

Table S1 Search strategy

Database	Searches	Results	Type
PubMed	("multiple pulmonary nodules"[MeSH Terms] OR ("multiple"[All Fields] AND "pulmonary"[All Fields] AND "nodules"[All Fields]) OR "multiple pulmonary nodules"[All Fields] OR ("pulmonary"[All Fields] AND "nodules"[All Fields]) OR "pulmonary nodules"[All Fields]) AND ("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "incidence"[All Fields] OR "incidence"[MeSH Terms] OR "incidences"[All Fields] OR "incident"[All Fields] OR "incidents"[All Fields] OR ("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalance"[All Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields]))	2,030	Advanced
CNKI	"pulmonary nodules" AND ("detection rate" OR "incidence") in Chinese	234	Advanced

CNKI, China National Knowledge Infrastructure.

## Appendix 1 Modified Newcastle-Ottawa risk-of-bias scoring system

### *Representativeness of the sample*

- Low: samples are randomly selected and represent the general population.
- Some concerns: samples are selected with some criteria such as smoking history.
- High: samples contain only male or only participants with high risk of lung cancer.

### *Sample size*

- Low: sample size was  $\geq 1,000$  participants.
- Some concerns: sample size was between 300 and 1,000 participants.
- High: sample size was  $< 300$  participants.

### *Ascertainment*

- Low: studies with no criteria for pulmonary nodule.
- Some concerns: studies with some reasonable criteria for pulmonary nodule definitions.
- High: studies with stringent criteria for pulmonary nodules.

### *Quality of descriptive statistics reporting*

- Low: studies reported descriptive statistics to describe the population (e.g., age, sex, and smoking history).
- Some concerns: studies missed one descriptive statistic.
- High: studies missed more than one descriptive statistic.

**Table S2** Risk of bias across studies

Study	Representativeness	Sample size	Ascertainment	Descriptive statistics	Overall
The International Early Lung Cancer Action Program, 2006	Low	Low	Some concerns	Some concerns	Some concerns
The National Lung Screening Trial, 2013	Some concerns	Low	Low	Low	Low
Wilson <i>et al.</i> , 2008	Some concerns	Low	Low	Low	Low
Henschke <i>et al.</i> , 1999	Some concerns	Low	Low	Low	Low
Pedersen <i>et al.</i> , 2009	Some concerns	Low	Low	Low	Low
Field <i>et al.</i> , 2016	Some concerns	Low	Some concerns	Low	Low
Hendrix <i>et al.</i> , 2023	Low	Low	Low	Some concerns	Low
Ouyang <i>et al.</i> , 2019	Low	Low	Low	Some concerns	Low
Xu <i>et al.</i> , 2020	Low	Some concerns	No information	Some concerns	Some concerns
Pan <i>et al.</i> , 2020	Low	Low	High	Low	High
Wei <i>et al.</i> , 2022	Low	Low	Some concerns	Low	Low
Ji <i>et al.</i> , 2022	Low	Low	Low	Low	Low
Wu <i>et al.</i> , 2022	Low	Low	Low	Low	Low
Wu <i>et al.</i> , 2023	Low	Low	No information	Low	Low
Zhang <i>et al.</i> , 2023	Low	Low	No information	High	High
Tapio Vehmas, 2008	Low	Some concerns	No information	Low	Some concerns
Hall <i>et al.</i> , 2009	Some concerns	Some concerns	Low	Some concerns	Some concerns
Sigel <i>et al.</i> , 2020	Low	Low	No information	Some concerns	Some concerns
Rinaldi <i>et al.</i> , 2010	Low	High	No information	Some concerns	High
Gould <i>et al.</i> , 2015	Low	Low	Low	High	High
Lin <i>et al.</i> , 2020	Low	Low	No information	Some concerns	Some concerns
Xu <i>et al.</i> , 2020	Low	Low	Low	Low	Low
Li <i>et al.</i> , 2022	Low	Low	Low	Some concerns	Low
Zhao <i>et al.</i> , 2019	Low	Low	Low	Some concerns	Low
Zhang <i>et al.</i> , 2022	Low	Low	Low	Some concerns	Low
He <i>et al.</i> , 2018	Low	Low	Low	Some concerns	Low
Hammerschlag <i>et al.</i> , 2015	Low	High	Low	High	High
Yorgun <i>et al.</i> , 2010	Low	Low	No information	Some concerns	Some concerns
Becker <i>et al.</i> , 2012	Some concerns	Low	Some concerns	Some concerns	Some concerns
Klaveren <i>et al.</i> , 2009	Some concerns	Low	No information	Low	Some concerns
Pegna <i>et al.</i> , 2009	High	Low	Some concerns	Low	High
Infante <i>et al.</i> , 2008	High	Low	Low	Some concerns	High