HEALTH PLANS
UNIVERSITY OF UTAH

Medical Policy

Low-Dose Computed Tomography for Lung Cancer Screening

Policy MP-040

Origination Date: 04/01/2015

Reviewed/Revised Date: 02/21/2024

Next Review Date: 02/21/2025

Current Effective Date: 02/21/2024

Disclaimer:

1. Policies are subject to change in accordance with State and Federal notice requirements.
2. Policies outline coverage determinations for U of U Health Plans Commercial and Healthy U (Medicaid) plans. Refer to the "Policy" section for more information.
3. Services requiring prior-authorization may not be covered, if prior-authorization is not obtained.
4. This Medical Policy does not guarantee coverage or payment of the service. The service must be a benefit in the member's plan and the member must be eligible for coverage at the time of service. Additional payment guidelines may be applied that are not included in this policy.

Description:

Low-dose computed tomography (LDCT), using either spiral (helical) or multi-detector CT, has been proposed as a method for screening individuals at high risk for the development of lung cancer, in order to detect the cancer at an earlier, potentially more curable stage. Compared with conventional CT scans, these scans allow for the continuous acquisition of images, thus shortening the scan time and radiation exposure. A complete CT scan using LDCT can be obtained within 10 to 20 seconds. The radiation exposure for this examination is greater than that of a chest radiography but less than a conventional CT scan.

Policy Statement and Criteria

1. Commercial Plans

U of U Health Plans may cover annual low-dose computed tomography (LDCT) scanning as a screening test if the following criteria are met:

A. For current smoking members:

i. Age 50 to 80 years;

ii. Smokes at least 20 pack years;

iii. Member is asymptomatic for signs of underlying cancer or health concern that limits life expectancy or the ability or willingness to have curative lung surgery.

B. For former smoking members:

   i. Age 50 to 80 years;

   ii. Smoked at least 20 pack years

   iii. Has quit within the past 15 years;

   iv. Member is asymptomatic for signs of underlying cancer or health concern that limits life expectancy or the ability or willingness to have curative lung surgery.

U of U Health Plans does NOT cover annual low-dose computed tomography (LDCT) scanning as a screening test for any other indication as it is considered investigational/experimental.

2. **Medicaid Plans**

Coverage is determined by the State of Utah Medicaid program; if Utah State Medicaid has no published coverage position and InterQual criteria are not available, the U of U Health Plans Commercial criteria will apply. For the most up-to-date Medicaid policies and coverage, please visit their website at: https://medicaid.utah.gov/utah-medicaid-official-publications/ or the Utah Medicaid code Look-Up tool

CPT/HCPCS codes covered by Utah State Medicaid may still require further evaluation to determine medical necessity for coverage.

Clinical Rationale

In a 2019 secondary analysis of the randomized National Lung Screening Trial (NLST), Tammemägi et. al. questioned if incorporating low-dose computed tomography lung cancer screening results would improve the regression risk model's NLST Lung Screening Study (LSS) that was validated in NLST American College of Radiology Imaging Network (ACRIN) data. The study took place between August 2002 and April 2004, with the first analysis in 2009. The secondary analysis looked at participants between August 2013 and November 2018. The PLCOm2012 is a lung cancer risk prediction model that was used in this study and has been validated by research teams in several countries, including the U.S. A total of 22,229 participants, LSS (n = 14 576) and ACRIN (n = 7653), were included in the study. The authors found that, some individuals who have negative initial screens with elevated risk scores remain at risk and warrant annual screening. The use of PLCOm2012 results could lead to fewer screens, which may reduce certain harms, such as radiation exposure, false-positive findings, over diagnosis and could potentially improve cost-effectiveness.

As of 2021, the U.S. Preventative Services Task Force (USPSTF) recommends the following for Lung Cancer Screening: “Annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. 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.”

The National Comprehensive Cancer Network (NCCN) version 1.2023 recommends lung cancer screening using LDCT for individuals with high risk factors, including aged ≥50 years or a history of smoking ≥20 or more packs a year, with additional risk factors (i.e. personal history of cancer or lung disease, family history of lung cancer in first-degree relatives, radon exposure, disease history of COPD or pulmonary fibrosis, smoking exposure [second-hand smoke] and occupational exposure to carcinogens).

Applicable Coding

CPT Codes

71271	Computed tomography, thorax, low dose for lung cancer screening, without contrast material(s)

HCPCS Codes

G0296	Counseling visit to discuss need for lung cancer screening using low dose CT scan (LDCT) (service is for eligibility determination and shared decision making)

ICD-10 Codes

F17.200	Nicotine dependence, unspecified, uncomplicated
F17.201	Nicotine dependence, unspecified, in remission
F17.210	Nicotine dependence, cigarettes, uncomplicated
F17.211	Nicotine dependence, cigarettes, in remission
Z12.2	Encounter for screening for malignant neoplasm of respiratory organs
Z72.0	Tobacco use
Z87.891	Personal history of nicotine dependence

References:

1. National Comprehensive Cancer Network® (NCCN). "Lung Cancer Screening". Version 1-2023. Accessed February 6, 2023. Available at:https://www.nccn.org/professionals/physician_gls/pdf/lung_screening.pdf
2. Tammemägi, M. C., et al. (2019). "Development and Validation of a Multivariable Lung Cancer Risk Prediction Model That Includes Low-Dose Computed Tomography Screening Results: A Secondary Analysis of Data From the National Lung Screening Trial Multivariable Lung Cancer Risk Prediction Model Including CT Screening Results Multivariable Lung Cancer Risk Prediction Model Including CT Screening Results." JAMA Network Open **2**(3): e190204-e190204.
3. UpToDate®. "Lung Cancer Screening". Literature current through: January 2024. Topic last updated: November 21, 2023. Topic 7566. Version 114.0. Accessed February 6, 2024. Available at: https://www.uptodate.com
4. U.S. Preventative Services Task Force (USPSTF). (2021) "Lung Cancer: Screening". Accessed: January 29, 2024. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening