Appendix 4. Voting percentages of modified Delphi method by working group members on outcome domains and case-mix factors.

Conclusion after 1st vote	Domain	Percentage vote for inclusion	Comments
	OUTCOME DOMAINS		
Include	Overall survival	100%	
	Treatment-related mortality	100%	
	Major surgical complications	100%	
	Major systemic therapy complications	100%	
	Global health status / Quality of life	100%	
	Cause of death	93%	
	Major radiation complications	93%	
	ECOG/WHO performance status	93%	
	Time from diagnosis to treatment	86%	
	Shortness of breath	80%	
	Duration of time spent in hospital at end of life	80%	
	Pain	73%	
	Fatigue	73%	
	Emotional functioning	67%	
	Cough	67%	
Debate Further	Progression-free survival	87%	Debated and agreed to exclude, since measurement correlates to frequency of follow-up imaging which is not standardized (ascertainment bias).
	Weight loss	60%	Debated and agreed to exclude since weight loss as an outcome is not measured in most common cancer and lung cancer PROMs, suggesting it is not the highest concern for lung cancer patients. This is likely because proximal causes of weight loss are more important to patients (e.g. loss of appetite, depression, disease progression).
	Physical function	60%	Debated and agreed to include since physical functioning (including ADLs, walking) is an important component of patient quality of life, as evidenced by its inclusion in many of the most common cancer and lung cancer PROMs.

	Dying in accordance with patient wishes / place of death	50%	Debated and the group felt strongly to include a measure about the quality of dying and death. Acknowledging the difficulties of this particular outcome, the group opted to include 'Place of death'.
	Cognitive functioning	47%	Debated and agreed to include since cognitive functioning is an important component of patient quality of life that can be affected in lung cancer by treatment and/or brain metastases as evidenced by its inclusion in many of the most common cancer and lung cancer PROMs.
	Social functioning	47%	Debated and agreed to include since social functioning (including interference with family life) is an important component of patient quality of life, as evidenced by its inclusion in many of the most common cancer and lung cancer PROMs.
	Hemoptysis	47%	Debated and agreed to exclude hemoptysis since although it is a frightening and potentially deadly symptom, though not frequently included in most common cancer and lung cancer PROMs.
Exclude	Major complications due to other interventions	40%	
	Role function / functional well-being	40%	
	Nausea and vomiting	40%	
	Pulmonary function	40%	
	Pain medication use	36%	
	Diarrhea	27%	
	Loss of appetite	21%	
	Metastasis-free survival	20%	
	Insomnia	13%	
	Constipation	13%	
CASE-MIX VARIABLES			
Include	Date of birth	100%	
	Sex	100%	
	Performance status	100%	
	Clinical stage	100%	
	Pathological stage	100%	
	Histology	100%	

	EGFR mutation status	94%	
	ALK translocation status	94%	
	Pulmonary function; FEV-1	94%	
	Smoking status	89%	
	Treatment intent	89%	
	Basis of diagnosis	89%	
	Comorbidities	88%	
	Ethnicity	83%	
	Patient-reported health status	72%	
	Completed treatment	72%	
Debate Further	*KRAS* mutation status	67%	Debated and agreed to exclude since there are no biologic therapies targeting the KRAS mutation. Agreed that the steering committee will review annually if KRAS or other mutations should be added to the set.
	Weight loss	65%	Debated and agreed to include as a well-established prognostic factor for survival.
	Pulmonary function; DLCO	65%	Debated and agreed to exclude, as FEV-1 was an adequate measure of pulmonary function.
	Synchronous lung tumor	56%	Debated and agreed to exclude, since this is captured by the clinical and pathological staging system.
	Educational level	53%	Debated and agreed to include as a marker for socio-economic status that is reliably measured, given that socio-economic status is a major determinant of patient outcomes.
	Marital status	44%	Debated and agreed to exclude as a lower priority case-mix measure, acknowledging it may be of some value in representing social support.
Exclude	Primary tumor laterality	39%	
	Bronchoscopy	39%	
	Proximity to proximal bronchial tree	35%	
	Living status	29%	
	Source of referral	28%	
	Family history of lung cancer	22%	

Consensus on each outcome and case-mix domain was reached through a pre-defined, systematic modified-Delphi method. Domains were proposed by the Project Team to the Working Group on the first call followed by group discussion on each item. After the call, Working Group members voted anonymously on the proposed domains in the Standard Set. Items receiving greater than or equal to 66% approval were included, while items receiving less than 40% approval were excluded. Domains falling in between these cutoffs were subject to further discussion in subsequent teleconferences and re-voted upon until consensus for inclusion or exclusion was reached.

Approval ratings included above correspond to first round voting results in response to the question: "Do you feel this outcome domain or case-mix variable should be included in the Standard Set for patients with lung cancer."

ECOG: Eastern Cooperative Oncology Group; WHO: World Health Organization; *EGFR:* Epidermal Growth Factor Receptor; ALK: Anaplastic Lymphoma Kinase; FEV-1: Forced Expiratory Volume-1; *KRAS:* Kirsten Ras; DLCO: Diffusing Capacity of the Lung