Examining the Smokescreen: Patient and Provider Attitudes and Practices around Lung Cancer Screening

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Presented at
The 138th Annual Meeting of the American Public Health Association
Denver, CO • November 6–10, 2010
Presenter Disclosures

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No relationships to disclose.
Acknowledgements

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Centers for Disease Control and Prevention
- Amy DeGroff, PhD, MPH
- Susan Henderson, MD

RTI International
- Cindy Soloe, MPH
- Christina Lynch, MS
- Claudia Squire, MS
Problem

- Current lack of conclusive evidence on effectiveness of lung cancer (LC) screening
  - CT screening (CT), chest x-rays (CXR), sputum cytology

- Potential benefit of screening is to detect LC early when treatment may be more effective
Study Objectives

- Conduct formative research to gather information from adult smokers and primary care physicians about experiences and practices related to LC screening and testing

- Assess the knowledge, attitudes, and behaviors related to preventive cancer screenings among adult smokers and primary care physicians
Methods

- Focus group methodology

- Physicians
  - Family medicine, Internal Medicine, General Pract.
  - Licensed in U.S.
  - Practice 20 hrs/wk in nonacademic or government setting

- Smokers
  - Receive health insurance
  - Visited a doctor within the last 2 years
  - Smoked at least 20 pack years
    - Self-reported number packs smoked per day X number of years smoking
Sample: Physicians

- FGs segmented by whether they refer patients who smoke for LC screening
  - “Would you order lung cancer screening for an otherwise healthy, 50 year-old current smoker who has smoked one pack of cigarettes per day for the past 20 years?”
- 3 FGs with referring physicians and 2 FGs with non-referring physicians
- 21 males and 7 females (28 total)
- Race – 21 white, 6 Asian American, 1 African American
Sample: Smokers

- FGs segmented by gender
- 54 males and 53 females (107 total)
- Age
  - 41 to 67 years old
- Education
  - 3 less than a HS education, 9 some HS, 27 HS, 1 AA, 42 some college, 21 college grads, and 4 postgraduate
- Race
  - 61 white, 42 African American, 1 American Indian, 1 Hispanic, and 2 categorized themselves as being of two races
Analysis

- Field notes collected as part of data collection and FGs audio-recorded
- Developed individual top-of-mind summary reports for each FG
- Entered verbatim transcripts for each FG into qualitative software program ATLAS.ti (version 5.6.1)
- Applied constant comparative method to develop codes based on data
- Identified themes and refined codes
Key Findings: Physicians

■ Little distinction between physicians who refer patients for LC screening and those who do not

■ Knowledge about screening effectiveness doesn’t alone determine physicians’ LC screening practices
  ● Other influencing factors include fear of lawsuits, reimbursement for procedure, and patient requests
Key Findings: Smokers

- Only two participants of 107 received LC screening tests (both via CXR and one also MRI)
- Most underreported to their doctor how much they smoked
- The most common piece of advice smokers had for physicians was to be supportive of quitting attempts and provide specific quitting resources
  - Others emphasized prevention as opposed to cessation
Most were aware that no current guidelines address LC screening for asymptomatic patients

U.S. Preventive Services Task Force Guidelines for Screening and American Cancer Society were named most frequently as guideline sources
Physicians: Practices

7 factors influencing decision to screen for LC:

1. Perception of CXR/CT effectiveness
2. Attitudes toward recommended guidelines and literature
3. Practice experience
4. Patient risk
5. Reimbursement for screening
6. Concern about litigation
7. Patient request
Physicians: Practices (cont’d)

- Reported it is easier to be reimbursed for CXR by reporting patient as a smoker or reporting symptoms (e.g., persistent cough)
  - CT is less likely to receive reimbursement
- Order screening tests at patient request
  - To defend against potential lawsuits and alleviate patient fears
  - Regardless of knowledge of test efficacy
Physicians in these FGs who’ve been in practice longer screen less

Main perceived risk factor for LC is cigarette use followed by
  - family history
  - immune-compromised status
  - personal history of cancer
  - secondhand smoke exposure
  - preexisting pulmonary disease
Smokers: Knowledge and Awareness

- Limited knowledge about LC screening tests and their availability
- High denial about personal risk of developing LC
Smokers: Gender-Specific Findings

- **Males**
  - Were less aware of types of available screenings and medical terminology overall compared to females
  - Reported no maximum cost that would force male participants to quit smoking
  - Did not attribute their illnesses (e.g., heart attacks, bypass surgeries, lung issues) to smoking habits

- **Females**
  - Were not aware of LC screening tests but expressed an interest in getting tested once they learned such a test exists
  - Reported smoking restrictions in hospitals and pregnancy as reasons for quitting temporarily
Recommendations

- More clinician education on evidence of LC screening
  - Especially benefits of tobacco prevention vs. early LC detection
- Greater support for cessation
- Support for informed decision making around screening
- Interventions to increase adherence to clinical guidelines
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