

The webinar ***The Who-What-When-Where-Why of Lung Cancer Screening*** aired on March 25, 2020. The only recommended screening test for lung cancer is low-dose CT scan. Screening with low-dose spiral CT scans has been shown to decrease the risk of dying from lung cancer in heavy smokers. The webinar gave an overview of who is eligible for lung cancer screening and what the data is telling us about its potential impact on lung cancer.

The webinar further explored the topics of appropriate patient selection and education, tobacco consultations, shared decision making, imaging techniques, management of findings, communication of results, and the roles of nurse navigators and coordinators.

This document summarizes key takeaways and resources from the webinar, which is available at <https://youtu.be/1bGM4o2DQel>

This was the first in a three-part Spring 2020 webinar series on lung cancer hosted by the *American Cancer Society Comprehensive Cancer Control (ACS CCC)* team. The ACS CCC team seeks to build the capacity of grant recipients in the *Centers for Disease Control and Prevention National Comprehensive Cancer Control Program* to implement policy, systems, and environmental change approaches and evidence-based promising practices in cancer prevention, screening, diagnostic follow-up, and survivorship.

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Lung cancer is the largest cancer killer in both men and women in the United States. Each year, about 200,000 people are diagnosed with lung cancer, and 150,000 people die. Cigarette smoking is linked to 80% to 90% of lung cancers and is the #1 cause of lung cancer. About 8 million U.S. people are eligible for lung cancer screening.

National Lung Screening Trial

- Eight years duration, > 50,000 subjects randomized to low-dose CT vs. chest x-ray
- Ages 55-74 years, 30 pack-year smokers, current or quit in the past 15 years
- 20% reduction in lung cancer mortality
- 6.9% reduction in all-cause mortality
- Screen 320 individuals to save 1 person from lung cancer death (later < 320)
- Nelson trial and MILD trial supported the findings of the NLST.

USPSTF 2013 Recommendation

- The recommendation was foundational.
- Ages 55-80 with 30 pack-year history and current or quit in the past 15 years
- No screening after 15 years cessation
- Comorbidities must be considered.
- CMS (2015) and NCCN (2012) also publish similar guidelines.

Tobacco Consultations

- Are a key element of screening programs because they are teachable moments and increase cessation
- Make screening more cost-effective
- Reduce other leading causes of death such as CVD and COPD

Shared Decision Making

- Required by CMS for coverage
- Includes patient values and preferences as well as scientific and medical evidence
- Helps patients to understand screening is a process and not a “one and done” event
- Informs patients about statistical norms, rates, false positives, technology, options, and follow-ups

Imaging Techniques

- LDCT Low Dose Computed Tomography
- Chest x-rays are not preferred because three large 1970s trials found no mortality reduction benefit from x-rays.
- Follow-ups for small nodules use LDCT.
- Low-dose protocols are widely available.
- Less radiation is used for smaller patients.

Management of Findings

- Interpretation is important.
- CMS coverage requires the ACR registry, which requires the use of LungRADS 1.1.
- ACR LungRADS 1.1 (2019) is a reporting and management tool for nodules.
- Managing high-risk screenings (4B/4x) involves radiology, pulmonary medicine, thoracic surgery, and oncology.

- Negative scans do not imply freedom from cancer; later scans can be positive.

Communication of Results

- Results go to the referring physician.
- Now patients are being included via letters or health system portals.
- Facilitates shared decision making
- Keeps everyone informed
- ACR registry collects data for analysis and better management protocols.
- ACR registry collects demographics, screening results, smoking status, referring providers, etc.
- ACR registry produces reports for providers.

Role of Nurse Navigators

- Navigators are the most important part of any screening program.
- They screen patients for eligibility, make appointments, do follow-ups, issue reminders, make registry entries, educate, research, and build relationships.
- Navigators increase screening rates and follow-up rates (including patients with negative scans).
- Relationship building is critical to keep patients in the screening program.

Online Resources

- *National Radiology Data Registry* (American College of Radiology) <https://nrdr.acr.org/Portal/LCSR/Main/page.aspx>
- *LungRADs* (American College of Radiology) <https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Lung-Rads>
- *Whitepaper on Incidental Cardiothoracic Findings November 2018* (American College of Radiology) <https://www.ncbi.nlm.nih.gov/pubmed/29941240>
- National Comprehensive Cancer Network <https://nccn.org>
- *Lung Cancer Atlas* (National Lung Cancer Roundtable) <https://nlcrt.org/atlas>