

Screening for Lung Cancer

A recently published article in the New England Journal of Medicine describe the screening, diagnosis, and limited treatment results from the initial round of screening in the National Lung Cancer Screening Programme in the United States.

Participants with at least 30 pack-years of smoking and asymptomatic were randomly assigned to undergo annual screening, with the use of either low-dose CT or chest radiography, for 3 years. Nodules or other suspicious findings were classified as positive results.

53,439 eligible participants were randomly assigned to a study group (26,715 to low-dose CT and 26,724 to chest radiography); 26,309 participants (98.5%) and 26,035 (97.4%), respectively, underwent screening. A total of 7191 participants (27.3%) in the low-dose CT group and 2387 (9.2%) in the radiography group had a positive screening result; in the respective groups, 6369 participants (90.4%) and 2176 (92.7%) had at least one follow-up diagnostic procedure, including imaging in 5717 (81.1%) and 2010 (85.6%) and surgery in 297 (4.2%) and 121 (5.2%). Lung cancer was diagnosed in 292 participants (1.1%) in the low-dose CT group versus 190 (0.7%) in the radiography group (stage 1 in 158 vs. 70 participants and stage IIB to IV in 120 vs. 112). Sensitivity and specificity were 93.8% and 73.4% for low-dose CT and 73.5% and 91.3% for chest radiography, respectively.

The NLST initial screening results are consistent with the existing literature on screening by means of low-dose CT and chest radiography, suggesting that a reduction in mortality from lung cancer is achievable at U.S. screening centers that have staff experienced in chest CT

Reference:

[Results of Initial Low-Dose Computed Tomographic Screening for Lung Cancer](#). The National Lung Screening Trial Research Team. N Engl J Med 2013;368:1980-91. DOI: 10.1056/NEJMoa1209120

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