians.pdf> (see Appendix B)
6. The LDCT for lung cancer screening is to be performed at an American College of Radiology (ACR) Lung Cancer Screening Center Designated site (refer to <https://www.acraccreditation.org/accredited-facility-search> for a current list of accredited facility sites)

CPT Code for LDCT: S8032 (Medi-Cal) or G0297 (Medicare)

COVERAGE LIMITATIONS AND EXCLUSIONS

None

ADDITIONAL INFORMATION

Lung cancer is the third most common cancer and the leading cause of cancer deaths in the United States. Cancer of the lung and bronchus accounted for over 150,000 deaths in 2013 (more than the total number of deaths from colon, breast, and prostate cancer combined) with a median age at death of 72 years (CMS 2015). Mortality rates for lung and bronchus cancer have decreased only slightly over the past decade. The majority of cases are still diagnosed at a later stage with a low five-year relative survival rate.

Given the burden of lung cancer on the US population, a suitable screening test for lung cancer has been sought for many years. Initial studies used sputum cytology and/or chest radiography. These failed to conclusively demonstrate improvements. In 2011, the results of the NCI-

sponsored National Lung Screening Trial (NLST) were published (National Cancer Institute, 2014). The NLST showed that people aged 55-74 years with a history of heavy smoking are 20% less likely to die from lung cancer if they are screened with low dose helical CT (LDCT) as compared to chest x-rays. It was calculated that to prevent 1 death from lung cancer, 320 patients would need to be screened by 2D CT. (MCG, 2017). LDCT minimizes radiation exposure compared to a standard chest CT. While LDCT reduces radiation exposure, the image quality is also reduced which in turn may influence readability. The NLST identified risks as well as benefits. For example, people screened with low dose helical CT had a higher overall rate of false-positive results, leading to a higher rate of invasive procedures and serious complications from those procedures.

The results of the NLST study led to endorsement of the use of LDCT for lung cancer screening by a number of professional societies. These include the American Cancer Society, the American College of Radiology, the American College of Chest Physicians, and the American Thoracic Society. To optimize the benefits of the use of LDCT for lung cancer screening, these professional societies acknowledge a careful implementation of its use: one with careful patient selection that balances the risks, harms, and benefits, while ensuring appropriate access to these services in centers of proven expertise in chest radiology, pulmonary thoracic surgery, and medical and radiation oncology. The centers should provide multidisciplinary and coordinated care with registry management of findings and follow up.

In 2014, the **USPSTF** recommended annual screening for lung cancer with low-dose computed tomography in adults aged 55-80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have a curative lung surgery (B recommendation).

CLINICAL/REGULATORY RESOURCE

A. Centers for Medicare and Medicaid Services (CMS)

1. Decision Memo CAG-00439N, February 5, 2015:

The Center for Medicare & Medicaid Services (CMS) has determined that the evidence is sufficient to add a lung cancer screening counseling and shared decision-making visit, and for appropriate beneficiaries, annual screening for lung cancer with low dose computed tomography (LDCT), as an additional preventive service benefit under the Medicare program only if all of the following criteria are met:

- a. Age 55- 77 years
- b. Asymptomatic (no signs or symptoms of lung cancer; e.g. weight loss, hemoptysis)
- c. Tobacco smoking history of at least 30 pack years
- d. Current smoker or one who has quit smoking within the last 15 years

2. Radiology Imaging Facility Eligibility Requirements

- a. Performs LDCT with volumetric CT dose index of ≤ 3.0 mGy for standard size patients (5'7" and approximately 155 pounds) with adjustments for smaller and larger patients
- b. Utilizes standardized lung nodule identification, classification and reporting system
- c. Makes available smoking cessation interventions for current smokers

- d. Collects and submits data to a CMS-approved registry for each LDCT lung cancer screening test performed

B. Medi-Cal:

1. Medi-Cal Provider Manual, Radiology: Diagnostic, page 3, September 2016³³:

- a. 55 to 80 years of age
- b. Asymptomatic (no signs or symptoms of lung cancer)
- c. Tobacco-smoking history of at least 30 pack-years
- d. Current smoker or one who quit smoking within the last 15 years, and
- e. Receives a written order for low-dose computed tomography (LDCT) lung cancer screening that meets the following criteria:
 - i. For subsequent LDCT lung cancer screenings: the recipient must receive a written order for LDCT lung cancer screening, which may be furnished during any appropriate visit with a physician or qualified non-physician practitioner.
 - ii. Written orders for both initial and subsequent LDCT lung cancer screenings must contain the following information, which must also be appropriately documented in the recipient's medical records:
 - A. Recipient date of birth
 - B. Actual pack-year (number) smoking history
 - C. Current smoking status and, for former smokers, the number of years since quitting smoking
 - D. Statement that the recipient is asymptomatic (no signs or symptoms of lung cancer), and
 - E. National Provider Identifier (NPI) of the ordering practitioner
- f. Screening should be discontinued once a recipient has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability to have curative lung surgery

C. The U.S. Preventive Services Task Force (USPSTF, December 2013)

Grade B. "The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery."

D. American College of Chest Physicians and American Thoracic Society Policy Statement "Components Necessary for High Quality Lung Cancer Screening," (Mazzone, et al., Chest. 2014):

The authors presented a joint position statement endorsed by the American College of Chest Physicians, American Thoracic Society, American Association of Thoracic Surgery, American Cancer Society, and American Society of Preventive Oncology: "Lung cancer screening with a low dose chest CT scan can result in more benefit than harm when performed in settings committed to developing and maintaining high quality programs. This project aimed to identify the components of screening that should be a part of all lung cancer screening programs. To do so, committees with expertise in lung cancer screening were

assembled by the Thoracic Oncology Network of the ACCP and the Thoracic Oncology Assembly of the ATS. Lung cancer program components were derived from evidence-based reviews of lung cancer screening, and supplemented by expert opinion. Nine essential components of a lung cancer screening program were identified”

1. Who is offered lung cancer screening
2. How often, and for how long, to screen
3. How the CT is performed
4. Lung nodule identification
5. Structured reporting
6. Lung nodule management algorithms
7. Smoking cessation
8. Patient and provider education
9. Data collection

E. American College of Radiology (ACR) Lung Cancer Screening Designation

Radiology facilities that have the following criteria have been designated ACR Lung Cancer Screening sites:

1. Definition of eligible and appropriate screening population
2. Incorporation of smoking cessation
3. Physician qualification of at least 200 chest CT exams in prior 36 months
4. Structured reporting and management tool, such as Lung-RADS
5. Multi-detector, helical (spiral) scanner; low-dose CT protocol must have a CT dose index volume of ≤ 3 mGy for a standard-size patient (5'7", 154 lb.)
6. Exposure techniques must be adjusted for patient size
7. Participation in the ACR Dose Index Registry is recommended (scheduled to go live May 2015 with planned back entries to January 2015)
8. Use and submit a low-dose CT protocol that meets the criteria outlined in the ACR-Society of Thoracic Radiology Practice Parameter for the Performance and Reporting of Lung Cancer Screening Thoracic CT

DEFINITION OF TERMS

None

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