

Table S1 Detailed search strategy of PubMed in this review

Items	Specification
Search string	("solid pulmonary nodule" OR "solid nodular lung cancer" OR "NSCLC solid nodule") AND ("growth kinetic" OR "growth" OR "volume doubling time" OR "VDT" OR "tumor doubling time") AND ("prognosis" OR "survival" OR "clinical outcome" OR "imaging" OR "pathology" OR "molecular mechanisms" OR "prediction")
Search keywords	<p>Study subject: solid pulmonary nodules, Solid nodular non-small cell lung cancer (NSCLC), NSCLC solid nodules</p> <p>Growth: growth heterogeneity, Volume doubling time (VDT), Tumor doubling time, Growth kinetics, Growth rate, Indolent growth, Rapid growth</p> <p>Prognosis and clinical management: prognosis, survival, clinical outcomes, risk stratification, personalized management, treatment strategy, follow-up strategy</p> <p>Imaging features and prediction: radiomics, computed tomography (CT) features, deep learning, artificial intelligence (AI), predictive modeling, baseline CT assessment</p> <p>Pathology and molecular mechanism: molecular mechanisms, tumor microenvironment, immune cell infiltration, single-cell transcriptomics, spatial transcriptomics, pathological subtype</p>
Additional terms	Immune microenvironment, genomic profiling, transcriptomic signatures, AI-powered prediction, longitudinal growth prediction, deep learning models, transformer models
Supplementary search	Manual search of references from included studies and guidelines (British Thoracic Society, Nederlands-Leuvens Longkanker Screenings Onderzoek, Lung-RADS, Fleischner)