

Evolut Clinical Guideline 2030 for Low Dose Computed Tomography (CT) for Lung Cancer Screening

Guideline Number: Evolut_CG_2030	<u>Applicable Codes</u>	
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STATEMENT

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.*
- *The guideline criteria in the following sections were developed utilizing evidence-based and peer-reviewed resources from medical publications and societal organization guidelines as well as from widely accepted standard of care, best practice recommendations.*

Purpose

Low Dose Computed Tomography (LDCT) generates images of the lungs (chest) and is used to screen for and detect lung cancer in high-risk patients and/or patients with a history of lung cancer. This study uses low doses of radiation (100-120 kVp and 40-60 mAs) and is primarily used to evaluate the lung parenchyma. When evaluation of structures such as lymph nodes or the mediastinum is needed, a standard dose CT with IV contrast may be more appropriate. ⁽¹⁾

INDICATIONS

For Annual 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)

NOTE: Screening should be discontinued once a person develops a health problem that limits the willingness or ability to have curative intent treatment. ⁽²⁾

Group 1 - High Risk for Lung Cancer ^(3,4)

- 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 upon diagnosis.

** Only personal cigarette smoking history as above places an individual at high risk; secondhand smoke exposure and other forms of smoking (such as pipe, cigar, marijuana, vaping) do **NOT** factor into current recommendations for LDCT Screening.

Group 2 - Personal History of Lung Cancer ⁽¹⁾

Low Dose CT is indicated for surveillance of non-small cell lung cancer as follows:

- Annually starting 3 years after the end of treatment if stage I-II and no history of radiation
- Annually starting 6 years after end of treatment if **EITHER** stage I-II with history of radiation **OR** stage III or IV

NOTE: While on treatment, and for the first 2-3 years after completion of treatment, surveillance is with Chest CT rather than LDCT. When radiation was used for treatment, chest CT is needed for longer (5 years) before LDCT is appropriate. LDCT is not used for surveillance of small cell lung cancer ⁽⁵⁾ (see Evolent Clinical Guideline 2018 for Chest CT)

Follow up of nodule on initial LDCT ⁽³⁾

- Table 1 below shows the follow-up interval at which LDCT is indicated for follow up of nodules ⁽²⁾
 - If multiple nodules, the largest and most concerning is used for decision

Table 1: Lung-RADS® (2)

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Lung-RADS	Category Descriptor	Findings	Management
0	Incomplete Estimated Population Prevalence: ~ 1%	Prior chest CT examination being located for comparison (see note 9)	Comparison to prior chest CT;
		Part or all of lungs cannot be evaluated	Additional lung cancer screening CT imaging needed;
		Findings suggestive of an inflammatory or infectious process (see note 10)	1-3 month LDCT
1	Negative Estimated Population Prevalence: 39%	<p>No lung nodules OR</p> <p>Nodule with benign features:</p> <ul style="list-style-type: none"> • Complete, central, popcorn, or concentric ring calcifications OR • Fat-containing 	12-month screening LDCT
2	Benign - Based on imaging features or indolent behavior Estimated Population Prevalence: 45%	<p>Juxtapleural nodule:</p> <ul style="list-style-type: none"> • < 10 mm (524 mm³) mean diameter at baseline or new AND • Solid; smooth margins; and oval, lentiform, or triangular shape 	
		<p>Solid nodule:</p> <ul style="list-style-type: none"> • < 6 mm (< 113 mm³) at baseline OR • New < 4 mm (< 34 mm³) 	
		<p>Part solid nodule:</p> <ul style="list-style-type: none"> • < 6 mm total mean diameter (< 113 mm³) at baseline 	
		<p>Non solid nodule (GGN):</p> <ul style="list-style-type: none"> • < 30 mm (< 14,137 mm³) at baseline, new, or growing OR • ≥ 30 mm (≥ 14,137 mm³) stable or slowly growing (see note 7) 	
		<p>Airway nodule, subsegmental - at baseline, new, or stable (see note 11)</p> <p>Category 3 lesion that is stable or decreased in size at 6-month follow-up CT OR Category 4B lesion proven to be benign in etiology following appropriate diagnostic workup</p>	
3	Probably Benign - Based on imaging features or behavior Estimated Population Prevalence: 9%	<p>Solid nodule:</p> <ul style="list-style-type: none"> • ≥ 6 to < 8 mm (≥ 113 to < 268 mm³) at baseline OR • New 4 mm to < 6 mm (34 to < 113 mm³) 	6-month LDCT
		<p>Part solid nodule:</p> <ul style="list-style-type: none"> • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component < 6 mm (< 113 mm³) at baseline OR • New < 6 mm total mean diameter (< 113 mm³) 	
		<p>Non solid nodule (GGN):</p> <ul style="list-style-type: none"> • ≥ 30 mm (≥ 14,137 mm³) at baseline or new 	
		<p>Atypical pulmonary cyst: (see note 12)</p> <ul style="list-style-type: none"> • Growing cystic component (mean diameter) of a thick-walled cyst 	
		Category 4A lesion that is stable or decreased in size at 3-month follow-up CT (excluding airway nodules)	
4A	Suspicious Estimated Population Prevalence: 4%	<p>Solid nodule:</p> <ul style="list-style-type: none"> • ≥ 8 to < 15 mm (≥ 268 to < 1,767 mm³) at baseline OR • Growing < 8 mm (< 268 mm³) OR • New 6 to < 8 mm (113 to < 268 mm³) 	3-month LDCT; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm ³) solid nodule or solid component
		<p>Part solid nodule:</p> <ul style="list-style-type: none"> • ≥ 6 mm total mean diameter (≥ 113 mm³) with solid component ≥ 6 mm to < 8 mm (≥ 113 to < 268 mm³) at baseline OR • New or growing < 4 mm (< 34 mm³) solid component 	
		<p>Airway nodule, segmental or more proximal - at baseline (see note 11)</p>	
		<p>Atypical pulmonary cyst: (see note 12)</p> <ul style="list-style-type: none"> • Thick-walled cyst OR • Multilocular cyst at baseline OR • Thin- or thick-walled cyst that becomes multilocular 	
4B	Very Suspicious Estimated Population Prevalence: 2%	<p>Airway nodule, segmental or more proximal - stable or growing (see note 11)</p>	Referral for further clinical evaluation
		<p>Solid nodule:</p> <ul style="list-style-type: none"> • ≥ 15 mm (≥ 1,767 mm³) at baseline OR • New or growing ≥ 8 mm (≥ 268 mm³) 	
		<p>Part solid nodule:</p> <ul style="list-style-type: none"> • Solid component ≥ 8 mm (≥ 268 mm³) at baseline OR • New or growing ≥ 4 mm (≥ 34 mm³) solid component 	
		<p>Atypical pulmonary cyst: (see note 12)</p> <ul style="list-style-type: none"> • Thick-walled cyst with growing wall thickness/nodularity OR • Growing multilocular cyst (mean diameter) OR • Multilocular cyst with increased loculation or new/increased opacity (nodular, ground glass, or consolidation) 	
		Slow growing solid or part solid nodule that demonstrates growth over multiple screening exams (see note 8)	Diagnostic chest CT with or without contrast; PET/CT may be considered if there is a ≥ 8 mm (≥ 268 mm ³) solid nodule or solid component; tissue sampling; and/or referral for further clinical evaluation Management depends on clinical evaluation, patient preference, and the probability of malignancy (see note 13)
4X	Estimated Population Prevalence: < 1%	Category 3 or 4 nodules with additional features or imaging findings that increase suspicion for lung cancer (see note 14)	
S	Significant or Potentially Significant Estimated Population Prevalence: 10%	Modifier: May add to category 0-4 for clinically significant or potentially clinically significant findings unrelated to lung cancer (see note 15)	As appropriate to the specific finding

CODING AND STANDARDS

Codes

71271, +0722T

Applicable Lines of Business

☒	CHIP (Children’s Health Insurance Program)
☒	Commercial
☒	Exchange/Marketplace
☒	Medicaid
☒	Medicare Advantage

SUMMARY OF EVIDENCE

ACR Lung-RADS v2022: Assessment Categories and Management Recommendations ⁽²⁾

Study Design: This article provides an update to the Lung CT Screening Reporting and Data System (Lung-RADS) developed by the American College of Radiology (ACR). The updates are based on new scientific evidence, expert consensus, and systematic reviews of the literature.

Target Population: The target population includes individuals undergoing lung cancer screening with low-dose CT (LDCT), particularly those at high risk for lung cancer.

Key Factors: Introduces new criteria for atypical pulmonary cysts, juxtapleural nodules, airway-centered nodules, and potentially infectious findings. Provides updated management recommendations for various nodule types and conditions. Clarifies the definition of nodule growth and introduces stepped management for nodules that are stable or decreasing in size.

Screening for lung cancer: 2023 guideline update from the American Cancer Society ⁽⁴⁾

Study Design: This guideline update is based on a systematic review of the literature, epidemiologic and modeling analyses, and expert consensus. The American Cancer Society (ACS) Guideline Development Group (GDG) utilized various sources, including the US Preventive Services Task Force 2021 recommendation update, Cancer Intervention and Surveillance Modeling Network-validated lung cancer models, and disease burden data from the National Cancer Institute’s Surveillance, Epidemiology, and End Results program.

Target Population: The guideline targets adults at high risk for lung cancer due to a history of smoking. Specifically, it recommends annual lung cancer screening (LCS) with low-dose computed tomography (LDCT) for asymptomatic individuals aged 50-80 years who currently smoke or formerly smoked and have a ≥20 pack-year smoking history.

Key Factors: Individuals aged 50-80 years with a ≥ 20 pack-year smoking history, regardless of years since quitting smoking (YSQ). Annual LCS with LDCT for eligible individuals. Emphasizes the importance of shared decision-making between patients and healthcare providers. Individuals who currently smoke should receive counseling to quit and be connected to cessation resources. Individuals with comorbid conditions that substantially limit life expectancy should not be screened.

ANALYSIS OF EVIDENCE

Analysis ^(2,4):

Both articles provide strong evidence supporting the use of LDCT for lung cancer screening in high-risk individuals. They agree on the significant mortality reduction achieved through regular screening and the importance of identifying eligible individuals based on age and smoking history. However, they differ in their recommendations regarding the YSQ criterion, management of findings, and the use of volumetric analysis. These differences highlight the need for ongoing research and individualized patient care to optimize lung cancer screening outcomes.

Shared Findings

Both articles emphasize the importance of LDCT in reducing lung cancer mortality among high-risk individuals. They highlight the significant reduction in lung cancer-specific mortality demonstrated by major trials such as the National Lung Screening Trial (NLST) and the Dutch-Belgian Randomized Lung Cancer Screening Trial (NELSON).

- **Mortality Reduction:** Both articles agree that LDCT screening leads to a substantial reduction in lung cancer mortality. The NLST reported a 20% reduction in lung cancer-specific mortality, while the NELSON trial reported reductions of up to 26% and 39% in lung cancer-specific mortality.
- **Eligibility Criteria:** Both guidelines recommend LDCT screening for individuals aged 50-80 years with a significant smoking history (≥ 20 pack-years). They emphasize the importance of identifying high-risk individuals for screening.
- **Screening Intervals:** Both articles support annual screening with LDCT for eligible individuals. They stress the importance of regular screening to detect lung cancer at an early, more treatable stage.

POLICY HISTORY

Date	Summary
July 2025	<ul style="list-style-type: none"> ● Added a Summary of Evidence and Analysis of Evidence ● Added in CPT code +0722T
June 2025	<ul style="list-style-type: none"> ● This guideline replaces Evolent Clinical Guideline 020-1 for Low

Date	Summary
	Dose CT for Lung Cancer Screening <ul style="list-style-type: none"> ● Added in general information statement regarding guideline criteria development by reputable sources, standard of care, and best practices ● Applicable Line of Business adjusted – Medicare checked
May 2024	<ul style="list-style-type: none"> ● Smoking was re-worded ● Updated Lung Rads Table
January 2024	<ul style="list-style-type: none"> ● Removed language about former smoker from indications and background in GL to align with the American Cancer Society recommendations

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Services Clinical Guideline Review Committee

Disclaimer

Evolent Clinical Guidelines do not constitute medical advice. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Evolent uses Clinical Guidelines in accordance with its contractual obligations to provide utilization management. Coverage for services varies for individual members according to the terms of their health care coverage or government program. Individual members' health care coverage may not utilize some Evolent Clinical Guidelines. Evolent clinical guidelines contain guidance that requires prior authorization and service limitations. A list of procedure codes, services or drugs may not be all inclusive and does not imply that a service or drug is a covered or non-covered service or drug. Evolent reserves the right to review and update this Clinical Guideline in its sole discretion. Notice of any changes shall be provided as required by applicable provider agreements and laws or regulations. Members should contact their Plan customer service representative for specific coverage information.

Evolent Clinical Guidelines are comprehensive and inclusive of various procedural applications for each service type. Our guidelines may be used to supplement Medicare criteria when such criteria is not fully established. When Medicare criteria is determined to not be fully established, we only reference the relevant portion of the corresponding Evolent Clinical Guideline that is applicable to the specific service or item requested in order to determine medical necessity.

REFERENCES

1. Referenced with permission from the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Non-Small Cell Lung Cancer Version 3.2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. To view the most recent and complete version of the guideline, go online to NCCN.org. https://www.nccn.org/professionals/physician_gls/pdf/nscl.pdf
2. Christensen J, Prosper AE, Wu CC, et al. ACR Lung-RADS v2022: Assessment Categories and Management Recommendations. *Journal of the American College of Radiology*. 2024;21(3):473-488. doi:10.1016/j.jacr.2023.09.009
3. Referenced with permission from the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Lung Cancer Screening Version 1.2025 © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. To view the most recent and complete version of the guideline, go online to NCCN.org.
4. Wolf AMD, Oeffinger KC, Shih TY, et al. Screening for lung cancer: 2023 guideline update from the American Cancer Society. *CA Cancer J Clin*. 2024;74(1):50-81. doi:10.3322/caac.21811
5. Referenced with permission from the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Small Cell Lung Cancer Version 4.2025 © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. To view the most recent and complete version of the guideline, go online to NCCN.org.