Appendix 3. Extended content search strategy and testing its relative performance by replicating a published systematic review.

Table 1: Extended content search strategy

Patient-based	**Benefit-risk assessment**
Patient Preference [MeSH]	Attribute [tiab]
Patient Preference / psychology [MeSH Subheading]	Benefit [tiab]
Patient Preference / statistics & numerical data [MeSH Subheading]	Benefit-risk [All fields]
Patient Preference* [tiab]	Risk tolerance [All fields]
Patients preference [tiab]	Risk awareness [All fields]
Patient perception*[tiab]	Risk perception [All fields]
Perception [tiab]	Trade-off* [All fields]
Stated preference* [tiab]	Tradeoff* [All fields]
Treatment preference [tiab]	Efficacy [tiab]
Treatment satisfaction [tiab]	Safety [tiab]
Willingness [tiab]	Side effect* [tiab]
Willingness to pay [All fields]	Adverse event* [tiab]
Patient concerns [tiab]	Adverse reaction* [tiab]
Choice Behavior [MeSH]	Probability of occurrence [tiab]
Decision Making [MeSH]	Effectiveness [tiab]
Health Knowledge, Attitudes, Practice [MeSH]	Frequency [tiab]
Attitude to Health [MeSH]	Value [tiab]
Patient Acceptance of Health Care [MeSH]	Utility [tiab]
Patient Acceptance of Health Care/psychology*[MeSH]	Disutility [tiab]
	Accepta* [tiab]
	Maximum acceptable risk [All fields]
	Minimum acceptable efficacy [All fields]
	Acceptable regimen [tiab]
	Preferred treatment option [tiab]
	Patient-reported outcome* [tiab]
	Relative importance [tiab]

	Most preferred [tiab] Least preferred [tiab] Medication belie*[tiab] Discontinuation [tiab] Standard gamble[tiab] Discrete choice experiment [tiab] Conjoint analysis [tiab] Benefit risk assessment [MeSH] Risk Assessment [MeSH] Risk Reduction Behavior[MeSH] Drug-related side effects and adverse reactions/psychology [MeSH] Risk [MeSH] Treatment Outcome [MeSH] Drug Administration Routes [MeSH] Drug Administration Schedule [MeSH] Outcome and Process Assessment, Health Care [MeSH] Outcome Assessment, Health Care / methods [MeSH]

Table 2: Articles included in the systematic review on patient preferences for treatment of lung cancer [1] with corresponding keywords and MeSH terms

Reference	D*	ND*	Keywords / Free text words		MeSH terms	
			Patient-focused	Benefit-risk assessment of medicines	Patient-focused	Benefit-risk assessment of medicines
Kind et al. [2]		x	Health-state	Utility	Health Status	
Johnson et al. [3]	x			Side effects Relative importance Conjoint analysis	Patient Satisfaction	
Nafess et al. [4]	x			Utility	Attitude to Health	Treatment Outcome Drug-Related Side Effects and Adverse Reactions / psychology
Gironés et al. [5]	x		Patient preferences Patients' attitude	Treatment options Benefit Toxicities	Patient Preference Decision Making Choice Behavior / physiology	
Bridges et al. [6]	x		Patients' preferences Treatment preferences	Attributes Benefits Risks Conjoint analysis	Patient Preference	Treatment Outcome
Miller et al. [7]	x		Willingness to pay	Attribute Value Acceptable Discrete-choice conjoint survey	Decision Making Patient Acceptance of Health Care	
Mühlbacher et al. [8]	x		Patient preferences	Attributes Efficacy Side effects Mode of administration Discrete-choice experiment	Patient Preference Choice Behavior	
Lehman et al. [9]	x		Patient preferences	Attribute Benefit Acceptable toxicity Discrete choice experiment	Patient Preference	
Tong et al. [10]	x		Patient preferences	Attributes Treatment modalities Conjoint analysis	Patient Preference Patient Participation Decision Making	Risk
Fallowfield et al. [11]	x		Decision making	Benefit Toxicity Therapeutic aim	Decision Making	
Schmidt et al. [12]	x		Patient preferences Treatment preferences	Attributes Discrete choice experiment		
Bridges et al. [13]	x		Patient preferences	Attributes Efficacy Side effects Dosing regimen	Patient Preference / psychology Patient Preference / statistics & numerical data	
Sullivan et al. [14]	x		Treatment preferences	Attributes Values	Patient Participation Patient Preference / statistics & numerical data	
Sun et al. [15]	x		Patient preferences	Attributes Risk-benefit		

			Treatment preferences Willingness to pay	Discrete choice experiment		
Valenti et al. [16]	x		Patient preferences Willingness	Attributes Trade-off Benefit Adverse events Conjoint analysis	Patient Preference	

*D: Detected by the extended content search strategy combined, using AND, with a search string relevant to lung neoplasm and its treatment: Lung Neoplasm [MeSH] OR Antineoplastic Agents [MeSH] OR lung cancer [tiab]

**ND: Not detected by the extended content search strategy combined, using AND, with a search string relevant to lung neoplasm and its treatment: Lung Neoplasm [MeSH] OR Antineoplastic Agents [MeSH] OR lung cancer [tiab]

Table 3: Quality assessment of included studies in the systematic review on patient preferences for treatment of lung cancer [1], based on a practical tool developed to critically assess patient preference studies across methodologies [17]

Reference	External validity	Quality of construct representation	Minimization of the risk of construct-irrelevant variance	Quality of reporting and analysis	Other aspects that strengthen or weaken the study	Overall quality
Kind et al. [2]	High	Medium	Moderate	Low	No difference	Medium
Johnson et al. [3]	High	Medium	High	High	Weaken	Medium
Nafess et al. [4]	Medium	High	High	High	Weaken	Medium
Gironés et al. [5]	Medium	Low	Low	High	No difference	Medium
Bridges et al. [6]	Medium	High	Moderate	High	Weaken	Medium
Miller et al. [7]	Medium	High	High	High	Weaken	Medium
Mühlbacher et al. [8]	High	High	High	High	Weaken	High
Lehman et al. [9]	Low	Medium	Low	High	No difference	Medium
Tong et al. [10]	Medium	Low	Low	High	No difference	Medium
Fallowfield et al. [11]	Medium	Low	Low	High	Weaken	Low
Schmidt et al. [12]	Medium	High	High	High	No difference	High
Bridges et al. [13]	Low	High	Medium	High	No difference	Medium
Sullivan et al. [14]	Medium	Medium	Low	High	No difference	Medium
Sun et al. [15]	High	High	High	High	No difference	High
Valenti et al. [16]	Medium	Low	Low	High	No difference	Medium

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