## openMetaAnalysis: Risk of bias

## **Studies of interventions**

Study	Summary risk	Selection bias		Performance	Detection	Attrition	Reporting	Other biases
		Random sequence generation	Allocation concealment	- bias	bias	bias	bias	
Lung Screening Study (LSS) <sup>24,48,49</sup>	Unclear risk	Unclear Risk Not explicitly stated	Low risk Centralized randomization	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Unclear risk No endpoint verification was performed	Low risk Missing data balanced and too small to affect results.	Low risk	
DANTE <sup>25,31,50</sup>	High risk	Low risk Computerized randomization	Low risk Randomized in blocks of 4, stratified by center according to computer generated list.	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Low risk Outcome assessment was blinded	Low risk Missing data balanced and too small to affect results	Low risk	High risk Single center study. Significantly higher number of control subjects (166) declined enrollment compared to LDCT group (91). Investigators excluded 92 (46 each arm) "ineligible" allocated subjects from primary analyses. Discovered duplicate registrations (20) and test records (2) at final analyses;

								study numbers not consistent across reports. All subjects underwent a baseline chest x-ray and sputum cytology. Trial registered retrospectively 2007, but this is unlikely to affect selection of outcomes.
National Lung Screening Trial (NLST) <sup>4,51,52</sup>	Low risk	Low risk Computerized randomization	Low risk Centralized randomization	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Low risk Outcome assessment was blinded	Low risk Missing data balanced and too small to affect results	Low risk	
Nederlands Leuvens Longkanker Screeningsonderzoek (NELSON) <sup>53-55</sup>	Low	Low risk Computerized randomization	Low risk Centralized randomization	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Low risk Outcome assessment was blinded	Low Risk: Missing data balanced and too small to affect results.	Low Risk	
Danish Lung Cancer Screening Trial (DLCST) <sup>26,56,57</sup>	Unclear risk	Low risk Computerized randomization	Unclear risk Method of allocation concealment not described	Low risk No blinding or incomplete blinding, but review authors deem	Low risk Outcome assessment was blinded	Low risk Missing data balanced and too small to	Low risk	Unclear risk Participants who emigrated from Denmark were lost to follow-up. Single center study.

				this not to affect results.		affect results.		
Italian Lung study (ITALUNG) <sup>28,58,59</sup>	Unclear risk	Low risk Computerized randomization	Low risk Centralized randomization	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Low risk Outcome assessment was blinded	Low risk Missing data balanced and too small to affect results.	Low risk	Unclear risk 13% of LDCT subjects dropped out before imaging.
Multicentric Italian Lung Detection (MILD) <sup>27,60</sup>	High risk	High risk Method not detailed. Large imbalance of baseline characteristics including current smokers versus former.	Unclear risk Reported as "central stratified randomization"	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Low risk Outcome assessment was blinded	Low risk Missing data balanced and too small to affect results	Low risk	High risk Did not include control group until after enrolling 653 subjects. Baseline comparisons not reported for contemporaneously enrolled intervention and control subjects. Pooled results from annual and biennial subjects without justification. Initially planned as multicenter trial with planned sample size of 10,000. Ended up as single center study. Trial not properly registered, but this is unlikely to affect

								selection of outcomes.
German Lung Cancer Screening Intervention Trial (LUSI) <sup>29,61,62</sup>	Unclear	Low risk Computerized randomization	Low risk Centralized randomization	Low risk No blinding or incomplete blinding, but review authors deem this not to affect results.	Unclear risk Incident lung cancers were ascertained through annual visits (screening group) and questionnaires (control group). Investigators also used a regional cancer registry that was deemed to be incomplete. Mortality was ascertained through linkages with municipal registries, though some patients denied access.	Low risk Missing data balanced and too small to affect results.	Low risk	Trial not registered, but this is unlikely to affect selection of outcomes.
AME Thoracic Surgery Collaborative Group <sup>30</sup>	High risk	High risk Not explicitly stated; however, substantially more subjects were randomized to	Unclear risk Not explicitly stated	Low risk Blinding not described, but review authors deem this not to affect results.	Unclear risk Outcome assessment not described	Low risk	Low risk	Single center study. Trial not registered, but this is unlikely to affect selection of outcomes.

	LDCT (3550 vs.			
	3167).			