Breathing New Life Into Lung Cancer Screening Programs

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Key Session Takeaways
1. Lung cancer continues to be a burden on the public. There is a potential for saving lives with appropriate lung cancer screening.
2. This is a multi-step process for the patient; ensure that navigation and follow-up is clear.
3. Primary providers, as well as the public, need education. Be willing to advertise and promote screening efforts.

Disclosure Slide
• I have nothing to disclose.
Objectives

- To recognize the burden of lung cancer in public health
- Understand the value of lung cancer screening
- Identify high risk patients for lung cancer screening
- Learn the processes involved in planning for a lung cancer screening program
- Determine feasibility of lung cancer screening in practice setting
- Recognize stakeholders in program
- Understand the importance of communication within the multidisciplinary team
- Know how to code and bill for services related to Lung Cancer Screening

Promoting Lung Cancer Screening

Statistics

- Lung cancer is the leading cause of cancer deaths in the U.S. (1)
- Second most common cancer, 14% of all cancers (2)
- Lung cancer mortality rate is 87% (3)
- Accounts for more deaths than breast, colon, and prostate cancers COMBINED
- 5-year survival rate is 16% (4)
  - Breast cancer - 88%
  - Colon cancer - 65%
  - Prostate cancer - 100%

5-year Survival vs Presenting Case Types

<table>
<thead>
<tr>
<th>LOCALIZED</th>
<th>REGIONAL</th>
<th>DISTANT</th>
<th>UNSTAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>24</td>
<td>4.3</td>
<td>13</td>
</tr>
</tbody>
</table>

Seer Data 5-year relative survival (2006-2012) (6)
Lack of Progress

- Surgeon General 2014 Report on carcinogenic effects of smoking, the number of smokers decreased from 43% to 18% (5).
- Incidence of lung cancer has not decreased proportionately.
- Why? More than 80% of lung cancers are attributed to smoking.
- Mortality from lung cancer reflects smoking rates from 20 years ago (4).
- 2 out of 3 patients with lung cancer are over the age of 65. Average age of diagnosis is 70 (2).

Incidence VS Cigarette Smoking

Current cigarette smoking

13 of every 100 adults aged 18–24 years (13%)
Nearly 18 of every 100 adults aged 25–44 years (17.7%)
17 of every 100 adults aged 45–64 years (17.0%)
More than 8 of every 100 adults aged 65 years and older (8.4%)

Centers for Disease Control (13)
How can Lung Cancer Screening change those statistics?

- Lung Cancer Screening with Low-dose Computerized Tomography (LCDT) of high-risk patients can lead to a 20% overall reduction in mortality versus chest radiography (7).
- Translates to 18,000 lives saved each year with Lung Cancer Screening on a national level (8).
- Incorporate Smoking Cessation into screening program.
- Data from 5 lung cancer screening trials showed a 10-13% overall quit rate among smokers being screened for lung cancer (9) versus general population at 6.2% (10).

Criteria for High Risk Patients

- Eligibility criteria: for CMS
  - Age 55 – 77 years (USPSTF recommends age 80)
  - Asymptomatic (no signs or symptoms of lung cancer)
  - Tobacco smoking history of at least 30 pack-years (one pack-year = smoking one pack per day for one year; 1 pack = 20 cigarettes)
  - Current smoker or one who has quit smoking within the last 15 years
  - 1 caveat – smoke-free for 15 years or develops a health problem limiting life expectancy or the ability or willingness to have curative lung surgery.

Guidelines for Lung Cancer Screening Programs

- Using CMS Criteria – over ½ the patients qualify for Medicare – age 65
- For the initial LDCT lung cancer screening service: lung cancer screening counseling & shared decision making visit
- Must have & appropriately documented
- Eligibility document high risk criteria
- Include at least one decision aid
Counseling Session

- Ensure understanding adherence to annual lung cancer LDCT screening
- Discuss the impact of any comorbidities
- What is their ability or willingness to undergo diagnosis and treatment if they have a positive scan?
- Discuss the importance of maintaining cigarette smoking abstinence if former smoker; or the importance of smoking cessation if current smoker
- Provide information about tobacco cessation interventions
- Written order for lung cancer screening with LDCT

Decision Aids

- Benefits and harms of screening
- Follow-up diagnostic testing
- Rates of over-diagnosis
  - 1 in 5 cancers diagnosed
- False positive rate (365/1,000)
- Total radiation exposure (1.5mSv)

Patient Information

Joe Smith
59 years
1522 E. 5th St., Town, State
555-0000 5/6/2017

- DOB
- Pack-year smoking history
- Current smoking status
- Former smokers: # years since quitting
- Asymptomatic
- Provider’s National Provider Identifier (NPI)

Karen M. Sorrie, ARNP
Radiologist Criteria
- Board certification or board eligibility with the American Board of Radiology or equivalent organization
- Documented training in diagnostic radiology and radiation safety
- Involved with supervising or interpreting at least 300 chest CTs in the past 3 years
- Documented continuing medical education per American College of Radiology standards
- Perform screening at an approved radiology imaging facility

Radiology Facility
- Performs LDCT with volumetric CT dose index (CTDIvol) of ≤ 3.0 mGy (milligray) for standard size patients with accommodations for smaller or larger patients
- Utilizes a standardized lung nodule identification, classification and reporting system
- Makes available smoking cessation interventions for current smokers
- Collects and submits data to a CMS-approved registry for each LDCT lung cancer screening performed.

L-RADS
Lung Reporting and Data System
American College of Radiology (ACR)

<table>
<thead>
<tr>
<th>Finding</th>
<th>L-RADS Score</th>
<th>Assessment</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No nodules</td>
<td>L1</td>
<td>Negative</td>
<td>LDCT, 12 months</td>
</tr>
<tr>
<td>Solid or non-solid, &lt;6mm</td>
<td>L2</td>
<td>Benign pulmonary findings</td>
<td>LDCT, 12 months</td>
</tr>
<tr>
<td>Nonsolid, 6-10mm</td>
<td>L3a</td>
<td>Probable benign pulmonary findings</td>
<td>LDCT, 6 months</td>
</tr>
<tr>
<td>Solid, 6-8mm, or nonsolid, &gt;10</td>
<td>L3b</td>
<td>Indeterminate</td>
<td>LDCT, 3 months</td>
</tr>
<tr>
<td>Solid, ≥8mm, or any solid endobronchial</td>
<td>L4</td>
<td>Potentially significant</td>
<td>PET/CT, Needle Biopsy</td>
</tr>
</tbody>
</table>

L-RADS Score: 10
CMS-approved Registry

- Currently, there is only 1 approved:
  - The American College of Radiology (ACR) Lung Cancer Screening Registry™

- Purpose: monitor physician and facility performance quality; provide comparisons & develop benchmarks
- Many requirements for approval as registry
- Primarily serves to provide CMS with data and ensure LDCT for screening is being performed with quality standards

Minimum Data Collection Required

<table>
<thead>
<tr>
<th>Facility Identifier</th>
<th>Radiologist (reading) National Provider Identifier (NPI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Identifier</td>
<td>Radiologist (reading) National Provider Identifier (NPI)</td>
</tr>
<tr>
<td>CT scanner Manufacturer, Model.</td>
<td>Indication Lung cancer LDCT screening – no signs or symptoms of lung cancer</td>
</tr>
<tr>
<td>Indication Lung cancer LDCT screening – no signs or symptoms of lung cancer</td>
<td>System Lung nodule identification, classification and reporting system</td>
</tr>
<tr>
<td>Smoking history Current status (current, former, never). If former smoker, years since quitting. Pack-years as reported by the ordering practitioner. For current smokers, smoking cessation interventions available. Effective radiation dose CT Dose Index (CTDvol).</td>
<td></td>
</tr>
<tr>
<td>Screening</td>
<td>Screen date/Initial screen or subsequent screen</td>
</tr>
</tbody>
</table>

What the registry adds to the program

- Additional staff needed (data collection and submission)
- Cost to join the registry ($1,000-10,000/year depending on number of sites and radiologists involved)
- Cost for computer software to gather, organize, and submit data
- Ability to establish benchmarks
- Research to improve practice
Referrals
- Primary Care Physicians/NPs/PAs Office- health coaches initial screen
- Advertise the program- flyers, brochures for physician offices
- Have a “meet and greet”
  - Set it up for early morning bring breakfast
  - Talk to the office manager- when is a good time?
  - Provider meetings- make a visit
  - Make it a one stop shop for Primary Care Providers
    - The easier the better
    - Refer and their part is done

Program scheduler calls patient for intake evaluation
- Do they meet criteria
- Insurance information
- Prior authorization will be needed
- Schedule patient for screening visit
- Screening Program provides follow-up reminders to patient yearly
- Communicates results and follow up to Primary Provider

Patient Clinical Pathway
Patient referral

Intake Criteria Demographics Insurance

Prior Auth and Schedule Patient

Results Reporting to Patient, Primary provider, Registry

Low-Dose CT

Smoking Cessation if applicable

Mail with ARNP Review Decision Aid

Plan for follow up

Reporting to Patient, Primary provider, Registry

Low-Dose CT

Smoking Cessation if applicable
### Plan for Follow-Up
- Ensure good communication is in place
- Based on results - are they coming back in 3, 6, 12 mos?
- Does the patient need additional appointments for Pulmonary Intensivist - possible needle biopsy, Endobronchial Ultrasound (EBUS)?
- Thoracic Surgery? Oncology?
- How will you keep track of the patients year after year?
- Is there a registrar to submit to the registry?

### Integrated Software
- Is there a system to set up reminders to you and the patient?
  - LUNG-VIEW
  - The Philips solution
  - PenLung™ - LDCT Lung Screening Management System
  - Aspen™ Lung Features
  - DynaLync from Invivo
- All advertise specialized programs for tracking patients, nodules
- Some link to the ACR Registry for easy reporting

### Challenges and Barriers
- Turf wars - thoracic surgery vs pulmonary intensivist
- The ARNP currently managing the patients is part of the cardiothoracic team
- ARNP gets referral, provides cessation education, orders the CT
- Patient will then be referred to Pulmonary RN who will keep track of any patient with L-RADS 3a, 3b, or 4
- Patients with L-RADS 1 or 2 go back to Primary Provider
- We have a lung tumor registrar tracking the nodules and submitting to ACR Registry
Lung Nodule Conference
Primary Stakeholders

- Presenting L-Rads 3 and 4
- Radiology
- Thoracic Surgery
- Pulmonary MDs & RN
- APRN
- Med/Onc optional
- Pathology
- In addition to community wide Lung Tumor Conference each Friday

Codes for Billing

- G0296-service is for eligibility determination & shared decision making visit
- G0297-LDCT lung cancer screening
  - First year: Before the first lung cancer LDCT screening, Medicare beneficiaries must receive a counseling and shared decision making visit
  - Subsequent years-just written order given during an appropriate visit
  - To bill above, patient must have ICD-10 code Z87.891-personal history of tobacco use/personal history of nicotine dependence

Smoking Cessation Billing

- Medicare will allow two individual tobacco cessation counseling attempts per year during which each attempt can include up to four intermediate or intensive sessions, for a maximum benefit of up to eight sessions per year.
- 99406 (smoking and tobacco cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes) wRVU .24
- 99407 (smoking and tobacco cessation counseling visit; intensive, greater than 10 minutes), wRVU .38

Documentation: these are time-based services requiring documentation of the time spent providing the service.
  - (e.g., five minutes spent discussing smoking cessation options, patient has set goal to reduce number of cigarettes to 3 per day by next visit).
QUESTIONS?

Decision Aid

Resources

http://www.shouldiscreen.com (University of Michigan-online tool)

http://lungcancerscreeningresources.org (American Lung Assoc.)


AHRQ = Agency for Healthcare Research and Quality

References


References (continued)


