Lung Cancer Screening

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. 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

#### Presence of lung cancer symptoms? 
- **Yes** → Proceed to diagnostic evaluation
- **No** →
  - **Low Risk:** no current or former history of smoking → Screening not recommended
  - **Moderate Risk:** those patients who are not high or low risk → Refer to Tobacco Cessation algorithm
  - **High Risk:**
    - Age 55-80 years old
    - Greater than or equal to 30 pack-year smoking history
    - Current or previous smoker
      - **Yes** → Refer to Tobacco Cessation algorithm
      - **No** → Annual Low-Dose Thin Slice Multidetector CT of the lungs

### RISK

#### Low Risk: no current or former history of smoking
- Yes → Proceed to diagnostic evaluation
- No → Screening not recommended

#### Moderate Risk: those patients who are not high or low risk
- Yes → Refer to Tobacco Cessation algorithm
- No →
  - **Yes** → Annual Low-Dose Thin Slice Multidetector CT of the lungs
  - **No** →
    - **Yes** → Refer to Tobacco Cessation algorithm
    - **No** → Annual Low-Dose Thin Slice Multidetector CT of the lungs

#### High Risk:
- Age 55-80 years old
- Greater than or equal to 30 pack-year smoking history
- Current or previous smoker
  - **Yes** → Refer to Tobacco Cessation algorithm
  - **No** → Annual Low-Dose Thin Slice Multidetector CT of the lungs

### SCREENING

1. Lung cancer symptoms include:
   - Cough
   - Hoarseness
   - Unexplained weight loss
   - Hemoptysis
2. Examples of moderate risk include but are not limited to:
   - Previous history of other malignancies which would provide a higher risk for secondary lung cancer (e.g. patients with head and neck cancer related to smoking)
   - Less than 30 pack years of smoking history or age less than 55 years
   - Quit more than 15 years ago
3. Quit within past year
4. Quit within previous 15 years

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Approved by The Executive Committee of the Medical Staff on 02/28/2017
SUGGESTED READINGS


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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:

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