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"Building Bridges to Better Healthcare"

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THE ECONOMIC ALLIANCE FOR MICHIGAN

EMPLOYER ACTION BRIEF

Promoting Lung Cancer Screening in the Workplace

What You'll Learn Inside:

- What is Lung Cancer?
- What are the Current Recommendations for Lung Cancer Screenings?
- What is the screening process?
- What are the costs and benefits of screening?
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Did you know that there are national recommendations for screening high-risk individuals for lung cancer? In this Action Brief we'll tell you what the recommendations are, why they are important, and what you can do to promote lung cancer screening for your population.

What is Lung Cancer?

Lung cancer is the second most common form of cancer and the leading cause of cancer death in both men and women in the United States. In 2020 alone, it's estimated that 72,500 men and 63,220 women will die from this disease.[1]

There are two main types of lung cancer: Non-small cell lung cancer (NSCLC), which is the most common, and small-cell lung cancer (SCLC). The risk of lung cancer increases with age and cumulative exposure to tobacco smoke, but it decreases with prolonged smoking cessation of at least 15 years. Lung cancer may also develop due to family history, exposure to secondhand smoke and occupational carcinogens like asbestos, but smoking is the most prevalent identifiable risk factor. Early symptoms of lung cancer include persistent cough, persistent chest pain that gets worse with deep breathing or laughing, and coughing up blood. Once the tumor spreads, patients can experience bone pain and liver dysfunction. Unfortunately, lung cancer has a low five-year survival rate of approximately 19% because it's more commonly detected in symptomatic patients, and most symptoms do not emerge until the cancer has advanced.[2] Delayed diagnoses also occur because even when lung cancer symptoms are present, people can mistake them for other infections or smoking-related illnesses.

What are the Current Recommendations for Lung Cancer Screenings?

The United States Preventive Services Task Force (USPSTF) recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in persons who meet all of the following criteria:

- Adults ages 55 to 80 years
- ≥ 30 pack-year smoking history
- Currently smoke, or have quit within the past 15 years

Per the USPSTF recommendation, "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."[3] A pending update to the recommendation, expected for 2021, lowers the screening initiation age to 50, and the pack-year smoking history to ≥20 pack years.

The recommendation currently has a "B" grade which means there is strong evidence of moderate to substantial benefit. Per the Affordable Care Act (ACA), health plans must cover A and B grade services with no cost sharing.

The USPSTF also recommends that smoking cessation be offered alongside lung cancer screening since smoking remains the most significant risk factor for lung cancer. As of 2018, current cigarette smoking is highest among people aged 25-64,[5] and accounts for about 80% of lung cancer cases. Since smoking is the leading cause of preventable death, smoking cessation not only lowers the risk of lung cancer, but many other illnesses. Ultimately, the goal of lung cancer screening is not only to diagnose and treat early lung cancer, but to help patients live longer and healthier lives.

Source: Centers for Disease Control & Prevention

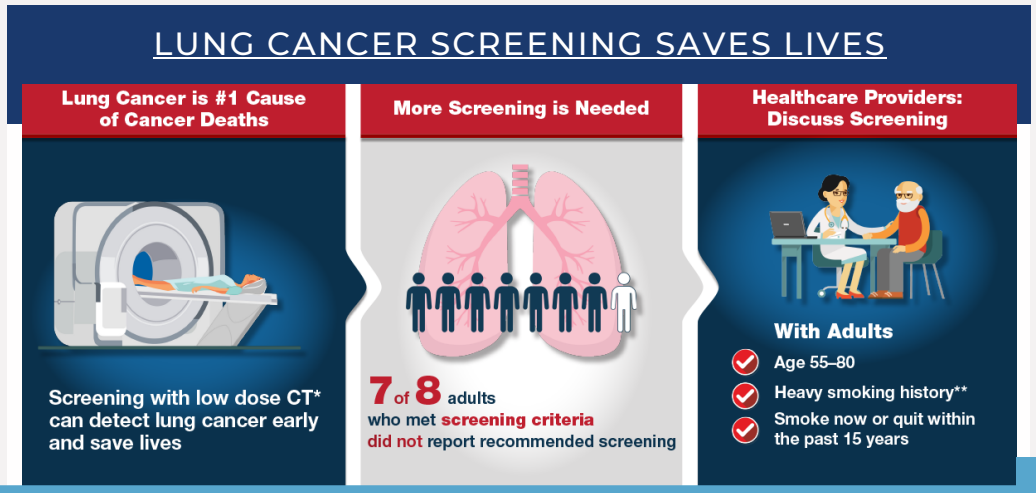
What is the rationale for the recommendation?

Lung cancer is most often diagnosed among people ages 65–74 which is when the highest percentage of deaths occur, but approximately 29.5% of new cases develop among people under age 65.[4] Lung cancer has a higher survival rate and more treatment options if it is detected at an earlier stage when the tumor is small and has not spread. However, it is important to know that survival rates and treatment options depend on the specific type of lung cancer.

What is the screening process?

Prior to the screening, a patient will meet with their doctor for a shared decision-making conversation to discuss the patient-specific risks and benefits of screening and to confirm the decision to undergo screening.

LDCT is the only recommended screening test for lung cancer. The lung cancer screening process is a simple, preventive health check-up that takes less than 10 minutes and requires no preparation. Radiation exposure from LDCT is approximately 20% of radiation exposure for a typical CT scan. During the scan, the LDCT diagnostic tool will take a 3-D picture of the lungs which can detect early-stage lung cancer in asymptomatic patients and other abnormalities such as emphysema and hardening of the arteries. A specialist will review the images, and if abnormalities are present, they will proceed with follow-up tests. For negative results, patients can continue with annual LDCT screenings and smoking cessation interventions.



What are the costs and benefits of screening?

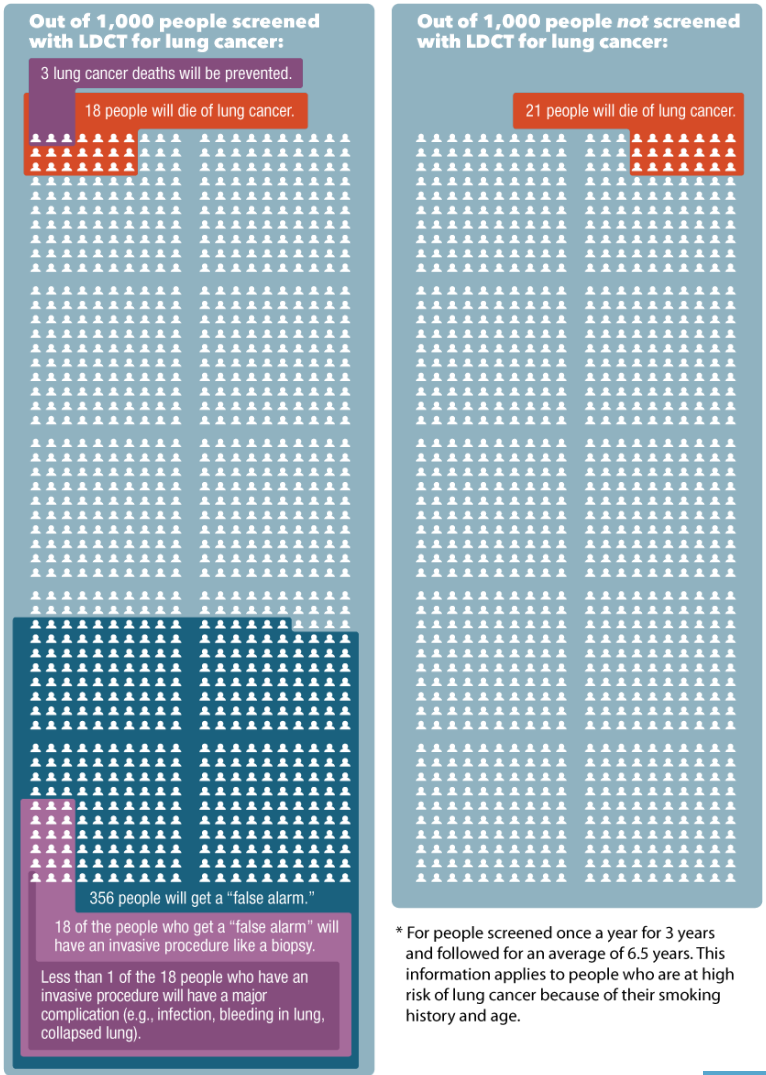
The average cost of a single LDCT screening is in the $300 to $400 range. Current studies suggest that repeat annual lung cancer screenings in high-risk patients along with concurrent smoking cessation interventions is highly cost-effective, especially for commercial insurers. Following the National Lung Screening Trial, it was determined that the cost per additional quality-adjusted life-year, (QALY) was about $80,000.[6] An analysis that solely examined the working-age population found that the cost per QALY was $28,000 which is highly competitive with cost-effectiveness of other common preventive screenings such as breast and colorectal cancer screenings.[7] Usually an acceptable threshold is anywhere below $100,000/QALY in studies conducted in the United States. Routine lung cancer screenings are more cost-effective for females, patients between the ages 60-69, and current smokers.[7] A 2012 Milliman actuarial analysis estimated the cost of lung cancer screenings for insured employees would be about $1 per month.[8]

Research found 70% of patients who received a LDCT screening were diagnosed with lung cancer in the early stage and the mortality rate for high risk patients was reduced by 20%.

Potential risks of screenings include false positives/unnecessary follow up, over-diagnosis, psychological distress, and radiation exposure risks. Some efforts to mitigate these risks include the implementation of a standardized Lung CT Screening Reporting and Data System, known as Lung-RADS, which has reduced the average false-positive rate to 10.4%.[9] This reduction has led to a decrease in unnecessary follow-up tests, and better screening experiences. Research has shown that radiation from consecutive LDCT screenings can independently be cancerous, which is why lung cancer screenings are only recommended for a limited high-risk population.

What are the current screening rates in the United States?

Despite the recommendations and strong evidence of benefits of screening, estimates of current screening rates in the eligible population in the United States range from 5.7%[10] to 16.3%.[11] These rates are significantly lower than screening rates for other cancers. For example, the breast cancer (mammography) screening rate is 72.8%[12] and the colorectal cancer screening rate is 67.3%.[13] These low screening rates for lung cancer screening are particularly concerning since lung cancer accounts for 24% of all cancer deaths in the U.S., and is the leading cause of cancer death.[14] Currently, nearly 60% of lung cancers are identified in a late stage with metastases, with a 5-year survival of just 5.8%; the 5-year survival rate for localized cancers identified in an early stage is 59%.[15] Therefore, efforts to increase lung cancer screening rates in the eligible population are crucial!



How can employers help their employees?

Given that lung cancer screening is beneficial, employers should be actively promoting this for the recommended at-risk population. Here are seven suggestions on how you can promote screening:

1. Provide educational materials on lung cancer risks and availability of screening from resources included below
2. Deliver annual reminders of the preventive services that are covered under the provided healthcare plan with no cost-sharing, and consider targeting reminders when individuals reach screening-eligibility age (e.g., birthday cards)
3. Utilize newsletters and social media platforms to promote smoking cessation and lung cancer screening
4. Identify providers in your network offering same-day appointments, or reduced wait times
5. Support paid time off for lung cancer screening and other preventative health examinations
6. Support smoking cessation through identifying current and former smokers (e.g. through health risk appraisals or health fairs), providing education on smoking risks and available cessation resources, crafting incentives that discourage smoking and promote cessation, and making cessation resources available at no out-of-pocket cost
7. Ask your health plan(s) to report annual lung cancer screening rates for your population (and how they identify and act on behalf of the at-risk population)

Finally, remember that the whole point of early detection is early initiation of treatment, so work with health plans and provider organizations to ensure that abnormal results are followed up promptly.

Resources for Employee Education:

- Lung cancer awareness, screening & education (Includes resources for employers, providers and patients) – ThinkScreenKnow.org
- Search for an LDCT center near you – GO2Foundation.org
- Patient checklist to determine screening eligibility – https://effectivehealthcare.ahrq.gov/decision-aids/lung-cancer-screening/patient.html
- Lung cancer screening knowledge quiz – cdc.gov/cancer/lung/quiz/
- Smoking Cessation programs – smokefree.gov

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)

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The Greater Philadelphia Business Coalition on Health (GPBCH) seeks to increase the value of health benefit spending for its employer members, by improving workforce and community health, increasing healthcare quality and safety, and reducing health care costs. The Coalition represents employer interests in working with health plans, health care providers, benefits consultants, suppliers and other system stakeholders to address population health priorities and to ensure that when health care is needed it is accessible, affordable, high-quality, and safe.

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