

Low Dose CT Lung Cancer Screening Update



David Kenny DO
Atlantic Medical Imaging

Atlantic Medical Imaging is One of 75 Medical Centers Applauded by the Lung Cancer Alliance

Lung Cancer Alliance Congratulates 75 Medical Centers For Screening Program

Today, Lung Cancer Alliance (LCA) applauded over 75 medical centers nationwide that have announced they will begin lung screening for those at risk as part of their continuum of multi-disciplinary care for lung cancer. These sites have committed to provide clear information based on current evidence on who is a candidate for lung cancer screening, and to comply with comprehensive standards based on best practices developed by the National Comprehensive Cancer Network (NCCN) and the International Early Lung Cancer Action Program (IELCAP) for controlling screening quality,

Sub-specialized radiologist interprets study same day

- Discuss the findings with patient
- Smoking cessation

AMI patient tracking

- program similar to BIRADS

How does AMI screen?

At scheduling detailed questions are asked and insurance information obtained

- Specified criteria
- Low dose CT procedure (ASIR/SafeCT)
- No oral or intravenous contrast needed

Patient is given information on lung smoking cessation programs and has the option of reviewing the scan with the radiologist

What should screened patients know?

What is a positive screen?

- Probability of false positive

What if I have a positive screen

- Most likely follow up studies

Abnormalities unrelated to lung cancer

- Lung, esophageal, cardiac, mediastinal, renal, adrenal, lymphoid and vascular abnormalities

What if my screen is negative?

- Screening is a process not a test

Radiation risk

Low dose CT at AMI



- Average radiation dose for protocol from NLS approximately 2 m Sv (natural background 3.1 mSv/year, chest xray 0.1 mSv)
- Using ASIR or Safe CT
 - Even lower, approx 1 mSv (or less) at AMI
 - 2 Cases from last week 0.6 mSv
 - Additional cancer risk 0.0028%
 - Baseline cancer risk 44.9 %
 - Comparable to 6 chest xrays

Low dose CT at AMI



- Safe CT and ASIR
 - Iterative reconstructive algorithm
 - More efficient use of photons enabling even lower doses with maintenance of the highest quality
- All AMI offices have this equipment
 - All patients scanned with NEW LOW DOSE protocols

AMI Lung Cancer Screening database

- November 2011 to present
- 1570 screenings
- All individuals meet criteria for screening by NCCN and ACR



AMI LCS database

- 1.0 % lung cancer
- 0.3 % other cancers
- 32 % normal
- 66 % had nodules



AMI LCS database

- STAGE 1A 27 % (3 pts)
- STAGE 2A 18 % (2 pts)
- STAGE 4 45 % (5 pts)



- NLST estimated 1 life saved for every 350 screened

THE END

