

Appendix: Patient-reported Outcome Measures

Standard patient questionnaires collected as part of patient-reported outcomes (PROMs) included:

EORTC QLQ-C30: A questionnaire developed to assess the quality of life of cancer patients. The QLQ-C30 is composed of both multi-item scales and single-item measures. These include a global health status/QoL scale, five functional scales, three symptom scales, and six single items. All of the scales and single-item measures range in score from 0 to 100. For global health status and functional scales, a higher score indicates better QoL. For symptom scales, a higher score indicates worse symptoms.

EORTC QLQ-BN20: A specialized questionnaire developed to assess the quality of life of patients undergoing chemotherapy or radiotherapy for brain tumors. It includes 20 items with four multi-item scales (future uncertainty, visual disorder, motor dysfunction, and communication deficit), and single-item symptom scales (e.g. headaches and seizures). When the questionnaire is scored, all scales and items range from 0 to 100, with a higher score representing worse symptoms.

EORTC QLQ-C30

EORTC QLQ-C30 scores at baseline and follow-up are presented in *Table S1*. We observe a moderate level of QoL at baseline (median score: 66.7, IQR: 58.3–83.3) that remained relatively constant over follow-up with a slight increase in median score 11 weeks after SDM (median score: 75.0, IQR: 54.2–83.3). On functional scales, patients reported the highest scores on the cognitive and social domains, though the median social functioning score declined in the 5 weeks following SDM from 100 (IQR: 83.3–100) to 66.7 (IQR: 50.0–83.3). Role functioning had the lowest median score throughout the observation period.

Fatigue and dyspnea were the most commonly reported symptoms at baseline, with a median score of 33.3 (IQR: 22.2–44.4 and 0.0–33.3 respectively). Median scores for appetite loss, pain, and nausea rose from 0.0 at baseline to 33.3 (IQR: 0.0–66.7), 25.0 (IQR: 0.0–33.3), and 16.7 (IQR: 0.0–50.0) at the first follow-up, and remained at these levels with the exception of pain which declined slightly to 16.7 (IQR: 0.0–33.3). These values are comparable with European references values for ES-SCLC patients [29].

EORTC-QLQ BN20

Table S2 shows that of the four multi-item scales, patients reported the highest levels on future uncertainty at baseline, with a median score of 33.3 and IQR 22.2–44. Of the symptom scales, hair loss was the most severe symptom; the median score of 66.7 at baseline rose to 100.0 (IQR: 66.7–100) five weeks after SDM. This may be related to chemotherapy treatments prior to making the PCI decision. Similarly, headaches, drowsiness, and itchy skin were reported to be most severe at the 5-week mark and declined by the 11-week mark.

Table S1 Patients' median EORTC QLQ-C30 scores at baseline, 5-week follow-up, and 11-week follow-up. Interquartile ranges are reported in parentheses. Scores range from 0-100. For global health status and the five functional scales, a score of 100 indicates the best quality of life. For symptom scales, a score of 100 indicates the worst symptoms.

EORTC QLQ-C30 (median, IQR)	Baseline (n=25)	5-week follow-up (n=18)	11-week follow-up (n=15)
Global health status/QoL	66.7 (58.3-83.3)	66.7 (50.0-81.3)	75.0 (54.2-83.3)
Functional scales			
Physical functioning	75.0 (60.0-80.0)	60.0 (40.0-73.3) [†]	73.3 (46.7-80.0)
Role functioning	66.7 (66.7-83.3)	66.7 (33.3-66.7)	66.7 (50.0-83.3)
Emotional functioning	75.0 (66.7-91.7)	79.2 (66.7-91.7)	83.3 (66.7-95.8)
Cognitive functioning	100.0 (83.3-100.0)	83.3 (66.7-95.8)	83.3 (66.7-100.0)
Social functioning	100.0 (83.3-100.0)	66.7 (50.0-83.3)	83.3 (66.7-100.0)
Symptom scales			
Fatigue	33.3 (22.2-44.4)	44.4 (44.4-88.9)	44.4 (33.3-80.6)
Nausea	0.0 (0.0-0.0)	16.7 (0.0-50.0)	16.7 (0.0-33.3)
Pain	0.0 (0.0-33.3)	25.0 (0.0-33.3)	16.7 (0.0-33.3)
Dyspnea	33.3 (0.0-33.3)	33.3 (33.3-66.7)	33.3 (33.3-66.7)
Insomnia	0.0 (0.0-33.3)	33.3 (8.3-66.7)	33.3 (0.0-50.0)
Appetite loss	0.0 (0.0-33.3)	33.3 (0.0-66.7)	33.3 (0.0-66.7)
Constipation	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-33.3)
Diarrhea	0.0 (0.0-0.0)	0.0 (0.0-33.3)	0.0 (0.0-33.3)
Financial difficulties	0.0 (0.0-0.0)	0.0 (0.0-33.3)	0.0 (0.0-16.7)

[†]Based on 17 observations due to one missing data point.

Table S2 Patients' median EORTC QLQ-BN20 scores at baseline, 5-week follow-up, and 11-week follow-up. Interquartile ranges are reported in parentheses. Scores range from 0-100, with 100 representing the worst quality of life/symptoms.

EORTC QLQ-BN20 (median, IQR)	Baseline(n=25)	5-week follow-up (n=18)	11-week follow-up (n=15)
Scales			
Future uncertainty	33.3 (22.2-44.4)	38.9 (22.2-63.9)	22.2 (11.1-44.4)
Visual disorder	0.0 (0.0-11.1)	16.7 (0.0-33.3)	11.1 (0.0-22.2)
Motor dysfunction	0.0 (0.0-11.1)	11.1 (0.0-33.3)	11.1 (0.0-22.2)
Communication deficit	0.0 (0.0-0.0)	0.0 (0.0-11.1)	0.0 (0.0-22.2)
Symptom scales			
Headaches	0.0 (0.0-0.0)	33.3 (8.3-33.3)	0.0 (0.0-33.3)
Seizures	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.0)
Drowsiness	0.0 (0.0-33.3)	33.3 (8.3-66.7)	33.3 (0.0-50.0)
Hair loss	66.7 (0.0-100.0)	100.0 (66.7-100.0) [†]	66.7 (16.7-100.0)
Itchy skin	0.0 (0.0-33.3)	33.3 (0.0-66.7) [†]	0.0 (0.0-33.3) [‡]
Weakness of legs	0.0 (0.0-33.3)	33.3 (0.0-33.3) [†]	0.0 (0.0-33.3)
Bladder control	0.0 (0.0-33.3)	0.0 (0.0-33.3) [†]	0.0 (0.0-0.0)

[†]Based on 17 observations due to one missing data point. [‡]Based on 14 observations due to one missing data point.