National Lung Screening Trial Patient and Physician Guide

Study Findings: Low-dose CT versus Chest X-ray screening

53,454 current and former smokers were randomly assigned to be screened once a year for 3 years with low-dose CT or chest X-ray. Here's what happened after **an average of 6.5 years**:

	Low-dose CT 26,722 people		Chest X-ray 26,732 people
Benefit: How did CT scans help compared to chest X-ray, an ineffective screening test?			
3 in 1,000 fewer **died from lung cancer**	18 in 1,000	*versus*	21 in 1,000
5 in 1,000 fewer **died from all causes**	70 in 1,000	*versus*	75 in 1,000
Harm: What problems did CT scans cause compared to chest X-ray?			
223 in 1,000 more had at least one **false alarm**	365 in 1,000	*versus*	142 in 1,000
18 in 1,000 more had a **false alarm leading to an invasive procedure,** such as bronchoscopy, biopsy, or surgery	25 in 1,000	*versus*	7 in 1,000
2 in 1,000 more had a **major complication** from Invasive procedures	3 in 1,000	*versus*	1 in 1,000

Most important thing you can do

DON'T SMOKE. Regardless of your screening decision, avoiding cigarettes is the most powerful way to lower your chance of dying overall or suffering or dying from a variety of diseases, such as lung cancer, emphysema, heart or vascular disease. For example, at age sixty-five, 89 in 1,000 male current smokers will die of lung cancer in the next 10 years versus 4 in 1,000 never smokers. For women, the corresponding figures are 55 in 1,000 versus 5 in 1,000.

For help quitting, call 1-800-QUIT-NOW

(http://www.cancer.gov/types/lung/research/NLSTstudyGuidePatientsPhysicians.pdf)

Overview of the Evidence, Policy, and Practice Issues: Potential Questions for Discussion in Session 1

- What are the potential benefits and harms of LDCT screening?
  - Do they differ in the community from the controlled trial setting?
- What evidence is still needed for effectiveness in practice?
- What does CMS cover and what additional evidence does it need?
- What is needed for patient counseling and shared decision making?
- What are the challenges faced by primary care physicians in implementation of lung cancer screening?
  - What strategies or resources would help?
- What are the implications for clinicians deciding not to offer screening because of concerns about harm vs. benefit?