*National Imaging Associates, Inc.	
Clinical guidelines **LOW-DOSE CT FOR LUNG CANCER SCREENING**	**Original Date: January 2015**
CPT Codes: 71271	**Last Revised Date: January 2023**
Guideline Number: NIA_CG_020-1	**Implementation Date: July 2024**

GENERAL INFORMATION

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*

INDICATIONS FOR LOW-DOSE CT (LDCT) FOR LUNG CANCER SCREENING

For Annual Lung Cancer Screening:

The use of low-dose, non-contrast spiral (helical) multi-detector CT imaging as a screening technique for lung cancer is considered **medically necessary ONLY** when used to screen for lung cancer for certain high-risk, **asymptomatic** individuals, i.e., no acute lung-related symptoms, when **ALL** of the following criteria are met[1]:

Group 1:

- Individual is between 50-80 years of age*; **AND**
- There is at least a 20 pack-year history of cigarette** smoking

*May approve for individuals over the age limit if the individual is a candidate for and willing to undergo curative treatment

** Annual screening refers to the use of cigarettes only; does not take other forms of smoking into the calculation (i.e., vaping, pipe, cigar, marijuana; see Background)

Group 2:

Yearly Low-Dose CT surveillance after completion of definitive treatment of non-small cell lung cancer as per these parameters[2]:

- Stage I-II (treated with surgery +/- chemotherapy)
    - Starts at year 2-3 of surveillance
- Stage I-II (treated primarily with radiation) or stage III-IV with all sites treated with definitive intent
    - Starts at year 5 of surveillance

Nodule on initial LDCT (Follow-up low dose CT is approvable)[3]:

- Table 1 shows the follow-up interval at which LDCT can be approved to reduce radiation dose[2]
- If multiple nodules, the largest and type is used for decision

Other Indications

Further evaluation of indeterminate findings on prior imaging (unless follow up is otherwise specified within the guideline):

- For initial evaluation of an inconclusive finding on a prior imaging report that requires further clarification
- One follow-up exam of a prior indeterminate MR/CT finding to ensure no suspicious interval change has occurred. (No further surveillance unless specified as highly suspicious or change was found on last follow-up exam.)

Table 1: Lung-RADS® Assessment Categories[2]

Category Descriptor	Lung-RADS Score	Findings	Management
Incomplete	**0**	Prior chest CT examination(s) being located for comparison Part or all of lungs cannot be evaluated	Additional lung cancer screening CT images and/or comparison to prior chest CT examinations is needed
Negative No nodules and definitely benign nodules	**1**	No lung nodules Nodule(s) with specific calcifications: complete, central, popcorn, concentric rings and fat containing nodules	Continue annual screening with LDCT in 12 months
Benign Appearance or Behavior Nodules with a very low likelihood of becoming a clinically active cancer due to size or lack of growth	**2**	**Perifissural nodule(s)** *(See Footnote 11)* < 10 mm (524 mm^3) **Solid nodule(s):** < 6 mm (< 113 mm^3) new < 4 mm (< 34 mm^3) **Part solid nodule(s):** < 6 mm total diameter (< 113 mm^3) on baseline screening **Non solid nodule(s) (GGN):** <30 mm (<14137 mm^3) **OR** ≥ 30 mm (≥ 14137 mm^3) and unchanged or slowly growing **Category 3 or 4 nodules unchanged for ≥ 3 months**	
Probably Benign Probably benign finding(s) - short term follow up suggested; includes nodules with a low likelihood of becoming a clinically active cancer	**3**	**Solid nodule(s):** ≥ 6 to < 8 mm (≥ 113 to < 268 mm^3) at baseline **OR** new 4 mm to < 6 mm (34 to < 113 mm^3) **Part solid nodule(s)** ≥ 6 mm total diameter (≥ 113 mm^3) with solid component < 6 mm (< 113 mm^3) **OR** new < 6 mm total diameter (< 113 mm^3) **Non solid nodule(s)** (GGN) ≥ 30 mm (≥ 14137 mm^3) on baseline CT or new	6 month LDCT
Suspicious Findings for which additional diagnostic testing is recommended	**4A**	**Solid nodule(s):** ≥ 8 to < 15 mm (≥ 268 to < 1767 mm^3) at baseline **OR** growing < 8 mm (< 268 mm^3) **OR** new 6 to < 8 mm (113 to < 268 mm^3) **Part solid nodule(s):** ≥ 6 mm (≥ 113 mm^3) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm^3) **OR** with a new or growing < 4 mm (< 34 mm^3) solid component **Endobronchial nodule**	3 month LDCT; PET/CT may be used when there is a ≥ 8 mm (≥ 268 mm^3) solid component
Very Suspicious Findings for which additional diagnostic testing and/or tissue sampling is recommended	**4B**	**Solid nodule(s)** ≥ 15 mm (≥ 1767 mm^3) **OR** new or growing, and ≥ 8 mm (≥ 268 mm^3) **Part solid nodule(s) with:** a solid component ≥ 8 mm (≥ 268 mm^3) **OR** a new or growing ≥ 4 mm (≥ 34 mm^3) solid component	Chest CT with or without contrast, PET/CT and/or tissue sampling depending on the *probability of malignancy and comorbidities. PET/CT may be used when there is a ≥ 8 mm (≥ 268 mm^3) solid component. *For new large nodules that develop on an annual repeat screening CT, a 1 month LDCT may be recommended to address potentially infectious or inflammatory conditions*
	4X	Category 3 or 4 nodules with additional features or imaging findings that increases the suspicion of malignancy	
Other Clinically Significant or Potentially Clinically Significant Findings (non lung cancer)	**S**	**Modifier - may add on to category 0-4 coding**	As appropriate to the specific finding

BACKGROUND

Screening should be discontinued once a person develops a health problem that limits the willingness or ability to have curative intent treatment.[5,6]

The health effects of smoking (tobacco) products other than cigarettes is limited. More research is needed to explore the cancer risk from these products to guide cancer prevention efforts; therefore, cancer screening guidelines have not been developed for them. Currently, the screening guidelines apply only to cigarettes smoking.

All screening and follow-up chest CT scans to be performed at low dose (100-120 kVp and 40-60 mAs), unless evaluating mediastinal findings or lymph nodes, where standard dose CT with IV contrast may be more appropriate.[4]

POLICY HISTORY

Date	Summary
January 2024	Removed language about former smoker from indications and background in GL to align with the American Cancer Society recommendations
April 2023	• Added that applies only to cigarette smoking • General Information moved to beginning of guideline with added statement on clinical indications not addressed in this guideline • Added statement regarding further evaluation of indeterminate findings on prior imaging
March 2022	• Reviewed data. No significant updates since prior revision.

REFERENCES

1. Final Recommendation Statement Lung Cancer: Screening U.S. Preventive Services Task Force (USPSTF). Updated March 9, 2021. Accessed November 20, 2022. https://uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening
2. Lung-RADS® Version 1.1. American College of Radiology (ACR). Updated 2019. Accessed November 20, 2022. https://www.acr.org/-/media/ACR/Files/RADS/Lung-RADS/LungRADSAssessmentCategoriesv1-1.pdf
3. Wood DE, Kazerooni EA, Baum SL, et al. Lung Cancer Screening, Version 3.2018, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw*. Apr 2018;16(4):412-441. doi:10.6004/jnccn.2018.0020
4. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines): Non-Small Cell Lung Cancer Version 1.2023. National Comprehensive Cancer Network (NCCN). Updated December 22, 2022. Accessed January 23, 2023. https://www.nccn.org/professionals/physician_gls/pdf/nscl.pdf
5. Network® NCC. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Lung Cancer Screening Version 2.2024. National Comprehensive Cancer Network®. Updated October 18, 2023. Accessed January 4, 2024. https://www.nccn.org/professionals/physician_gls/pdf/lung_screening.pdf
6. American Cancer Society®. Can Lung Cancer Be Found Early? Updated November 1, 2023. Accessed January 4, 2024. https://www.cancer.org/cancer/types/lung-cancer/detection-diagnosis-staging/detection.html.

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.*