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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Randomization adequate?** | **Allocation concealment adequate?** | **Groups similar at baseline?** | **Maintain Comparable Groups?** | **Eligibility criteria specified?** | **Outcome assessors masked?** | **Care provider masked?** |
| NLST54 | Yes | Yes | Yes | Yes | Yes | Mortality outcome: Yes Incidence outcome: No | NR |
| DANTE51 | Yes | Unclear, allocation concealment reported but participants randomized during phone interview | No, 35% with pulmonary problems in LDCT and 31% in controls | No, nearly twice the dropout rate in the controls vs. LDCT (166 vs. 91) | Yes | Unclear | NR |
| DLCST76, 52 | Yes | Unclear | Yes | Yes | Yes | Unclear | NR |
| MILD53 | Probably not | Yes | No; more obstructive pulmonary disease among LDCT compared with controls (81% vs. 72%), more current smokers in the control groups (90% vs. 68%), fewer former smokers in the LDCT group compared with controls (31% vs. 10%) | Not comparable | Yes | Mortality outcome: Yes Incidence outcome: No | NR |
| PLCO59 | Yes | Unclear | Yes | Unclear | Yes | Mortality outcome: Yes Incidence outcome: Unclear | No |
| Mayo87 | Yes | Unclear | Unclear | Unclear | Yes | No | No |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Patient masked?** | **Reporting of attrition, crossovers, adherence, and contamination** | **Loss to followup: differential/high** | **Intention-to-screen analysis** | **Post-randomization exclusions** | **Outcomes prespecified** | **Funding source** | **External validity** | **Quality Rating** |
| NLST54 | No | Yes | No | Yes | Yes | Yes | NIH | Good | Good |
| DANTE51 | No | Yes | Less followup in controls (31.5 months in controls vs. 35.7 months in LDCT group) | Yes | No | Yes | Italian Association for the Fight Against Cancer | Fair (only men) | Fair |
| DLCST76, 52 | No | Yes | Study reports less complete followup among controls | Yes | No | Yes | Government grant | Good | Fair |
| MILD53 | No | Yes | Significant differences in followup time (44.9 months in controls vs. 56 months in LDCT group) | Yes | No | Yes | Italian Association for Cancer Research; Italian Ministry of Health, the Lombardy Region; and the Cariplo Foundation | Good | Poor |
| PLCO59 | No | Yes | No | Yes | Yes | Yes | NCI | Good | Good |
| Mayo87 | No | Yes | No | Yes | No | Yes | NCI and Mayo Clinic | Good | Fair |

Abbreviations: DANTE = Detection and Screening of Early Lung Cancer by Novel Imaging Technology and Molecular Essays; DLCST = Danish Lung Cancer Screening Trial; LDCT = low-dose computed tomography; LSS = Lung Screening Study; MILD = Multi-centric Italian Lung Detection; NCI = National Cancer Institute; NIH = National Institutes of Health; NLST = National Lung Screening Trial; PLCO = Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial