

# Lung Cancer Screening

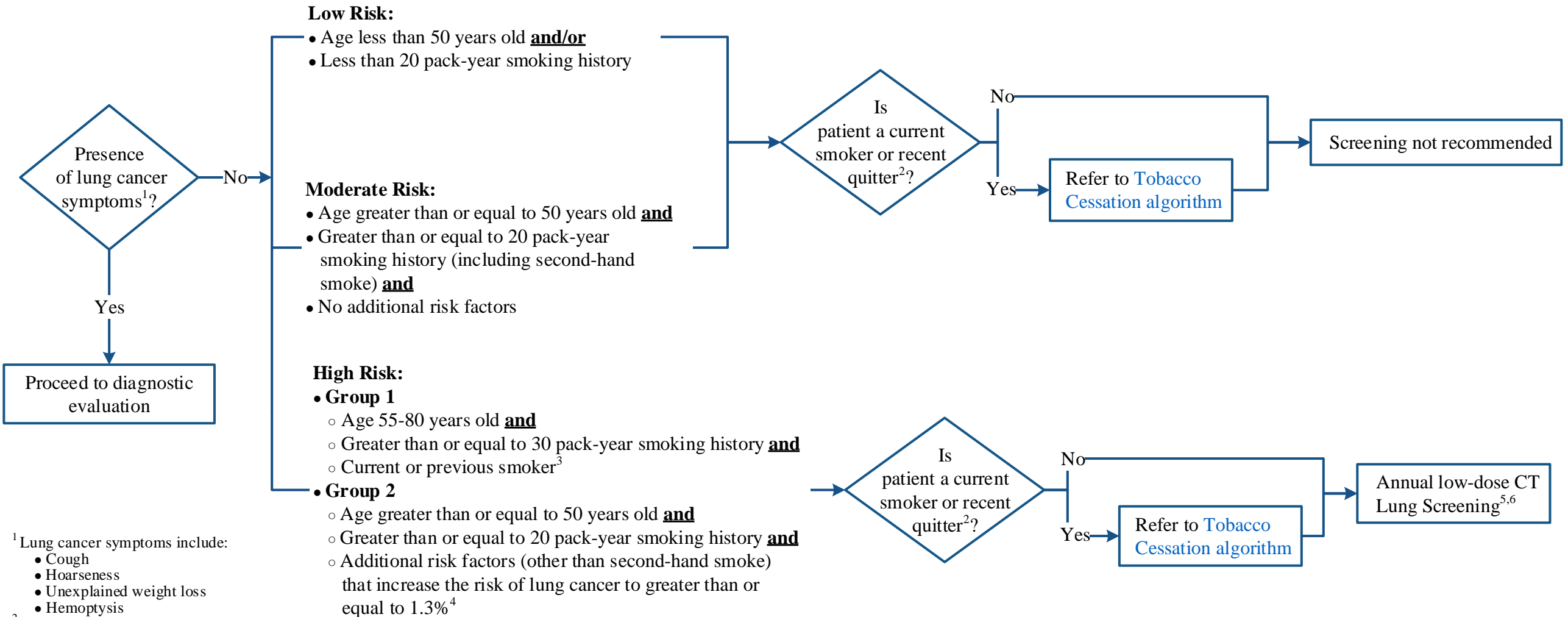
Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional 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 and should take place in the context of appropriate shared decision making. 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



<sup>1</sup> Lung cancer symptoms include:

- Cough
- Hoarseness
- Unexplained weight loss
- Hemoptysis

<sup>2</sup> Quit within past year

<sup>3</sup> Quit within previous 15 years

<sup>4</sup> Additional risk factors include: personal history of cancer or lung disease (COPD or pulmonary fibrosis), family history of lung cancer, radon exposure, occupational exposure to carcinogens. Tammemagi lung cancer risk calculator can be used to assist in quantifying risk for individuals in this group.

<sup>5</sup> Multidetector thin-slice low-dose CT chest without IV contrast administration

<sup>6</sup> Insurance may not cover CT for patients in group 2

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.*

---

## SUGGESTED READINGS

- Aberle, D. R., Adams, A. M., Berg, C. D., Black, W. C., Clapp, J. D., Fagerstrom, R. M., . . . 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. doi:10.1056/NEJMoa1102873
- 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. doi: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. doi:10.1016/S0140-6736(99)06093-6
- Moyer, V. A., US Preventive Serv Task Force, & U.S. Preventive Services Task Force. (2014). Screening for lung cancer: U.S. preventive services task force recommendation statement. *Annals of Internal Medicine*, 160(5), 330-338. doi:10.7326/M13-2771
- National Comprehensive Cancer Network. (2018). *Lung Cancer Screening* (NCCN Guideline Version 2.2019) Retrieved from [https://www.nccn.org/professionals/physician\\_gls/pdf/lung\\_screening.pdf](https://www.nccn.org/professionals/physician_gls/pdf/lung_screening.pdf)

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.*

---

## DEVELOPMENT CREDITS

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

Therese Bevers, MD (Clinical Cancer Prevention)<sup>†</sup>  
Powel Brown, MD, PhD (Clinical Cancer Prevention)  
Elise Cook, MD (Clinical Cancer Prevention)  
Robin Coyne, RN, MS, FNP-BC (Cancer Prevention)  
Joyce Dains, DrPH, JD, DNur, FNP-BCNAP (Nursing)  
George Eapen, MD (Pulmonary Medicine)  
Jeremy Erasmus, MD (Diagnostic Radiology-Thoracic Imaging)  
Wendy Garcia, BS<sup>♦</sup>  
Myrna Godoy, MD (Diagnostic Radiology-Thoracic Imaging)<sup>†</sup>  
Ernest Hawk, MD, MPH (Cancer Prevention)  
Marita Lazzaro, RN, MS, ANP (Cancer Prevention)  
Ana Nelson, RN, FNP, MSN (Cancer Prevention)<sup>†</sup>  
Lonzetta Newman, MD (Cancer Prevention)  
Tilu Ninan, RN, ANP, MSN (Cancer Prevention)  
Maisa Sanchez, LVN (Diagnostic Imaging)  
Stephen Swisher, MD (Surgery)  
Sonal Yang, PharmD, BCPS<sup>♦</sup>

<sup>†</sup> Core Development Team

<sup>♦</sup> Clinical Effectiveness Development Team