



Medicare Coverage of Lung Cancer Screening with Low Dose CT

Joseph Chin, MD MS

Deputy Director, Coverage and Analysis Group / CMS

NAS Workshop, 06/20/2016

Disclaimers

This publication is a general summary that explains certain aspects of the Medicare Program, but is not a legal document. The official Medicare Program provisions are contained in the relevant laws, regulations, and rulings.

This presentation was prepared as a service to the public and is not intended to grant rights or impose obligations. This fact sheet may contain references or links to statutes, regulations, or other policy materials. The information provided is only intended to be a general summary. It is not intended to take the place of either the written law or regulations. We encourage readers to review the specific statutes, regulations, and other interpretive materials for a full and accurate statement of their contents.

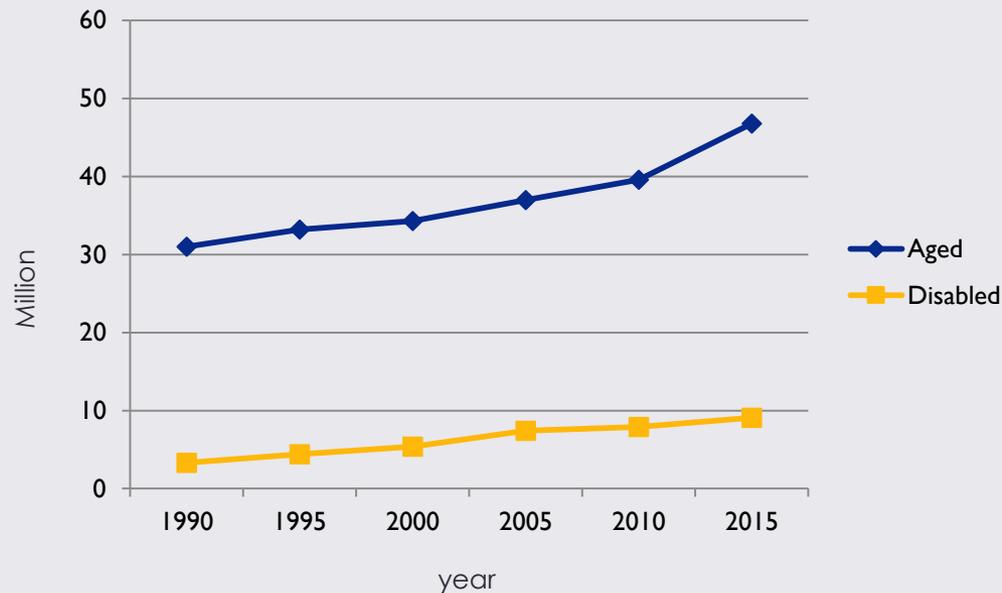
This presentation was current at the time it was published or uploaded to the web. Medicare policy changes frequently so links to the source documents have been provided within the document. The Centers for Medicare & Medicaid Services employees, agents, and staff make no representation, warranty, or guarantee that this compilation of Medicare information is error-free and will bear no responsibility or liability for the results or consequences of the use of this guide.

Medicare Construct

- Established by the Social Security Act of 1965, Title XVIII
 - §1862(a)(1) Notwithstanding any other provision of this title, no payment may be made under part A or part B for any expenses incurred for items or services—
 - (A) which, except for items and services described in a succeeding subparagraph or additional preventive services (as described in section 1395x(ddd)(1) of this title), are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member
 - (E) in the case of research conducted pursuant to §1142, which is not reasonable and necessary
- Defined benefit program
 - Beneficiaries
 - Providers
 - Settings

Medicare Population

- Age \geq 65 years
- Disabled individuals
- Patients with end stage renal disease



Medicare Coverage of Preventive Services

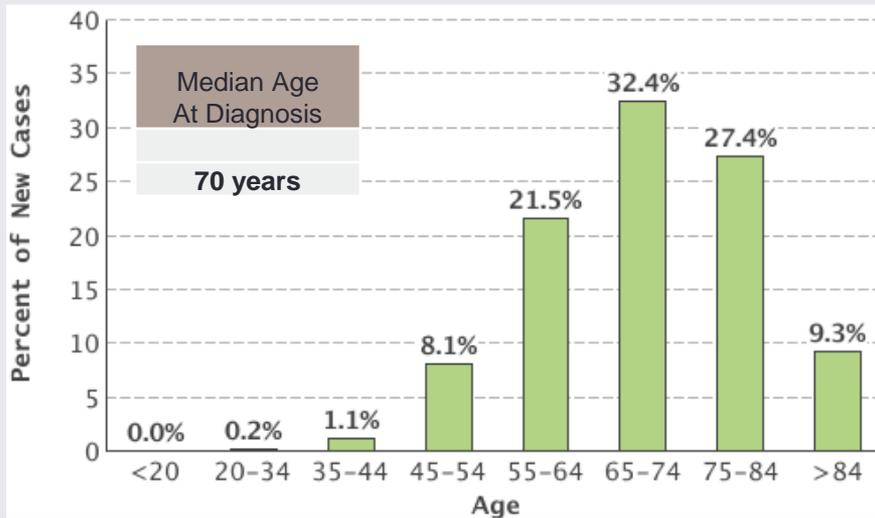
CMS authority to add preventive services established by the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA, Section 101).

May add using national coverage determination (NCD) process if the service meets all of the following:

- Reasonable and necessary for the prevention or early detection of illness or disability.
- Recommended with a grade of A or B by the United States Preventive Services Task Force.
- Appropriate for individuals entitled to benefits under Part A or enrolled under Part B.
- “Secretary [HHS] may conduct an assessment of the relation between predicted outcomes and the expenditures for such service and may take into account the results of such assessment in making such determination”

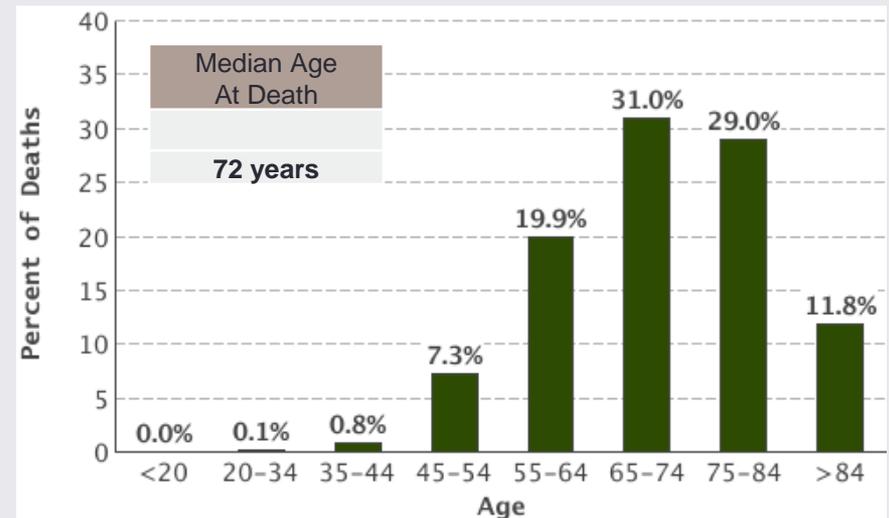
Lung and Bronchus Cancer (2009-2013)

New Cases of Lung and Bronchus Cancer



Lung and bronchus cancer is most frequently diagnosed among people aged 65-74.

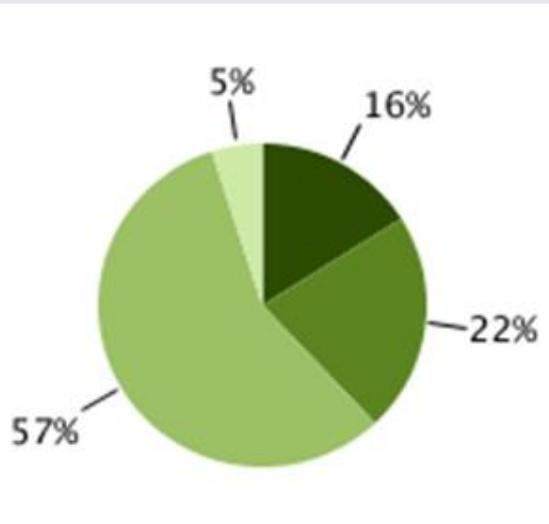
Deaths from Lung and Bronchus Cancer



The percent of lung and bronchus cancer deaths is highest among people aged 65-74.

Stage of Diagnosis and Survival (2006-2012)

Percent of Cases by Stage



Percent of Cases by Stage

Localized (16%)

Confined to Primary Site

Regional (22%)

Spread to Regional Lymph Nodes

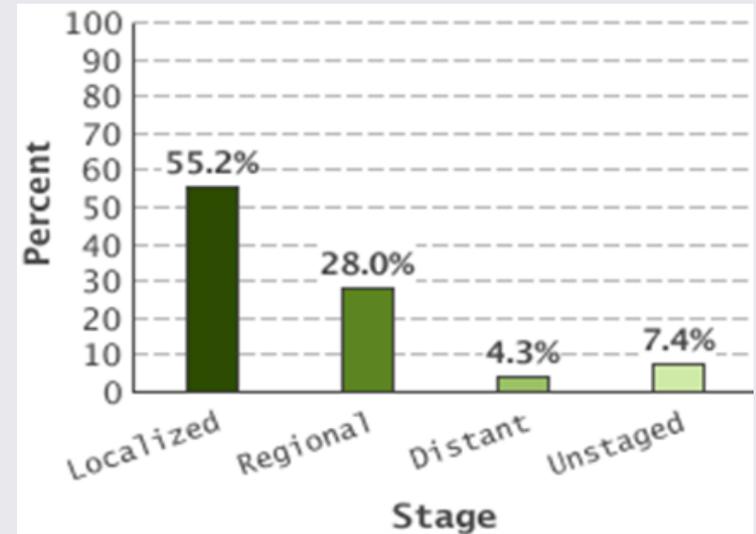
Distant (57%)

Cancer Has Metastasized

Unknown (5%)

Unstaged

5-Year Relative Survival



National Lung Screening Trial (2011)



- Randomized trial LDCT vs chest radiology annually x3
- “Eligible participants were between 55 and 74 years of age at the time of randomization, had a history of cigarette smoking of at least 30 pack years, and, if former smokers, had quit within the previous 15 years.”
- N= 53,454
- “Screening with the use of low-dose CT reduces mortality from lung cancer.”

Lung Cancer Screening Trials

- Narrow window of evidence of benefit
 - NLST was positive; DANTE and DLSCT were negative
 - Different comparison, age, smoking history, definition of positive

	Age (inclusion criterion)	Smoking history (inclusion criterion)	Positive result LDCT (false positive rate)
DANTE; n = 2472 CTx5 vs no screening	mean age = 64.6; (60-74 years)	mean = 47 pack-years; (≥ 20 pack-years)	non-calcified nodule ≥ 10 mm, etc; (291/351, 83%)
DLSCT; n = 4104 CTx5 vs no screening	91% 50-64 years; (50-70 years)	mean = 36 pack-years; (≥ 20 pack-years)	nodule ≥ 5 mm; (542/611, 89%)
NLST; n = 53454 CTx3 vs CXR	73% 55-64 years; (55-74 years)	mean = 56 pack-years; (≥ 30 pack-years)	non-calcified nodule ≥ 4 mm; (17497/18146, 96 %)

Infante M, et al.; DANTE Study Group. A randomized study of lung cancer screening with spiral computed tomography: three-year results from the DANTE trial. *Am J Respir Crit Care Med.* 2009 Sep 1;180(5):445-53. PMID: 19520905

Saghir Z, et al. CT screening for lung cancer brings forward early disease. The randomised Danish Lung Cancer Screening Trial: status after five annual screening rounds with low-dose CT. *Thorax.* 2012 Apr;67(4):296-301. PMID: 22286927

USPSTF Lung Cancer Screening (2013)

CLINICAL GUIDELINE | Annals of Internal Medicine

Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement

Virginia A. Moyer, MD, MPH, on behalf of the U.S. Preventive Services Task Force*

Description: Update of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for lung cancer.

Methods: The USPSTF reviewed the evidence on the efficacy of low-dose computed tomography, chest radiography, and sputum cytologic evaluation for lung cancer screening in asymptomatic persons who are at average or high risk for lung cancer (current or former smokers) and the benefits and harms of these screening tests and of surgical resection of early-stage non-small cell lung cancer. The USPSTF also commissioned modeling studies to provide information about the optimum age at which to begin and end screening, the optimum screening interval, and the relative benefits and harms of different screening strategies.

Population: This recommendation applies to asymptomatic 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.

Recommendation: The USPSTF recommends annual screening for lung cancer with low-dose computed tomography 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. (B recommendation)

Ann Intern Med. 2014;160(5):330-8. www.annals.org
For author affiliation, see end of text.
* For a list of the members of the USPSTF, see the Appendix (available at www.annals.org).
This article was published online first at www.annals.org on 21 December 2013.

SUMMARY OF RECOMMENDATION AND EVIDENCE

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. (B recommendation)

See the Clinical Considerations section for suggestions for implementation in practice.
See the Figure for a summary of the recommendation and suggestions for clinical practice.
Appendix Table 1 describes the USPSTF grades, and Appendix Table 2 describes the USPSTF classification of levels of certainty about net benefit (both tables are available at www.annals.org).

RATIONALE
Importance

Lung cancer is the third most common cancer and the leading cause of cancer-related death in the United States (1). The most important risk factor for lung cancer is smoking, which results in approximately 85% of all U.S. lung cancer cases (2). Although the prevalence of smoking

The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without related signs or symptoms.

It bases its recommendations on the evidence of both the benefit and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

See also:
Print
Related article 311
Editorial comments 363, 365
Summary for Patients 1-40
Web-Only
CME quiz

Annals of Internal Medicine
330 | March 2014 | Annals of Internal Medicine | Volume 160 | Number 5
Downloaded From: http://annals.org/ by a Ctr for Medicare & Medicaid Serv User on 04/22/2014

U.S. Preventive Services TASK FORCE
www.USPreventiveServicesTaskForce.org
www.annals.org

The USPSTF recommends annual screening for lung cancer with low-dose computed tomography 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.

(B recommendation)

MEDCAC

- Medicare Evidence Development & Coverage Advisory Committee (MEDCAC), April 30, 2014
 - Low confidence that there is adequate evidence that the benefits outweigh the harms of lung cancer screening with LDCT in the Medicare population
 - Low confidence that the harms of lung cancer screening with LDCT if implemented in the Medicare population will be minimized
 - High confidence that clinically significant evidence gaps remain regarding the use of LDCT for lung cancer screening in the Medicare population outside a clinical trial
- Concerns about over-diagnosis, false positive results and diagnostic evaluation of nodules in older adults
- Translational / implementation issues

Stakeholder Engagement

Multi-society, multi-disciplinary meetings

[Commentary]

CHEST

Components Necessary for High-Quality Lung Cancer Screening American College of Chest Physicians and American Thoracic Society Policy Statement

Peter Mazzone, MD, MPH, FCCP; Charles A. Powell, MD; Douglas Arenberg, MD, FCCP; Peter Bach, MD; Frank Detterbeck, MD, FCCP; Michael K. Gould, MD, FCCP; Michael T. Jaklitsch, MD; James Jett, MD, FCCP; David Naidich, MD, FCCP; Anil Vachani, MD; Randa Soylerman Wiener, MD; and Gerard Silvestri, MD, FCCP



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 American College of Chest Physicians (CHEST) and the Thoracic Oncology Assembly of the American Thoracic Society (ATS). Lung cancer program components were derived from evidence-based reviews of lung cancer screening and supplemented by expert opinion. This statement was developed and modified based on iterative feedback of the committees. Nine essential components of a lung cancer screening program were identified. Within these components 24 Policy Statements were developed and translated into criteria that could be used to assess the qualification of a program as a screening facility. Two additional Policy Statements related to the need for multi-society governance of lung cancer screening were developed. High-quality lung cancer screening programs can be developed within the presented framework of nine essential program components outlined by our committees. The statement was developed, reviewed, and formally approved by the leadership of CHEST and the ATS. It was subsequently endorsed by the American Association of Thoracic Surgery, American Cancer Society, and the American Society of Preventive Oncology.

CHEST 2015; 147(2):295-303

ABBREVIATIONS: ACR = American College of Radiology; ATS = American Thoracic Society; CHEST = American College of Chest Physicians; LDCT = low-dose CT; NLST = National Lung Screening Trial; STR = Society of Thoracic Radiology; USPSTF = US Preventive Services Task Force

Manuscript received October 8, 2014; revision accepted October 24, 2014.

AFFILIATIONS: From the Respiratory Institute (Dr Mazzone), Cleveland Clinic, Cleveland, OH; the Division of Pulmonary, Critical Care, and Sleep Medicine (Dr Powell), Keck School of Medicine at Mount Sinai, New York, NY; the Division of Pulmonary and Critical Care Medicine (Dr Arenberg), University of Michigan, Ann Arbor, MI; the Center for Health Policy and Outcomes (Dr Bach), Memorial Sloan-Kettering Cancer Center, New York, NY; the Section of Thoracic Surgery (Dr Detterbeck), Yale, New Haven, CT; Department of Research and Evaluation (Dr Gould), Kaiser Permanente Southern California, Pasadena, CA; the Division of Thoracic Surgery (Dr Jaklitsch), Brigham and Women's Hospital, Boston, MA; the Division of Oncology (Dr Jett), National Jewish Health, Denver, CO; the Department of Radiology (Dr Naidich), NYU Langone

Medical Center, New York, NY; the Pulmonary, Allergy, & Critical Care Division (Dr Vachani), University of Pennsylvania, Philadelphia, PA; the Center for Healthcare Organization and Implementation Research (Dr Wiener), Edith Nease Rogers Memorial Veterans Hospital, Bedford, MA; the Pulmonary Center (Dr Wiener), Boston University School of Medicine, Boston, MA; and the Division of Pulmonary and Critical Care (Dr Silvestri), Medical University of South Carolina, Charleston, SC.

CORRESPONDENCE: To: Peter J. Mazzone, MD, MPH, FCCP, 9900 Foulke Ave, 400, Cleveland, OH 44196; e-mail: mazzone@case.edu

© 2015 AMERICAN COLLEGE OF CHEST PHYSICIANS. Reproduction of this article is prohibited without written permission from the American College of Chest Physicians. See online for more details.
DOI: 10.1379/chest.14.2500

journal.publications.chestnet.org

295

ORIGINAL ARTICLE

ACR CT Accreditation Program and the Lung Cancer Screening Program Designation

Ella A. Kazerooni, MD, MS^a, Mark R. Armstrong, MD^b, Judith K. Amorosa, MD^c, Dina Hernandez, BSRT, RT(R)(CT)(QM)^d, Lawrence A. Liebscher, MD^e, Hrudaya Nath, MD^f, Michael F. McNitt-Gray, PhD^d, Eric J. Stern, MD^g, Pamela A. Wilcox, RN, MBA^h

Abstract

The ACR recognizes that low-dose CT for lung cancer screening has the potential to significantly reduce mortality from lung cancer in the appropriate high-risk population. The ACR supports the recommendations of the US Preventive Services Task Force and the National Comprehensive Cancer Network for screening patients. To be effective, lung cancer screening should be performed at sites providing high-quality low-dose CT examinations overseen and interpreted by qualified physicians using a structured reporting and management system. The ACR has developed a set of tools necessary for radiologists to take the lead on the front lines of lung cancer screening. The ACR Lung Cancer Screening Center designation is built upon the ACR CT accreditation program and requires use of Lung-RADS or a similar structured reporting and management system. This designation provides patients and referring providers with the assurance that they will receive high-quality screening with appropriate follow-up care.

J Am Coll Radiol 2015;12:38-42. Copyright © 2015 American College of Radiology

INTRODUCTION

The American Cancer Society estimates that in 2014, a total of 224,210 people in the United States will be diagnosed with lung cancer, and 159,260 will die from the disease [1]. The National Lung Cancer Screening Trial, funded by The National Cancer Institute, demonstrated that low-dose CT (LDCT) screening reduces lung cancer mortality by 20% in high-risk patients age 55-74 years who have a 30-pack-year history of smoking, and does so cost effectively [2-4]. In

December 2013, the US Preventive Services Task Force (USPSTF) gave LDCT lung cancer screening a favorable grade-B rating after completion of extensive deliberation, analysis of the lung cancer screening literature, and additional commissioned modeling studies [5]. Under the 2010 Patient Protection and Affordable Care Act [6], the USPSTF recommendation triggers coverage by third-party payers for this lifesaving measure, starting in 2015.

The ACR strongly supports the use of LDCT for lung cancer screening and believes that the ability of this technique to reduce mortality depends on appropriate patient selection, the performance of high-quality, low-radiation exposure LDCT examinations interpreted by qualified physicians, and a structured reporting and management system as the foundation for quality reporting and outcomes monitoring. Building on existing ACR experience with breast cancer screening, including the comprehensive widespread use of BI-RADS[®], research accreditation, quality metrics, and both clinical and imaging registries, the ACR has focused on expeditiously bringing tools to practicing radiologists to promote the dissemination of high-quality lung cancer screening.

The ACR-Society of Thoracic Radiology (STR) Practice Parameter for the Performance and Reporting of Lung

^aUniversity of Michigan Health System, Ann Arbor, Michigan.

^bDuke Diagnostic Imaging, New York, New York.

^cUniversity of Medicine and Dentistry of New Jersey, Newark, New Jersey.

^dAmerican College of Radiology, Reston, Virginia.

^eCedar Valley Medical Specialists, Waterloo, Iowa.

^fUniversity of Alabama, Tuscaloosa, Alabama.

^gRoyal College School of Medicine, University of California Los Angeles, Los Angeles, California.

^hUniversity of Washington, Seattle, Washington.

ⁱYoneda A. Wilcox, RN, MBA, American College of Radiology, Reston, Virginia.

Corresponding author and reprint: Ella A. Kazerooni, MD, MS, University of Michigan Health System, Cardiovascular Center, Room #5402, 1500 E

Medical Center Drive, Ann Arbor, MI 48109; e-mail: ekazero@umich.edu.

Mazzone P, Powell CA, Arenberg D, Bach P, Detterbeck F, Gould MK, Jaklitsch MT, Jett J, Naidich D, Vachani A, Wiener RS, Silvestri G. Components necessary for high-quality lung cancer screening: American College of Chest Physicians and American Thoracic Society Policy Statement. Chest. 2015 Feb;147(2):295-303.

Kazerooni EA, Armstrong MR, Amorosa JK, Hernandez D, Liebscher LA, Nath H, McNitt-Gray MF, Stern EJ, Wilcox PA. ACR CT accreditation program and the lung cancer screening program designation. J Am Coll Radiol. 2015 Jan;12(1):38-42.

Medicare National Coverage Determination Screening for Lung Cancer with LDCT

- Annual screening for lung cancer with LDCT, as an additional preventive service benefit under the Medicare program only if all of the following eligibility criteria are met.
- Beneficiary Eligibility Criteria
 - For purposes of Medicare coverage of lung cancer screening with LDCT, beneficiaries must meet all of the following eligibility criteria:
 - Age 55 – 77 years;
 - Asymptomatic (no signs or symptoms of lung cancer);
 - Tobacco smoking history of at least 30 pack-years (one pack-year = smoking one pack per day for one year; 1 pack = 20 cigarettes);
 - Current smoker or one who has quit smoking within the last 15 years.
- Counseling and Shared Decision Making Visit

NCD Lung Cancer Screening with LDCT (cont.)

- Reading Radiologist Eligibility Criteria
- For purposes of Medicare coverage of lung cancer screening with LDCT, the reading radiologist must meet all of the following eligibility criteria:
 - Board certification or board eligibility with the American Board of Radiology or equivalent organization;
 - Documented training in diagnostic radiology and radiation safety;
 - Involvement in the supervision and interpretation of at least 300 chest computed tomography acquisitions in the past 3 years;
 - Documented participation in continuing medical education in accordance with current American College of Radiology standards; and
 - Furnish lung cancer screening with LDCT in a radiology imaging facility that meets the radiology imaging facility eligibility criteria described below.

NCD Lung Cancer Screening with LDCT (cont.)

- Radiology Imaging Facility Eligibility Criteria
- For purposes of Medicare coverage, lung cancer screening with LDCT must be furnished in a radiology imaging facility that meets all of the following eligibility criteria:
 - Performs LDCT with volumetric CT dose index (CTDIvol) of < 3.0 mGy (milligray) for standard size patients (defined to be 5' 7" and approximately 155 pounds) with appropriate reductions in CTDIvol for smaller patients and appropriate increases in CTDIvol for larger patients;
 - Utilizes a standardized lung nodule identification, classification and reporting system;
 - Makes available smoking cessation interventions for current smokers; and
 - Collects and submits data to a CMS-approved registry for each LDCT lung cancer screening performed. The data collected and submitted to a CMS-approved registry must include, at minimum, all of the following elements:

NCD Lung Cancer Screening with LDCT (cont.)

- Minimum data elements

<i>Data Type</i>	<i>Minimum Required Data Elements</i>
<i>Facility</i>	<i>Identifier</i>
<i>Radiologist (reading)</i>	<i>National Provider Identifier (NPI)</i>
<i>Patient</i>	<i>Identifier</i>
<i>Ordering Practitioner</i>	<i>National Provider Identifier (NPI)</i>
<i>CT scanner</i>	<i>Manufacturer, Model.</i>
<i>Indication</i>	<i>Lung cancer LDCT screening – absence of signs or symptoms of lung cancer</i>
<i>System</i>	<i>Lung nodule identification, classification and reporting system</i>
<i>Smoking history</i>	<i>Current status (current, former, never). If former smoker, years since quitting. Pack-years as reported by the ordering practitioner. For current smokers, smoking cessation interventions available.</i>
<i>Effective radiation dose</i>	<i>CT Dose Index (CTDIvol).</i>
<i>Screening</i>	<i>Screen date Initial screen or subsequent screen</i>

*Information regarding CMS-approved registries is posted on the CMS website at:
<http://www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilities/Lung-Cancer-Screening-Registries.html>*

Counseling & Shared Decision Making Visit

- First formal Medicare SDM coverage requirement
 - Determination of beneficiary eligibility including age, absence of signs or symptoms of lung cancer, a specific calculation of cigarette smoking pack-years; and if a former smoker, the number of years since quitting;
 - Shared decision making, including the use of one or more decision aids, to include benefits and harms of screening, follow-up diagnostic testing, over-diagnosis, false positive rate, and total radiation exposure;
 - Counseling on the importance of adherence to annual lung cancer LDCT screening, impact of comorbidities and ability or willingness to undergo diagnosis and treatment;
 - Counseling on the importance of maintaining cigarette smoking abstinence if former smoker; or the importance of smoking cessation if current smoker and, if appropriate, furnishing of information about tobacco cessation interventions;
 - If appropriate, the furnishing of a written order for lung cancer screening with LDCT.

Evidence-based Decision Aids

- Several evidence-based decision aids and support tools have been developed and published since our NCD requiring SDM and use of decision aid, including but not limited to:
 - NIH National Cancer Institute (<http://www.cancer.gov/newscenter/qa/2002/NLSTstudyGuidePatientsPhysicians>)
 - Memorial Sloan Kettering (<https://www.mskcc.org/cancer-care/types/lung/screening/lung-screening-decision-tool>)
 - University of Michigan (<http://news.thoracic.org/ats-develops-lung-cancer-screening-decision-aid/>)
 - American Thoracic Society (<http://news.thoracic.org/ats-develops-lung-cancer-screening-decision-aid/>)
 - Volk R, Linder S, Cinciripini P. Lung Cancer Screening Decision Aid Development and Testing (NCT02282969)
 - Studts J, Byrne MM. Development and Feasibility Testing of a Lung Cancer Screening Decision Aid (LuCaS-DA) (NCT02790866)

AHRQ Lung Cancer Screening Tools



Is lung cancer screening right for me?

A Decisionmaking Tool for You and Your Health Care Professional

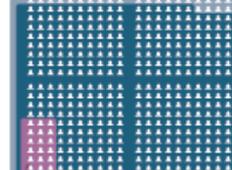
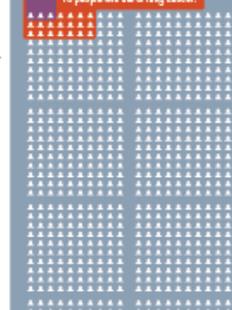
If you have smoked for many years, you may want to think about lung cancer screening (testing) with low-dose computed tomography (LDCT). Before making a decision, you should think about the possible benefits and harms of lung cancer screening.

What are the possible benefits and harms of lung cancer screening?*

Out of 1,000 people screened with LDCT for lung cancer:

3 lung cancer deaths will be prevented.

19 people will die of lung cancer.



356 people will get a "false alarm."

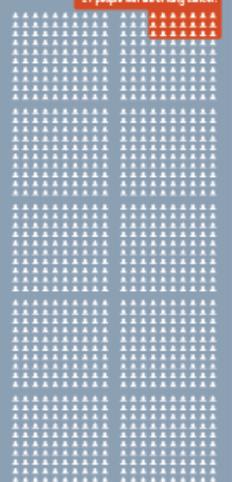
18 of those people will get a "false alarm" will have an invasive procedure like a biopsy.

Less than 1 of the 18 people who have an invasive procedure will have a major complication (e.g., infection, bleeding in lung, collapsed lung).

*For people screened once a year for 3 years and followed for an average of 6.5 years. This information applies to people who are at high risk of lung cancer because of their smoking history and age. The possible benefits and harms from lung cancer screening represent the "average" effect and may not apply to all healthy current and former heavy smokers.

Out of 1,000 people not screened with LDCT for lung cancer:

21 people will die of lung cancer.



For example, screening can find heart disease or thickened tissue in the lungs from scarring. Researchers do not know the possible benefits or harms of finding other things about your health through lung cancer screening.

Finding other things that are not lung cancer:
For example, screening can find heart disease or thickened tissue in the lungs from scarring. Researchers do not know the possible benefits or harms of finding other things about your health through lung cancer screening.

What are the possible benefits and harms of lung cancer screening with LDCT?

BENEFIT: Greater chance of not dying from lung cancer

- ▶ If 1,000 people are not screened for lung cancer with LDCT, 21 will die from lung cancer.
- ▶ If 1,000 people are screened once a year with LDCT for 3 years, 19 will die from lung cancer.
- ▶ This means that with LDCT screening, 3 fewer people will die from lung cancer.

BENEFIT: Greater chance of not dying from any cause (not just lung cancer)

- ▶ If 1,000 people are not screened for lung cancer with LDCT, 76 will die from any cause.
- ▶ If 1,000 people are screened once a year with LDCT for 3 years, 70 will die from any cause.
- ▶ This means that with LDCT screening, 6 fewer people will die from any cause.

HARM: False alarms and unneeded additional testing

A false alarm happens when a person has a positive screening test but does not actually have lung cancer.

- ▶ If 1,000 people are screened every year for 3 years, about 366 will have a false alarm.
- ▶ Of these 366 people with a false alarm, 18 will have an invasive procedure such as a biopsy (a tiny piece of lung tissue is removed to test for cancer).
- ▶ Of these 18 people, less than 1 will have a major complication as a result of the procedure, such as bleeding in the lung, a collapsed lung, or an infection.

If you have a positive screening test, but your follow-up imaging tests and biopsy do not show cancer, you could still get lung cancer in the future. So it is important for you and your health care professional to discuss lung cancer screening every year.

HARM: Radiation Exposure

This includes radiation from screening plus radiation from additional testing. High doses (amounts) of radiation increase a person's chance of developing cancer.

HARM: Overdiagnosis

Screening may find lung cancer that would not have harmed the person in his or her lifetime.



WHAT ELSE SHOULD YOU THINK ABOUT WHEN DECIDING ABOUT LUNG CANCER SCREENING?

- ▶ Lung cancer screening should be done every year until you no longer need to be screened.
- ▶ Lung cancer screening may not be right for you if you develop other major health problems.
- ▶ If you are not willing to have lung surgery, lung cancer screening may not be right for you.
- ▶ Lung cancer screening is not a substitute for quitting smoking.

INSURANCE COVERAGE

- ▶ Private insurance plans cover lung cancer screening for people age 55 through 80 with no out-of-pocket costs.
- ▶ Medicare covers lung cancer screening with no out-of-pocket costs for people up to age 77 years who meet other criteria.
- ▶ You and your insurance company will be responsible for the costs of additional tests and treatment after the initial screening test.

What is important to you when deciding?	Favors Screening	Favors No Screening
How important is:	Very Important	Not Important
Finding lung cancer early when it may be more easily treated?	<input type="radio"/>	<input type="radio"/>
How concerned are you about:	Not Concerned	Very Concerned
Having a false alarm?	<input type="radio"/>	<input type="radio"/>
Having other tests if you have a positive screening test?	<input type="radio"/>	<input type="radio"/>
Being exposed to radiation from lung cancer screening?	<input type="radio"/>	<input type="radio"/>
Being treated for lung cancer that never would have harmed you?	<input type="radio"/>	<input type="radio"/>
Being harmed by the treatments you receive for lung cancer?	<input type="radio"/>	<input type="radio"/>

WHAT OTHER QUESTIONS DO YOU HAVE?

BENEFITS OF QUITTING SMOKING

- ▶ Lower risk for other types of cancer.
- ▶ Lower risk for heart disease, stroke, and narrowing of the blood vessels outside your heart.
- ▶ Fewer problems with breathing, such as coughing, wheezing, or shortness of breath.
- ▶ Lower risk for other lung disease (such as chronic obstructive pulmonary disease or COPD).

WHAT IS YOUR DECISION ABOUT LUNG CANCER SCREENING?

- Screening is right for me. (Ask your health care professional for the screening center information.)
- Screening is not right for me.
- I am unsure about screening.

NEXT STEPS IF SCREENING IS RIGHT FOR YOU

Get a written order from your health care professional and go to the imaging facility listed below.

Name: _____

Address: _____

Phone: _____

Email or Web site: _____

Date of screening visit: _____

Remember, the best way to prevent lung cancer is to **STOP SMOKING.**
If you currently smoke, talk to your health care professional or call the nationwide quit line at 1-800-QUIT-NOW (1-800-784-8669).



AHRQ Pub. No. 14-THC007-13-A
March 2016

Next Steps

- Post coverage analysis – SDM, LDCT

G0296 (SDM)	1023	G0297 (LDCT)	8971
-------------	------	--------------	------

- Registry data (real world data)
- Administrative data (outcomes)
- Refine coverage criteria and SDM visit

Thank you