Shared Decision Making Tools for Lung Cancer Screening

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SHARE Approach Webinar Series

Webinar 5
Shared Decision Making Tools for Lung Cancer Screening

Other Webinars available at:
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- Questions will be read aloud by the moderator.
- SHARE@ahrq.hhs.gov
Learning objectives

At the conclusion of this activity, participants will be able to:

1. Explain how shared decision making can be helpful to patients and providers in deciding whether to participate in lung cancer screening.
2. Describe the key components of an effective lung cancer screening toolkit for use in primary care settings.
3. Explain how using an effective decision aid and other tools can meet the shared decision making and patient counseling visit requirements of the Centers for Medicare & Medicaid Services (CMS) for Medicare coverage of lung cancer screening with low-dose computed tomography.
AHRQ’s Effective Health Care Program

http://www.effectivehealthcare.ahrq.gov/
Shared Decision Making Tools for Lung Cancer Screening

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Let’s begin with a case...

- A 60-year-old female presents for a periodic health examination. She mentions seeing a large billboard along the highway, showing $99 lung cancer screenings at a local medical facility. She asks, “Doc, should I get that lung screening test? I’ve been smoking for 40 years.”

- What do you recommend?
The National Lung Screening Trial

Main findings published in 2011.

Randomized >53,000 heavy smokers to:

- Low-dose computed tomography (LDCT) or chest x-ray
- 3 annual screens
- Followed 6.5 years

Reduced lung cancer deaths by 16-20%.

A game changer!

NNS = 320

But... ...lung cancer screening with LDCT carries potential harms:

- Radiation exposure ()
- High positive rate:
  - 20-25% per scan
  - ~40% if screened annually for 3 years
- Invasive procedures
- Incidental findings (may be a benefit)
- Overdiagnosis rate estimated at 10-20%

Response from the health care community

Direct-to-consumer marketing campaigns

CT scans for smokers offered for $99 in hopes of catching lung cancer early

A $99 lung scan could save your life. Find out if you’re a good candidate.

New Clinical Guidelines
ACS, ASCO, ACCP, NCCN (2012, 2013)
All emphasize the importance of an informed/shared decision making process!

Smoking cessation/abstinence is essential!
Lung cancer screening recommendations

• Update of 2004 recommendation
• Triggered largely by publication of NLST
• Used comparative modeling to determine optimal screening strategy
  — Most efficient strategy: interval, age at initiation/stopping, pack-year threshold, years since quit

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.

http://www.uspreventiveservicestaskforce.org/
Other considerations: **Smoking cessation counseling**

1. Persons referred by a PCP should receive counseling before referral.

2. For persons who present for screening without a referral (e.g., “self-refer” to a screening center), incorporating smoking cessation counseling is encouraged.

The importance of the USPSTF

- Is a trusted, unbiased developer of evidence-based clinical preventive services recommendations
- Greatly impacts recommendations from professional organizations and (potentially) clinical practice
- **NEW:** ACA mandates first-dollar coverage for all preventive services that receive a Grade A or B recommendation from the USPSTF.

*A’s and B’s are now covered without copay!*
Medicare will now cover lung cancer screening with LDCT once per year for Medicare beneficiaries who meet all of the following criteria:

- they are age 55-77, and are either current smokers or have quit smoking within the last 15 years;
- they have a tobacco smoking history of at least 30 “pack years” (an average of one pack a day for 30 years); and
- they receive a written order from a physician or qualified non-physician practitioner that meets certain requirements.

Medicare coverage includes a visit for counseling and shared decision-making on the benefits and risks of lung cancer screening. The NCD also includes required data collection and specific coverage eligibility criteria for radiologists and radiology imaging centers, consistent with the National Lung Screening Trial protocol, U.S. Preventive Services Task Force recommendation, and multi-society multi-disciplinary stakeholder evidence-based guidelines.

- It’s the first covered service that explicitly requires shared decision making.
- The visit for counseling and shared decision making is reimbursed by CMS.

CMS – Criteria for lung cancer screening: Beneficiary eligibility

- Age 55 – 77 years
- Asymptomatic (no signs/symptoms of lung cancer)
- 30-plus pack-year smoking history
- Current smoker or quit within the last 15 years

CMS – Criteria for lung cancer screening:
Beneficiary eligibility

- **Written order for LDCT:**
  - **Initial service:** Beneficiary receives written order **during lung cancer screening and shared decision making visit** from physician or qualified non-physician.
  - **Subsequent service:** Beneficiary receives written order **during any appropriate visit** from physician or qualified non-physician.

Lung cancer screening counseling and shared decision making visit

1. Determination of beneficiary eligibility
   - Age
   - Absence of symptoms
   - “Specific calculation of cigarette smoking pack-years”
   - Number years since quit

Documented in medical record

2. Shared decision making, including:
   - Use of 1 or more decision aids, to include...
     - Benefits, harms, follow-up diagnostic testing, over-diagnosis, false positive rate, total radiation exposure

Documented in medical record

Lung cancer screening counseling and shared decision making visit

3. Counseling on importance of adherence to annual LDCT, impact of comorbidities, and ability or willingness to undergo diagnosis and treatment.

Documented in medical record

4. Counseling on importance of maintaining cigarette abstinence, or furnishing information about tobacco cessation services.

Documented in medical record

Lung cancer screening counseling and shared decision making visit

5. “If appropriate,” furnishing a written order containing the following:
   - Date of birth
   - Actual pack-year history (number)
   - Current smoking status, number years since quit
   - Statement beneficiary is asymptomatic
   - National Provider Identifier (NPI) of ordering practitioner

Radiologist eligibility criteria

- Certified by American Board of Radiology.
- Documented training in diagnostic radiology and radiation safety.
- Supervision/interpretation of 300+ chest CT acquisitions in past 3 years.
- Participation in CME in accordance with ACR standards.

Radiology imaging center criteria

- Performs LDCT with volumetric CT dose index.
- Utilizes standardized nodule identification system.
- Makes available smoking cessation interventions for current smokers.
- Collects/submits data to national registry for each LDCT lung cancer screening performed.

Medicare coverage of screening for lung cancer with low-dose computed tomography (LDCT)

Health Care Common Procedure Coding System (HCPCS) Codes

- **G0296** – Counseling visit to discuss need for lung cancer screening LDCT (service is for eligibility determination and shared decision making)

- **G0297** – LDCT for lung cancer screening


Finding ACR Designated Lung Cancer Screening Centers

https://www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilitie/Lung-Cancer-Screening-Registries.html
Screening on a national scale

- New clinical recommendations place primary care clinicians at the forefront of implementing lung cancer screening on a national scale.

- But are we ready?

- The Eisenberg Center has developed a new implementation toolkit for primary care clinicians.
Shared decision making is fundamentally a communication activity

- Shared decisions require good communication between clinicians and patients.
- Decision aids provide a structured approach to providing information about options and trade-offs, values related to options and outcomes, and can help foster deliberation.
- But, decision aids are not sufficient to ensure a high-quality shared decision making process.
Developing a new toolkit

- Provide clinicians with a concise summary of the current clinical evidence and recommendations.
- Provide a way to ensure the patient counseling and shared decision making visit is consistent with CMS beneficiary eligibility criteria.
- A high-quality patient decision aid is needed but not enough.
- Create decision support tools in multiple formats and for use in multiple ways to support deliberation between patients and clinicians.
Implementation needs of primary care clinicians

- Clarity about the guidelines/recommendations
  - Eligibility, when to start/stop
- Clarity about insurance/Medicare coverage
  - Who pays for what?
- Finding screening centers for referral
  - Where to send interested/eligible patients?
- Patient educational tools/decision aids
- Integrating screening programs with EHRs
- Training for clinic staff in implementation
- Toolkits to help with implementation

Volk et al., Preventive Medicine Reports, 2015.
Released March 2016

AHRQ: Effective Health Care Program

patient decision aids

https://www.effectivehealthcare.ahrq.gov/tools-and-resources/patient-decision-aids/
Components of lung cancer screening tools

For Primary Care Clinicians

Lung Cancer Screening: A Summary Guide for Primary Care Clinicians
- To be used by the health care professional in preparation for a shared decisionmaking visit regarding lung cancer screening with LDCT
- Provides an overview of lung cancer screening according to the recommendations from the U.S. Preventive Services Task Force on screening for lung cancer
- Reviews the new eligibility criteria for lung cancer screening with LDCT for Medicare beneficiaries and people with private health insurance
- Presents evidence about the potential benefits and harms of screening with LDCT

AHRQ Publication No. 16-EHC007-10

Lung Cancer Screening: A Clinician’s Checklist
- To be used by the health care team during and after the shared decisionmaking visit
- Provides step-by-step guidance on meeting the beneficiary eligibility requirements for lung cancer screening for people covered by Medicare
- May also be useful for smokers not covered by Medicare

AHRQ Publication No. 16-EHC007-11

Components of lung cancer screening tools

Components of lung cancer screening tools

For Patients and Their Health Care Professionals

Is Lung Cancer Screening Right for Me? A Decisionmaking Tool for You and Your Health Care Professional

- To be used by the patient and health care professional together during a visit to help guide shared decisionmaking
- Briefly summarizes the harms and benefits of lung cancer screening, important items in making a decision, and insurance coverage information

Download PDF
View HTML

AHRQ Publication No. 16-EHC007-13

Lung Cancer Screening With Low-Dose Computed Tomography (LDCT)
## Summary guide for clinicians

### Eligibility Criteria for Lung Cancer Screening

<table>
<thead>
<tr>
<th>Criteria according to:</th>
<th>USPSTF</th>
<th>CMS*</th>
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<tbody>
<tr>
<td>Relevant group:</td>
<td>Persons with private health insurance</td>
<td>Medicare beneficiaries</td>
</tr>
<tr>
<td>Age (years):</td>
<td>55–60</td>
<td>55–77</td>
</tr>
<tr>
<td>Smoking status:</td>
<td>Current or former* smoker</td>
<td></td>
</tr>
<tr>
<td>Smoking history:</td>
<td>30 pack-years*</td>
<td></td>
</tr>
<tr>
<td>Lung cancer signs:</td>
<td>Asymptomatic (no signs of lung cancer)</td>
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</tr>
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<td>Yearly</td>
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<td>The patient exceeds upper age criterion, has not smoked for more than 15 years, and/or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative surgery</td>
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* CMS requires that the beneficiary receive a written order for LDCT by a physician or nonphysician practitioner, as outlined in CMS policies for initial or subsequent LDCT lung cancer screening.

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### Insurance Coverage

Both private insurers and Medicare may offer coverage for annual LDCT screening for lung cancer among eligible high-risk individuals who meet all the eligibility criteria. (See Eligibility Criteria for Lung Cancer Screening table.) Private insurance plans and Medicare cover lung cancer screening with no out-of-pocket costs.

Follow-up diagnostic procedures and repeat imaging to evaluate an abnormal screening test may require out-of-pocket costs.

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### Points to Discuss with Your Patients

- **LDCT**: The only recommended screening approach for lung cancer.
- **Smoking**: Is not a substitute for quitting smoking. The most important way to lower the chance of dying from lung cancer is to stop smoking.
- **Staging**: If you choose to continue or start smoking, additional testing may be needed to determine a diagnosis.
- **Screening**: Is a way to lower the chance of dying from lung cancer. It is not a substitute for quitting smoking.
Summary guide for clinicians

ELIGIBILITY CRITERIA FOR LUNG CANCER SCREENING

Criteria according to: USPSTF CMS

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Age (years):

- 55–60
- 55–77

Smoking status:

- Current or Former smoker

Lung cancer signs:

- Asymptomatic (no signs of lung cancer)

Screening frequency:

- Yearly

When to stop screening:

- Patient specimen, upper age criteria

Some clinical trials that are valuable are randomized controlled trials (RCTs) and cohort studies. It is important to assess the risk of lung cancer in patients who have never smoked and who have quit smoking.

Some of the key findings from the National Lung Screening Trial (NLST) are:

- LDCT scans compared with chest x-rays in reducing deaths from lung cancer per 1,000 people screened:
  - Deaths from lung cancer over 6.5-year followup period:
    - LDCT: 18 in 1,000
    - Chest x-ray: 21 in 1,000
  - Deaths from all causes over 6.5-year followup period:
    - LDCT: 70 in 1,000
    - Chest x-ray: 75 in 1,000

Of 1,000 people screened:

- 150 with stage IA lung cancer (about 14%)

Of those with stage IA lung cancer:

- 130 with stage IA lung cancer (100%)

Of those with stage IA lung cancer:

- 120 with stage IA lung cancer (about 120%)

About the NLST: More than 50,000 smokers participated; participants had to have three annual screenings; average followup was 6.5 years.


### Eligibility Criteria for Lung Cancer Screening

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<td>Relevant group:</td>
<td>Person with private health insurance</td>
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<td>Age (years):</td>
<td>55–80</td>
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### Summary Guide for Clinicians

#### Benefits: How much can lung cancer screening reduce deaths from lung cancer over a 5-year follow-up period?

- **DEATHS FROM LUNG CANCER OVER A 5-YEAR FOLLOW-UP PERIOD**
  - Deaths from lung cancer over a 5-year follow-up period.

- **Deaths from causes other than lung cancer over a 5-year follow-up period**
  - Deaths from causes other than lung cancer over a 5-year follow-up period.

#### Harms: What are the harms of screening for lung cancer with LDCT?

<table>
<thead>
<tr>
<th>Of 1,000 people screened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (abnormal results)</td>
</tr>
<tr>
<td>False positives (&quot;false alarms&quot;)</td>
</tr>
<tr>
<td>Invasive diagnostic procedures (among people with a false positive result)</td>
</tr>
<tr>
<td>Major complications from invasive diagnostic procedures (e.g., infection, bleeding in lung, collapsed lung)</td>
</tr>
<tr>
<td>Overdiagnosis (diagnosed lung cancer that never would have progressed to cause the patient harm)</td>
</tr>
<tr>
<td>Radiation exposure (from screening and diagnostic imaging, including cumulative exposure)</td>
</tr>
<tr>
<td>Comparisons of radiation exposure with a single LDCT scan:</td>
</tr>
<tr>
<td>Air travel, 10 hours</td>
</tr>
<tr>
<td>Chest x-ray</td>
</tr>
<tr>
<td>LDCT scan</td>
</tr>
<tr>
<td>Diagnostic CT</td>
</tr>
</tbody>
</table>

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*CMS = Centers for Medicare & Medicaid Services; USPSTF = U.S. Preventive Services Task Force

*CMS policies for Medicare are written for Medicare beneficiaries who do not have dual coverage (i.e., Medicare and private insurance). Currently, Medicare pays for screening colonoscopy, but not for chest x-rays, lung cancer screening in asymptomatic adults, or screening mammograms for breast cancer screening.

*Number of pack-years = (average number of packs smoked per day) × (years smoked) × 0.5

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#### Points to Discuss with Your Patient:

- **LDCT Screening:**
  - The most recommended screening approach for lung cancer.
  - Screening is not a substitute for quitting smoking. The most important way to lower the chance of dying from lung cancer is to stop smoking.
  - Smoking should be done early until the patient no longer needs to smoke or no longer meets the screening criteria.

- **CT Scan:**
  - An LDCT scan does not necessarily mean cancer.
  - Additional testing may be needed to determine a diagnosis.

- **Medicare Coverage:**
  - Medicare covers LDCT screening for patients who meet certain criteria.

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*Disclaimer: The information provided is for educational purposes only and should not be used as a substitute for professional medical advice. Always consult a healthcare provider for medical advice related to your specific situation.*
Summary guide for clinicians
Lung Cancer Screening: A Clinician’s Checklist

Before...
The Clinical Encounter
Determine patient’s eligibility.
This checklist may be completed with the assistance of a nurse, physician assistant, or other medical assistant.

- Is the patient 55 to 77 years old? (55 to 80 years old for patients with private insurance)?
  - Yes
  - No

- Is the patient a current smoker or former smoker who has quit within the past 15 years?
  - Yes
  - No

- Does the patient have at least a 30 pack-year smoking history? (See the calculator below.)
  - Yes
  - No

- Is the patient asymptomatic for lung cancer with no personal history of lung cancer?
  - Yes
  - No

- Is the patient healthy enough to have lung surgery?
  - Yes
  - No

- Is the patient willing to receive potentially curative treatment?
  - Yes
  - No

During...
The Clinical Encounter
Complete all of the following activities.

- Documented all elements in the patient’s medical chart.
- Used a decision aid
- Discussed potential benefits of lung cancer screening:
  - Reduced mortality from lung cancer
  - False-positive results
  - Follow-up testing if an abnormality is found
  - Total radiation exposure (screening and diagnostic testing, cumulative)
- Discussed potential harms of lung cancer screening, including:
  - Overdiagnosis
  - False-negative results
- Discussed other issues:
  - The impact of comorbidities on screening (the benefit of screening is reduced in patients with poor health)
  - The patient's ability or willingness to undergo invasive diagnostic procedures and treatment

- Counseled about:
  - The importance of adherence to annual lung cancer screening
  - The importance of maintaining cigarette smoking abstinence or smoking cessation, as applicable
  - Tobacco cessation interventions (provided information, if appropriate)

Calculate Pack-Years
(20 cigarettes = 1 pack)

Number of years smoked
Average number of packs smoked per day

Pack-years

After...
The Clinical Encounter
Establish the next steps.
If the patient would like screening, provide a written order for the lung cancer screening visit with the following elements:
- Patient’s date of birth
- Actual pack-year smoking history
- Current smoking status; for former smokers, the number of years since quitting
- Statement that the patient is asymptomatic
- National Provider Identifier (NPI) of the ordering practitioner

If the patient declines screening, document the discussion and the patient’s decision in his or her medical record.

If the patient is unsure about screening or wants more time, consider scheduling a follow-up visit to discuss the patient’s screening decision.

For all patients, reinforce the importance of smoking cessation and abstinence.
A clinician’s checklist

The importance of shared decisionmaking

Lung cancer screening with low-dose computed tomography (LDCT) reduces mortality from lung cancer. There are also potential harms associated with lung cancer screening, including a high-false positive rate and the associated need for diagnostic followup, known and unknown risks of additional testing associated with incidental findings, cumulative radiation exposure, and overdiagnosis. Shared decisionmaking is a collaborative patient-centered process in which patients and clinicians make decisions together, within the context of the best evidence and recommendations and based on the patient’s values and preferences.

Tips To Promote a Shared Decision

Below is a five-step process for shared decisionmaking that includes exploring and comparing the possible benefits and harms of each option through meaningful dialogue about what matters most to the patient.

STEP 1: Seek your patient’s participation in the decisionmaking process.

STEP 2: Help your patient explore and compare the potential benefits and harms of lung cancer screening, and assess your patient’s level of understanding. (See the teach-back examples in the box to the far right.)

STEP 3: Assess your patient’s values and preferences about lung cancer screening.

STEP 4: Reach a decision about lung cancer screening with your patient.

STEP 5: Evaluate your patient’s feelings about the decision by having a followup discussion.

Tips for a Shared Decision

Choose a screening method.

Consider lung cancer screening.

Discuss the potential benefits and harms.

Discuss the options for lung cancer screening.

Discuss the options for followup.

Consider the patient’s values and preferences.

Discuss the decision.

Evaluate the patient’s feelings about the decision.

Teaching Points

Below are specific points to address during the clinical encounter.

- Lung cancer screening can be effective if patients 1. follow the screening protocol, 2. undergo diagnostic followup procedures after a positive screening result, and 3. receive treatment, which has potential harms.
- Smoking does not mean that smoking is OK. Smoking still causes lung cancer, cardiovascular disease, and other lung disease.
- Smoking can lead to early treatment that can prevent some, but not all, lung cancer deaths.
- False-positive results (“false alarms”) are common, and additional scans or invasive procedures may be needed. Less commonly, major complications of invasive procedures can occur, including bleeding, infection, or a collapsed lung.
- Lung cancer screening may find lung cancer that would not have ever caused symptoms or harmed the patient in his or her lifetime if the cancer had not been found. This could lead to treatment of people who do not really need treatment.
- Screening and followup testing exposes patients to radiation. The harms associated with cumulative radiation exposure are unknown.
- Screening should stop if the patient 1) exceeds the upper age criteria, 2) no longer wants screening, or 3) has a worsening health condition that limits their life expectancy or increases the risk of complications from lung surgery, or 4) has not smoked for 15 years.

Ordering Information

Lung Cancer Screening with Low-Dose Computed Tomography (LDCT): Tools for Primary Care Clinicians, is a free multicomponent resource to support decisionmaking about lung cancer screening in the primary care setting. For electronic copies of this multicomponent resource, visit www.effectivehealthcare.ahrq.gov/LCS/

Teach-Back Examples

“”I know I have given you a lot of information. Tell me in your own words what you have heard.”

“What are your thoughts about lung cancer screening?”

“Let’s stop right there for a moment. What questions or comments do you have about the information I have given you?”

Referral Information

To find a radiology imaging facility that meets the CMS eligibility criteria, please visit:

www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilities/Lung-Cancer-Screening-Registries.html
A decision aid for patients

Is Lung Cancer Screening Right for Me?

A decision aid for people who may benefit from screening (LDCT) for lung cancer is shown below. The decision aid asks you to think about whether lung cancer screening would be appropriate for you.


decision aid for patients

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

BENEFIT: Greater chance of detecting early lung cancer

- If 1,000 people are screened with LDCT for lung cancer, 21 will die from lung cancer.
- If 1,000 people are screened with LDCT for lung cancer, 21 will die from lung cancer.

This means that with LDCT screening, 21 fewer people will die from lung cancer.

HARM: False positive and additional testing

- False positive results occur when a person has a positive screening test but does not actually have lung cancer.
- False positive results occur when a person has a positive screening test but does not actually have lung cancer.

Calculating post-test probability of lung cancer

- Probability of lung cancer after a negative screening test is 0.1%
- Probability of lung cancer after a negative screening test is 0.1%

What is lung cancer screening with lung cancer screening with LDCT for lung cancer

- Lung cancer screening may find a lung cancer that would not be found by the health care professional, and it may be too late to treat the disease.
- Lung cancer screening may find a lung cancer that would not be found by the health care professional, and it may be too late to treat the disease.

What is the difference between screening and diagnostic testing?

Screening is a medical test for finding an abnormality of lung cancer screening is done to find lung cancer before it has spread.

Differential testing is not the same as screening. Diagnostic testing for lung cancer is done to find lung cancer before it has spread.

Comparing sources of radiation

- CT scans use more radiation than chest x-rays and ultrasound.
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Comparing sources of radiation

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- CT scans use more radiation than chest x-rays and ultrasound.

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

BENEFIT: Greater chance of detecting early lung cancer

- If 1,000 people are screened with LDCT for lung cancer, 21 will die from lung cancer.
- If 1,000 people are screened with LDCT for lung cancer, 21 will die from lung cancer.

This means that with LDCT screening, 21 fewer people will die from lung cancer.

HARM: False positive and additional testing

- False positive results occur when a person has a positive screening test but does not actually have lung cancer.
- False positive results occur when a person has a positive screening test but does not actually have lung cancer.

Comparing sources of radiation

- CT scans use more radiation than chest x-rays and ultrasound.
- CT scans use more radiation than chest x-rays and ultrasound.

What is the difference between screening and diagnostic testing?

Screening is a medical test for finding an abnormality of lung cancer screening is done to find lung cancer before it has spread.

Differential testing is not the same as screening. Diagnostic testing for lung cancer is done to find lung cancer before it has spread.

Comparing sources of radiation

- CT scans use more radiation than chest x-rays and ultrasound.
- CT scans use more radiation than chest x-rays and ultrasound.
A decision aid for patients

Possible signs and symptoms of lung cancer

» A new cough that does not go away or gets worse
» Chest pain that is often worse when you breathe deeply, cough, or laugh
» A hoarse voice
» Unexplained weight loss and loss of appetite
» Coughing up blood or rust-colored spit or phlegm
» Shortness of breath
» Infections such as bronchitis and pneumonia that do not go away or keep coming back
» Wheezing

Many patients with lung cancer do not have any symptoms when the cancer first starts. It is best to find lung cancer early before symptoms start, when the cancer is more easily treated. This is why screening is important.

If you have any signs or symptoms of lung cancer, be sure to tell your healthcare professional.
A decision aid for patients

Is Lung Cancer Screening Right for Me?

What are the facts about lung cancer?
- Lung cancer is the leading cause of cancer deaths in the United States each year, with about 200,000 people diagnosed with lung cancer and 150,000 people dying from lung cancer.
- About half of the people diagnosed with lung cancer are 70 years of age or older. The typical age of death from lung cancer is 75 years.

Who should be screened for lung cancer?
- The U.S. Preventive Services Task Force (USPSTF) makes up of experts in preventive medicine. Although they receive the current research to make recommendations about clinical preventive services such as screening, treatment, and preventive medications.
- The USPSTF recommends lung cancer screening for individuals who:
  - Are 55 to 80 years old
  - Do not have any signs or symptoms of lung cancer (such as coughing or shortness of breath)
  - Have never smoked or quit less than 15 years ago
  - Have at least a heavy smoking (20 pack-years history or more) who smoked 1 pack per day for 20 years or 2 packs per day for 10 years
- The USPSTF does not recommend lung cancer screening for individuals who:
  - Are 55 to 74 years old and do not fit the above criteria
  - Are not willing to have surgery for lung cancer

Possible signs and symptoms of lung cancer:
- A new cough that gets worse
- Chest pain that is deep and not relieved by sleeping
- A hoarse voice
- Unexplained weight loss
- Coughing up blood or phlegm
- Shortness of breath
- Infections such as pneumonia that do not go away

Remember, the best way to lower your chances of dying from lung cancer is to stop smoking.
- More than 8 out of every 10 lung cancer cases in the United States are from smoking.

Lung cancer screening should not be done instead of quitting 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).

WHAT IS YOUR DECISION ABOUT LUNG CANCER SCREENING?
- Screening is right for me.
- Screening is not right for me.
- I am unsure about screening.
A decision aid for patients

Out of 1,000 people screened with LDCT for lung cancer:
- 3 lung cancer deaths will be prevented.
- 18 people will die of lung cancer.

Out of 1,000 people not screened with LDCT for lung cancer:
- 21 people will die of lung cancer.

Possible
- A new cough gets worse
- Chest pain or breathe deeply
- A hoarse voice
- Unexplained
- Coughing up blood or phlegm
- Shortness of breath
- Infections that do not improve
- Wheezing

356 people will get a “false alarm.”
18 of the people who 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.
A decision aid for patients

**Comparing Sources of Radiation**

- **Air Travel (10 hours)**: 0.04 mSv
- **Chest X-Ray**: 0.1 mSv
- **Mammogram**: 0.4 mSv
- **LDCT for Lung Cancer Screening**: 1.4 mSv
- **Average Background Radiation (U.S., 1 Year)**: 3 to 5 mSv
- **Diagnostic CT**: 7 mSv

mSv = millisievert, a measure of the amount of radiation absorbed by the body.

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*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.*
A decision aid for patients

**What is important to you when deciding about screening for lung cancer?**

There are many things to think about when deciding whether lung cancer screening is right for you. Below is a list of questions that may help you decide.

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

**AIR TRAVEL 10 HOURS**

**CHEST X-RAY**

**MAMMOGRAM**

**LDCT FOR LUNG CANCER SCREENING**

**AVG BACKGROUND RADIATION (U.S., 1 YEAR)**

**DIAGNOSTIC CT**

$mSV = $millisievert, a measure of the amount of radiation absorbed by the body.

18 of the people who 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.”
A decision aid for patients

There are many things to think about when deciding whether lung cancer screening is right for you. Below is a list of questions that may help you decide.

**TALKING WITH YOUR HEALTH CARE PROFESSIONAL ABOUT LUNG CANCER SCREENING**

Making the decision to be screened for lung cancer is a personal decision. You should talk with your health care professional and make the decision based on what is right for you.

Below are some questions to think about at your visit with your health care professional. Keep in mind the possible benefits and harms that are most important to you.

- Am I eligible for lung cancer screening?
- What happens if I decide not to be screened for lung cancer?
- Does my insurance cover lung cancer screening?
- Where should I go for lung cancer screening?
- Do I have to do anything to prepare for screening?
- How soon will I know the results of screening?
- What happens if the lung cancer screening shows something of concern?
A decision making tool for the clinical encounter
Communication strategies with patients

1. Provide clear information
   - Risks and benefits of lung cancer screening (see Checklist Talking Points)
   - Use everyday language, pictures, graphs, example, analogies, stories (communicating ‘gist’)
   - How do you know your message is clear? Check for patient understanding.
   - Examples:
     - “I know you’ve gotten a lot of information. What stands out as particularly important to you?”
     - “So we’ve talked about possible harms of LCS. What do you think about those risks?”
Communication strategies with patients

- **Remember:**
  - Information has no meaning until someone tries to make sense of it.
  - There is no one way to provide clear information; the key is to provide information in a way the patient can understand it.
  - It is important to check for patient understanding.
2. Elicit/validate a patient’s beliefs, concerns, and preferences (or values)

- Ask what a patient thinks about lung cancer screening by exploring beliefs, concerns, and preferences (or values).
- But remember:
  - Concerns and preferences are not misinformed; they are grounded in a reality that is coherent, rational, and meaningful to the patient.
  - Try to connect clinical evidence to a patient’s values, preferences, and emotions.
Communication strategies with patients

Example

- **Pt:** “Well if lung cancer screening can save my life, then that sounds good.”
- **Dr:** “That’s right, it could save your life. But remember, the research indicates that out of 1,000 people screened, 3 lives will be saved but 18 still died. And about 350 will have a false alarm, and some of these patients will have additional tests that can lead to complications.”

“So what do you think when you compare the numbers of lives saved with false alarms?”
Communication strategies with patients

3. Try to reach mutual understanding and agreement
   ▪ Check your understanding of the patient’s perspective.
     • “So what you’re saying is if there is at least some chance to save your life, you want to do it even if the odds of a false alarm are much greater?”
     • “Let me see if I got this right. You think the likelihood this could save your life is quite small, and you really worried about what would happen with a false positive?”

   ▪ Check the patient’s understanding of what you have shared with the patient, including any concerns you have.
     • “So you know what I’m concerned about?”
Communication strategies with patients

- Strive for common ground on best course of action.
- Mutually acknowledge the action to be taken.
  - “Ok, we will schedule the screening sometime next week. So take this to the desk and they will set you up for the appointment.”
  - “So right now we are just going to wait. And we can revisit the possibility of lung cancer screening at your next appointment. Are we on the same page with that?”
The patient has a knowledge about LCS or has received the decision aid before the consultation

• First, ask patient about his or her thoughts about LCS.
  • This lets the clinician know what the patient understands and what their initial preferences are and why.
  • If a patient has used the aid, but say he/she is not sure what to think about it, then follow with a probe (“Well just tell me some of your thoughts about it.”)

• Fill in knowledge gaps and explore preferences/concerns.

The patient has no or very limited knowledge of LCS

• Use the decision-making tool in the encounter to educate, identify concerns, and discuss preferences.
In conclusion: How might the lung cancer screening tools be used?

- Adapt the tools for a variety of primary care settings.
- Integrate the tools with electronic health records (Clinician’s Checklist).
- Adapt the tools for different patient populations.
- Couple the tools with clinician training in shared decision making.
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- Select “Send” to submit your question to the moderator.
- Questions will be read aloud by the moderator.
- SHARE@ahrq.hhs.gov
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