Early Diagnosis of Mesothelioma and Lung Cancer in Prior Asbestos Workers using Low-Dose Computed Tomography

Cross-sectional views through the chest
pleural plaques:
- reliable marker for asbestos exposure
- indicator of increased risk for malignant mesothelioma
pleural plaques on CT
thickness
area / volume
shape (flat or lobulated)
density
calcifications?
involved pleura (costal, diaphragmatic, mediastinal)
symmetry?
fluid?
malignant mesothelioma
Baseline low-dose CT

- indeterminate nodules (≥5 mm solid or ≥8 mm non-solid)
  - or
- suspicious plaques lobulated, asymmetric, effusion

6 months f/u

- no change
  - annual repeat
- growth
  - biopsy etc.
- resolved (mucous)
  - annual repeat
- stable
  - bronchoscopy

3 months f/u

- suspicious nodules (≥15 mm) or mass-like plaques with effusion
  - immediate biopsy

annual repeat

bi-annual repeat
How do I qualify for the study?

To qualify you must be:

- 30 years of age or older
- asbestos exposure at least 20 years ago and/or documented pleural plaques
- be in general good health
- no prior cancers (except non-melanotic skin cancer)
asbestos CT screening at PMH

• Study started March 2005
• 1287 enrolled
• 13 lung cancers found
• 8 pleural mesothelioma found
• 4 peritoneal mesothelioma found
Distribution of 64 Malignancy in 1287 participants

- Lung Car 20%
- Pleural 13%
- Peritoneal 6%
- Other malignancy 61%

Other Malignant 39
Thank you for your support