Making Cancer History®

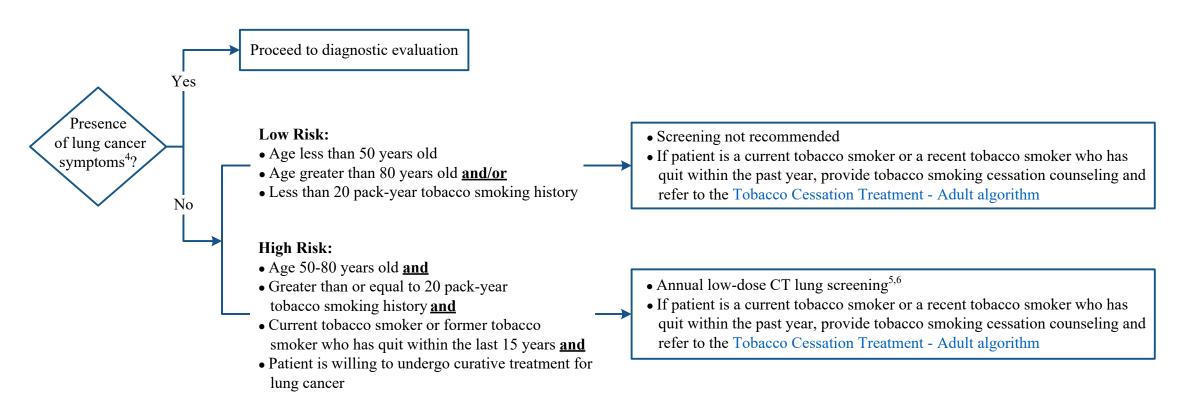
Lung Cancer Screening

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Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

Note: Screening is only intended for asymptomatic individuals^{1,2} and should take place in the context of appropriate shared decision making³. Individuals undergoing lung cancer screening should have a 10-year life expectancy and no co-morbidities that would limit the diagnostic evaluation or treatment of any identified problem. The screening technique should be performed with a consistent technique and process.

PRESENTATION RISK SCREENING



¹Refer to Small Cell Lung Cancer (SCLC) algorithm or Non-Small Cell Lung Cancer algorithm

² Lung cancer screening should be avoided in patients that are currently undergoing cancer treatment (lung cancer or other malignancies) or that are under post-treatment surveillance for recurrent or metastatic disease. These cases should be evaluated on a case-by-case basis.

³ Refer to Appendix A for the Benefits and Risks of Lung Cancer Screening

⁴Lung cancer symptoms include:

[•] Cough • Hoarseness • Unexplained weight loss • Hemoptysis

⁵ Multi-detector thin-slice low dose CT chest without IV contrast

⁶ High risk patients aged 78-80 years old are eligible by United States Preventive Services Taskforce (USPSTF) screening criteria, but are currently not covered by Centers for Medicare and Medicaid Services (CMS). Private insurance plans vary according to plan.

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APPENDIX A: Benefits and Risks of Lung Cancer Screening

Benefits

- Increase survival from lung cancer
- Identification of previously unknown major health risks
- Improvement of quality of life
- Reduction in disease-related morbidity, treatment-related morbidity, and mental, emotional, social, and spiritual health implications

Risks

- Detection of non-aggressive tumors or indolent disease
- Detection of incidental lesions
- Potential side effects and/or complications from diagnostic workup
- Inaccurate results from testing (e.g., false-positive results or false-negative results)
- Unnecessary testing and procedures
- Exposure to radiation
- Anxiety and stress from test results
- Financial burden

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SUGGESTED READINGS

- Flehinger, B. J., Kimmel, M., & Melamed, M. R. (1992). The effect of surgical treatment on survival from early lung cancer: Implications for screening. *Chest*, 101(4), 1013-1018. https://doi.org/10.1378/chest.101.4.1013
- Henschke, C. I., McCauley, D. I., Yankelevitz, D. F., Naidich, D. P., McGuinness, G., Miettinen, O. S., . . . Smith, J. P. (1999). Early lung cancer action project: Overall design and findings from baseline screening. *The Lancet*, 354(9173), 99-105. https://doi.org/10.1016/s0140-6736(99)06093-6
- de Koning, H. J., van der Aalst, C. M., de Jong, P. A., Scholten, E. T., Nackaerts, K., Heuvelmans, M. A., . . . Oudkerk, M. (2020). Reduced lung-cancer mortality with volume CT screening in a randomized trial. *The New England Journal of Medicine 382*(6), 503-513. https://doi.org/10.1056/nejmoa1911793
- National Comprehensive Cancer Network. (2022). *Lung Cancer Screening* (NCCN Guidelines Version 1.2023) Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/lung_screening.pdf
- The National Lung Screening Trial Research Team. (2011). Reduced lung-cancer mortality with low-dose computed tomographic screening. *The New England Journal of Medicine*, 365(5), 395-409. https://doi.org/10.1056/nejmoa1102873
- U.S. Preventive Services Task Force. (2021). Screening for lung cancer: U.S. Preventive Services Task Force recommendation statement. *Journal of American Medical Association*, 325(10), 962-970. https://doi.org/10.1001/jama.2021.1117

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DEVELOPMENT CREDITS

This screening algorithm is based on majority expert opinion of the Lung Cancer Screening workgroup at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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