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**

Low Risk:
- Age less than 50 years old and/or
- Less than 20 pack-year smoking history

Moderate Risk:
- Age greater than or equal to 50 years old and
- Greater than or equal to 20 pack-year smoking history (including second-hand smoke) and
- No additional risk factors

High Risk:
- **Group 1**
  - Age 55-80 years old and
  - Greater than or equal to 30 pack-year smoking history and
  - Current or previous smoker
- **Group 2**
  - Age greater than or equal to 50 years old and
  - Greater than or equal to 20 pack-year smoking history and
  - Additional risk factors (other than second-hand smoke) that increase the risk of lung cancer to greater than or equal to 1.3%

Moderate Risk:
- Age greater than or equal to 50 years old and
- Greater than or equal to 20 pack-year smoking history and
- Additional risk factors (other than second-hand smoke) that increase the risk of lung cancer to greater than or equal to 1.3%

Low Risk:
- Age less than 50 years old and/or
- Less than 20 pack-year smoking history

Moderate Risk:
- Age greater than or equal to 50 years old and
- Greater than or equal to 20 pack-year smoking history (including second-hand smoke) and
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High Risk:
- **Group 1**
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- **Group 2**
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  - Additional risk factors (other than second-hand smoke) that increase the risk of lung cancer to greater than or equal to 1.3%

1. Lung cancer symptoms include:
   - Cough
   - Hoarseness
   - Unexplained weight loss
   - Hemoptysis
2. Quit within past year
3. Quit within previous 15 years
4. 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
5. Multidetector thin-slice low-dose CT chest without IV contrast administration
6. Insurance may not cover CT for patients in group 2

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Department of Clinical Effectiveness V5
SUGGESTED READINGS


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:

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