An Update on Lung Cancer Screening Policy and the Role of Quitlines

Robert J. Volk, PhD
Vance Rabius, PhD
The University of Texas MD Anderson Cancer Center

North American Quitline Consortium
NAQC Conference 2015
August 18, 2015, Atlanta, GA
Disclosures

Funding Acknowledgement

• This work was partially supported through a Patient-Centered Outcomes Research Institute (PCORI) Award (CER-1306-03385). This work was supported in part by a grant from The University of Texas MD Anderson Cancer Center Duncan Family Institute for Cancer Prevention and Risk Assessment.

Disclaimer

• All statements in this report, including its findings and conclusions, are solely those of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.
Overview

1. Review evidence about the benefits and harms of lung cancer screening with low-dose computed tomography.

2. Describe recent changes to lung cancer screening policy in the U.S.

3. Define the main elements of a “shared decision making and patient counseling visit” for referral of Medicare patients to lung cancer screening programs.

4. Explore the implications these policy changes for quitline service providers.
The National Lung Screening Trial (NLST)

Randomized >53,000 heavy smokers to...
- Low-dose computed tomography (LDCT) or chest x-ray
- 3 annual screens
- Followed 6.5 yrs

Reduced lung cancer deaths by 16-20%.

A game changer!

NNS = 320

But…

…lung cancer screening with LDCT carries potential harms:

- Radiation exposure (?)
- High positive rate:
  - 20-25% per scan
  - ~40% if screened annually for 3 years
- Invasive procedures
- Incidental findings (may be a benefit)
- Overdiagnosis rate estimated at 10-20%

Only 1 in 20 people with an abnormal result are diagnosed with lung cancer.

Response from the Healthcare Community

A $99 lung scan could save your life. Find out if you’re a good candidate.

CT scans for smokers offered for $99 in hopes of catching lung cancer early

Direct-to-consumer marketing campaigns

New Clinical Guidelines
ACS, ASCO, ACCP, NCCN (2012, 2013)
All emphasize the importance of an informed/shared decision-making process!

Smoking cessation is essential!
Lung Cancer Screening Policy

- Update of 2004 recommendation.
- Triggered largely by publication of NLST.
- Used comparative modeling to determine optimal screening strategy
  - Most efficient strategy: interval, age at initiation/stopping, pack-year threshold, yrs since quit

The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged **55 to 80 years** who have a **30 pack-year smoking history** and **currently smoke or have quit within the past 15 years**.

Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.

*Released Dec. 2013.*

Other considerations: **Smoking cessation counseling**

1. Persons referred by a PCP should receive counseling before referral.

2. For persons who present for screening without a referral (eg, “self-refer” to a screening center), incorporating smoking cessation counseling is encouraged.

*Clear implications for role of quitlines in lung cancer screening programs!*

USPSTF now makes coverage policy

• ACA mandates first dollar coverage for all preventive services that receive an **A or B recommendation** from the USPSTF.

• Fundamental change in USPSTF role:
  • Historically, USPSTF provided impartial assessment of quality of evidence
  • Encouraged policy makers to “place science in the context of making decisions”

_A’s and B’s are now covered!_

Lung cancer screening with LDCT now covered for Medicare population.

CMS: Beneficiary Eligibility

- Age 55 – 77 years
  - USPSTF uses age 80 as upper limit
- Asymptomatic (no signs/symptoms of lung cancer)
- 30+ pack-year smoking history
- Current smoker or quit within the last 15 years
Written order for LDCT:

• Initial service: beneficiary receives written order during lung cancer screening and shared decision making visit from physician or qualified non-physician.

• Subsequent service: beneficiary receives written order during any appropriate visit from physician or qualified non-physician.
1. Determination of beneficiary eligibility

- Age
- Absence of symptoms
- “Specific calculation of cigarette smoking pack-years”
- Number years since quit

Documented in medical record
2. Shared decision making, including:
   - Use of 1 or more decision aids, to include...
   - Benefits, harms, follow-up diagnostic testing, over-diagnosis, false positive rate, total radiation exposure.

Documented in medical record
3. Counseling on importance of adherence to annual LDCT, impact of comorbidities and ability or willingness to undergo diagnosis and treatment.

Documented in medical record

4. Counseling on importance of maintaining cigarette abstinence, or furnishing information about tobacco cessation services.

Documented in medical record
5. “If appropriate,” furnishing a written order containing the following:

- Date of birth
- Actual pack-year history (number)
- Current smoking status, number years since quit
- Statement beneficiary is asymptomatic
- NPI of ordering practitioner

Documented in medical record
Interventions to promote informed decisions about lung cancer screening

Study aim:

Evaluate a video-based patient decision aid about lung cancer screening when delivered to patients of tobacco cessation quitlines in promoting informed decisions about lung cancer screening.

PCORI-CER-1306-03385; May 1, 2014 – April 30, 2017.
Study Design

Figure 2. Schema for the Randomized Trial.

- Group A Decision Aid (N=200)
  - Receive Decision Aid
  - 1-week follow-up assessment
    - Preparation for Decision Making Scale
    - Decisional Conflict Scale
    - Knowledge
    - Screening intention

- Group B Educational Booklet (N=200)
  - Receive Educational Booklet
  - 3-month and 6-month follow-up assessments
    - Knowledge
    - Screening behavior

Tobacco quitline patients eligible for lung cancer screening

PCORI-CER-1306-03385; May 1, 2014 – April 30, 2017.
## The Research Team at MD Anderson

<table>
<thead>
<tr>
<th>Member</th>
<th>Role on project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert J. Volk, PhD</td>
<td>Principal Investigator, decision scientist</td>
</tr>
<tr>
<td>Suzanne K. Linder, PhD</td>
<td>Risk communication, measurement expert</td>
</tr>
<tr>
<td>Scott B. Cantor, PhD</td>
<td>Clinical decision analyst</td>
</tr>
<tr>
<td>Therese B. Bevers, MD</td>
<td>Cancer prevention physician (Director, Cancer Prevention Center)</td>
</tr>
<tr>
<td>Reginald F. Munden, MD, DMD, MBA</td>
<td>Diagnostic radiology, lung cancer screening expert (NLST site PI)*</td>
</tr>
<tr>
<td>Vance A. Rabius, PhD</td>
<td>Tobacco quitline expert</td>
</tr>
<tr>
<td>Paul M. Cinciripini, PhD</td>
<td>Smoking cessation expert (Director, Tobacco Treatment Program)</td>
</tr>
<tr>
<td>Ludmila M. Cofta-Woerpel, PhD</td>
<td>Co-Investigator (Assistant Professor, Behavioral Science)</td>
</tr>
<tr>
<td>Heather Lin, PhD</td>
<td>Biostatistician</td>
</tr>
</tbody>
</table>
The Research Team at Information & Quality Healthcare

<table>
<thead>
<tr>
<th>Member</th>
<th>Role on project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pamela G. Luckett, MCC, LPC, CTTS Director, IQH Tobacco Quitline</td>
<td>Co-investigator, consortium/contractual arrangement with Information &amp; Quality Healthcare (IQH), the primary quitline recruitment site for this project.</td>
</tr>
</tbody>
</table>

- Recruiting new clients at intake
- Recruiting existing clients via mailed invitations

Looking to add participating states!

PCORI-CER-1306-03385; May 1, 2014 – April 30, 2017.
Our video-based patient decision aid

Lung Cancer Screening: Is it right for me?

A video decision aid about low-dose CT scans to find lung cancer

PCORI-CER-1306-03385; May 1, 2014 – April 30, 2017.
Our video-based patient decision aid

PCORI-CER-1306-03385; May 1, 2014 – April 30, 2017.
Implications of new lung cancer screening policy for quitlines

...working with primary care providers:

• Partner with primary care organizations to promote awareness of quitline services.
• Direct outreach to primary care providers about available services.

...working with radiology screening centers:

• Partner with radiology groups (eg, American College of Radiology) to promote awareness of quitline services.
• Explore novel, multi-component tobacco cessation programs for use by radiology centers.
Implications of new lung cancer screening policy for quitlines

...for quitline service providers:

• Training in lung cancer screening eligibility and resources
  • eg, “talking points for callers”

• Dissemination of high quality decision support interventions (via websites, mobile devices, etc)

• Partner with radiology centers in maintaining registries of patients who seek screening:
  • Outcome data – cessation rates
Concluding comments

• We are in the midst of a national experiment in lung cancer screening implementation.
• We cannot lose sight of the importance of smoking cessation and abstinence.
• Quitlines should play a key role in meeting this mandate.
Questions and discussion

Thank you!