Advancing Your Lung Cancer Screening Program with Lung-RADS® and the Lung Cancer Screening Registry

How Does Your Lung Cancer Screening Program Measure Up?
August 9, 2023
Speakers and Panelists

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Speakers and Panelists

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Disclosures

• None
Attendee Zoom Interface

- Type a comment/question in Q&A (only seen by organizers)
- Type a comment in the chat (only seen by organizers)
- Questions and comments can be entered in the Q&A field
Advancing Your Lung Cancer Screening Program Webinar Series

This webinar is second in a series that will continue through August 2023:

- July 26 | ACR Lung-RADS® v2022: An Update on Lung Cancer Screening Reporting and Management
  - View the recording at https://nrdrsupport.acr.org/support/solutions/articles/11000114747-advance-your-lung-cancer-screening-program-webinar-series

- Aug. 9 | How Does Your Lung Cancer Screening Program Measure Up?

- Aug. 23, 12-1pm ET | An Approach to Structured Performance Improvement Using Your Lung Cancer Screening Registry Data

- This webinar will be recorded and distributed afterwards.
Webinar Agenda

1. LCSR Overview
2. New LCSR Interface
3. Clinical Lead User Role
4. New and Existing LCSR Measures
   a. Adherence to Screening
   b. Appropriate Radiation Dose
   c. Increasing Smoking Cessation
5. Updates to the Facility Comparisons Report dashboards
6. Facility Comparisons Report Training Videos
7. LCS Locator Tool
8. Opportunities for Engagement
9. Q&A
10. Wrap-up
    a. CME credit claiming instructions
Lung Cancer Screening Registry Overview

Purpose

• Help clinicians monitor and demonstrate the quality of CT lung cancer screening in their practice through periodic reports which include peer and registry benchmarks
  • Advance lung cancer screening practice
  • Target specific areas for improvement
  • Implement performance improvement programs
  • Improve and refine lung cancer screening care nationally
Updated LCSR Interface

Out With the Old
Clinical Lead User Role

- Clinical Lead profile may be assigned to NRDR users for one or more registries.
- Designed to encourage engagement in the registry by radiologists and clinical leaders at the facility level.
- Enables NRDR staff to keep key personnel up to date about changes of clinical relevance related to the registry:
  - Registry-specific webinar announcements
  - Communications about new measures and reports
  - New materials supporting quality improvement
- Able to access aggregate reports but cannot view clinical exam-level data:
  - LCSR Quarterly Aggregate Report
  - LCSR Facilities Comparison Report (excluding Adherence and PI Analysis tabs)

NRDR Accounts and Profiles: https://nrdrsupport.acr.org/support/solutions/articles/11000029005-nrdr-accounts-and-profiles
Clinical Lead User Role

How to add a Clinical Lead User

1. Manage User Profiles:
   ACR NRDR Homepage
   New Corporate Account Registration
   Corporate Account Management Financial
   Corporate Account Management Operational
   Facility Management
   Documents
   Facility Information
   Manage Patients
   Manage User Accounts
   Manage User Profiles

2. Manage User Profiles:

3. Manage User Profiles:
   https://nrdrsupport.acr.org/support/solutions/articles/11000032092
Adherence to Screening

Goals

- Ensure eligible patients are screened for lung cancer and screening meets USPSTF 2021 recommendations
- Increase the number of patients who return for annual screening (11 to 15 months) when previous exam was Lung-RADS 1 or 2 and
- Increase the number of patients who return for recommended follow up for Lung-RADS 3 (4-8 months) and 4a (0-18 weeks)

Rationale

- Improving adherence will identify lung cancer at an earlier stage and improve outcomes
  - Mortality benefit associated with LCS requires high adherence to follow-up
  - Nearly 60% of lung cancers in the NLST intervention group were detected after the 2nd and 3rd rounds of screening
  - Adherence rate is lower in clinical practice with a meta-analysis showing 55% adherence with rates varying between 12% and 91%
Adherence to Screening LCSR Measures

Existing
- Appropriateness of screening by USPSTF 2021 criteria

New in 2022-2023
- Adherence to annual screening
- First-time screening
- Adherence to recommended follow up
  - Coming later in August 2023

Reports
- Included in both the interactive LCSR Facility Comparisons Report and the Quarterly Aggregate Report.
# First-Time Screening

## Facility Peer Comparisons Report

<table>
<thead>
<tr>
<th>Measurement Name</th>
<th>Num.</th>
<th>Den.</th>
<th>Facility Performance</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-time screening</td>
<td>77</td>
<td>154</td>
<td>50.0 %</td>
<td></td>
</tr>
<tr>
<td>Appropriateness of screening by USPSTF criteria: 2013 Guidelines</td>
<td>118</td>
<td>154</td>
<td>76.6 %</td>
<td></td>
</tr>
<tr>
<td>Appropriateness of screening by USPSTF criteria: 2021 Guidelines</td>
<td>150</td>
<td>154</td>
<td>97.4 %</td>
<td></td>
</tr>
<tr>
<td>Smoking cessation counseling offered</td>
<td>2</td>
<td>154</td>
<td>1.3 %</td>
<td></td>
</tr>
<tr>
<td>Smoking cessation counseling offered among current smokers</td>
<td>1</td>
<td>63</td>
<td>1.6 %</td>
<td></td>
</tr>
<tr>
<td>Non-Smoking Rate</td>
<td>69</td>
<td>154</td>
<td>57.8 %</td>
<td></td>
</tr>
<tr>
<td>Adherence to annual screening</td>
<td>37</td>
<td>106</td>
<td>34.9 %</td>
<td></td>
</tr>
<tr>
<td>Radiation exposure, Mean CTDIvol - overall</td>
<td>411</td>
<td>154</td>
<td>2.7 mGy</td>
<td></td>
</tr>
<tr>
<td>- underweight (BMI less than 18.5)</td>
<td>8</td>
<td>4</td>
<td>2.0 mGy</td>
<td></td>
</tr>
<tr>
<td>- healthy weight (BMI of 18.5 to 24.9)</td>
<td>110</td>
<td>49</td>
<td>2.2 mGy</td>
<td></td>
</tr>
<tr>
<td>- overweight (BMI of 25.0 to 29.9)</td>
<td>123</td>
<td>53</td>
<td>2.3 mGy</td>
<td></td>
</tr>
<tr>
<td>- obese (BMI 30.0 or greater)</td>
<td>170</td>
<td>48</td>
<td>3.5 mGy</td>
<td></td>
</tr>
<tr>
<td>- obese class 1 (BMI 30.0 to 34.9)</td>
<td>77</td>
<td>25</td>
<td>3.1 mGy</td>
<td></td>
</tr>
</tbody>
</table>

First-time screening %: Percent of screenings for first-time patients out of all screenings

Comparison data compiled from 967,850 exams across 2,994 facilities using data from 2022

The facility value of 50.0% is in the Lowest 25% of all sites in the registry.
Adherence to Annual Screening

Number of patients with follow-up exam 11-15 months after previous screening out of number of patients where previous screening met appropriateness criteria and had Lung-RADS 1 or 2

<table>
<thead>
<tr>
<th>Report Section</th>
<th>Measurement Name</th>
<th>Num.</th>
<th>Den.</th>
<th>Facility Performance</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screened Population</td>
<td>Appropriateness of screening by USPSTF criteria: 2013 Guidelines</td>
<td>149</td>
<td>163</td>
<td>91.4 %</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Appropriateness of screening by USPSTF criteria: 2021 Guidelines</td>
<td>161</td>
<td>163</td>
<td>98.8 %</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Smoking cessation counseling offered</td>
<td>54</td>
<td>163</td>
<td>33.1 %</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Smoking cessation counseling offered among current smokers</td>
<td>54</td>
<td>54</td>
<td>100 %</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Non-Smoking Rate</td>
<td>109</td>
<td>163</td>
<td>66.9 %</td>
<td>%</td>
</tr>
<tr>
<td>During the Exam</td>
<td>Radiation exposure, Mean CT Dose (overall)</td>
<td>399</td>
<td>163</td>
<td>2.4 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- underweight (BMI less than 18.5)</td>
<td>9</td>
<td>8</td>
<td>1.1 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- healthy weight (BMI of 18.5 to 24.9)</td>
<td>74</td>
<td>44</td>
<td>1.7 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- overweight (BMI of 25.0 to 29.9)</td>
<td>127</td>
<td>57</td>
<td>2.2 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- obese (BMI of 30.0 or greater)</td>
<td>187</td>
<td>53</td>
<td>3.6 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- obese class 1 (BMI 30.0 to 34.9)</td>
<td>82</td>
<td>30</td>
<td>2.7 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- obese class 2 (BMI 35.0 to 39.9)</td>
<td>33</td>
<td>11</td>
<td>3.0 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>- obese class 3 (BMI 40.0 and above)</td>
<td>60</td>
<td>12</td>
<td>5.0 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>Low-Dose Chest CT - CTDiff</td>
<td>399</td>
<td>163</td>
<td>2.4 mGy</td>
<td>mGy</td>
</tr>
<tr>
<td></td>
<td>Routine (not Low-Dose) Chest CT - CTDiff</td>
<td>0</td>
<td>0</td>
<td>mGy</td>
<td>mGy</td>
</tr>
<tr>
<td>Comparison</td>
<td>Radiation exposure, Mean Dose Length Product (DLP) (overall)</td>
<td>14,411</td>
<td>163</td>
<td>88.4 mGy*cm</td>
<td>mGy*cm</td>
</tr>
<tr>
<td></td>
<td>- underweight (BMI less than 18.5)</td>
<td>323</td>
<td>8</td>
<td>40.4 mGy*cm</td>
<td>mGy*cm</td>
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<tr>
<td></td>
<td>- healthy weight (BMI of 18.5 to 24.9)</td>
<td>2,723</td>
<td>44</td>
<td>61.9 mGy*cm</td>
<td>mGy*cm</td>
</tr>
<tr>
<td></td>
<td>- overweight (BMI of 25.0 to 29.9)</td>
<td>4,643</td>
<td>57</td>
<td>81.5 mGy*cm</td>
<td>mGy*cm</td>
</tr>
</tbody>
</table>
Adherence to Screening LCSR Measures

Adherence to 6-month Interim Assessment

- Percentage of patients with a chest CT 4-8 months after a previous screening with Lung-RADS 3

Adherence to 3-month Interim Assessment

- Percentage of patients with a chest CT 6-18 weeks OR a diagnostic PET/CT 0-18 weeks after a previous screening with Lung-RADS 4a
Appropriate Radiation Dose

Goals

• Promote the most appropriate radiation dose for lung cancer screening exams
• Encourage the As Low As Reasonably Achievable (ALARA) principle

Rationale

• Patients may begin screening as young as age 50 and may continue to be screened through 80 years of age annually according to the latest USPSTF guidelines
• Additionally, patients may undergo additional CTs for screen-detected abnormalities between annual screens
Appropriate Radiation Dose LCSR Measures

Radiation exposure, Mean CTDIvol – overall (mGy)

- Underweight
- Healthy weight
- Overweight
- Obese

Facility Peer Comparisons Report
Increasing Smoking Cessation

Goal
- Increase the number of former smokers enrolled in an LCS program
- Ensure effective smoking cessation counseling is offered to current and recently former smokers

Rationale
- Cigarette smoking is the number one risk factor for lung cancer. It causes about 90% of lung cancer cases. Smoking cessation is key to decreasing lung cancer risk
- The prevalence of smoking among individuals presenting for annual LCS is higher than among those in the community with 48–70% of those undergoing LCS actively smoking
- Cessation rates after LCS alone range from 16-42%; therefore, LCS is a prime opportunity for intervention and counseling amplifies the benefit of LCS
- Images of patient’s smoking-related lung disease and radiology reports are potential tools to encourage patients to consider smoking cessation and present a unique opportunity for radiologists to facilitate patient-centered care
Increasing Smoking Cessation LCSR Measures

Measure

- Smoking cessation offered
- Smoking cessation offered among current smokers
- Non-smoking rate

Description

- Smoking cessation offered: Percentage of screening exams where patients are offered smoking cessation guidance.
- Smoking cessation offered among current smokers: Percentage of screening exams done on Current Smokers where smoking cessation guidance was offered.
- Non-smoking rate: Percentage of patients reporting as Former Smoker out of all patients reporting as Current Smoker, Former Smoker, or Smoker, Current Status Unknown.
Updates to the Facility Comparisons Report
Facility Comparisons Report Training Videos

Report How-to Videos and Overview Material

Creating, Navigating, and Exporting Reports
Working with DIR Interactive Reports
DIR Interactive Report Videos: Navigation, Downloads and Filters
Benchmark Methodology
Interactive Report Video: Creating a Custom Report View
Interactive Report Videos: The LCSR Facility Comparisons Report

Can’t find what you’re looking for?

ACR Staff login
Let us help you right now! Submit a Ticket
ACR’s **LCS Facility Locator Tool** helps people across the country find LCS centers in their area

- Please review your Facility Information form in the NRDR portal to confirm it is correct and complete
- You must check off the box in front of the instruction “Please include my facility in the list on the website of registered NRDR facilities” to provide permission for the ACR to include your facility in the Locator Tool
ACR Designated Lung Cancer Screening Center

ACR Lung Cancer Screening Center designation is a valuable tool for maintaining excellence in everything from operations to patient care. ACR accreditation helps assure your patients that you provide the highest level of image quality and safety. Our process documents that your facility meets requirements for equipment, medical personnel and quality assurance.

Eligibility requirements:

• Achieve ACR CT accreditation in the chest module
• Confirm that your medical imaging staff has the appropriate experience and qualifications
• Confirm that your screening protocol meets minimum technical specifications
• Participate in the ACR Lung Cancer Screening Registry

Apply at: https://www.acraccreditation.org/centers-of-excellence/lung-cancer-screening-center
National Lung Cancer Screening Day

Second annual National Lung Cancer Screening Day (“National LCS Day”) is on **Saturday, November 11, 2023**

What is National LCS Day?

- American Cancer Society National Lung Cancer Roundtable (NLCRT), ACR, Radiology Health Equity Coalition, and Veterans Administration partnership

- Asks facilities to open their doors the second Saturday in November to allow individuals to access LDCT lung screening without having to take a day off work, increasing the accessibility of screening overall.

- Serves to increase the profile of early detection of lung cancer to those in the community who might be unaware of the option

- Acts as a catalyst to make lung screening a year-round priority
National Lung Cancer Screening Day

Help us promote LCS Day:

• Sign up to participate (https://bit.ly/3ozryBJ)
  • Receive access to a repository of resources, including instructions for how to open on a Saturday, patient flyers, and Marketing and Communications Toolkit
• Use the official National LCS Day hashtag, #LCSDay2023, on social media
• Ask your network to share this opportunity as well

Lung cancer claims the lives of 127,000+ Americans every year. Only a small percentage of individuals get recommended screening tests. Spread the word about National Lung Cancer Screening Day on November 11! #LCSDay2023 #LCSM #LungCancer https://bit.ly/3ozryBJ

@NLCRTNews @ACR and @RadHealthEqty have partnered with the VA this Veteran’s Day to promote National LCS Day 2023, a day for facilities to open their doors on Saturday for patients to be screened. Find more information and sign up today at https://bit.ly/3ozryBJ #LCSDay2023 #LCAM

This World Lung Cancer Day, join @NLCRTNews @ACR and @RadHealthEqty in signing up for National LCS Day 2023. The second Saturday in November, facilities will open for lung screening to increase health equity and screening access. Sign up at https://bit.ly/3ozryB #LCSDay2023
Volunteer to be an early adopter and receive:

- Guidance to gain the most benefit from your reports
- Opportunity to provide direct user feedback
- Registry discount
- Performance Improvement CME
- Case study publication opportunities
- Q&S conference presentation opportunity

Complete the interest form to get started
Join the ACR and STR for the final part of this Advancing Your Lung Cancer Screening Program series:

Aug. 23, 12-1pm ET | An Approach to Structured Performance Improvement Using Your Lung Cancer Screening Registry Data

Share with your colleagues: https://pages.acr.org/LCSR-Webinar-Series.html
NRDR Help Desk

- Email: NRDRSupport@acr.org
- Phone: 1-800-227-5463 x3535
- Web: https://nrdrsupport.acr.org
Those wanting to claim credit must submit a request for CME form. Please do not submit more than once.

CME Credit claiming instructions will be sent to you via email from alacount@acr.org within 5-7 business days of form submission. Please click on the link and follow the instructions in the email to claim your credit, complete the activity evaluation, and receive your certificate. All evaluations and credit claiming requests must be completed no later than 11:59 EDT, November 1, 2023.

For questions regarding the credit claiming of this activity, please contact us at nrdr@acr.org.