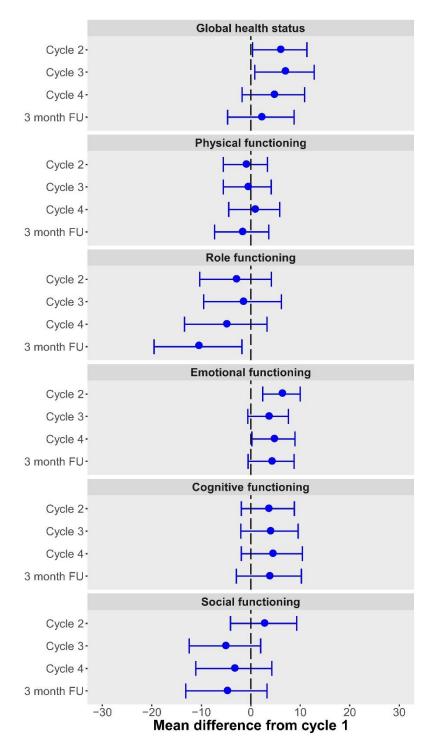
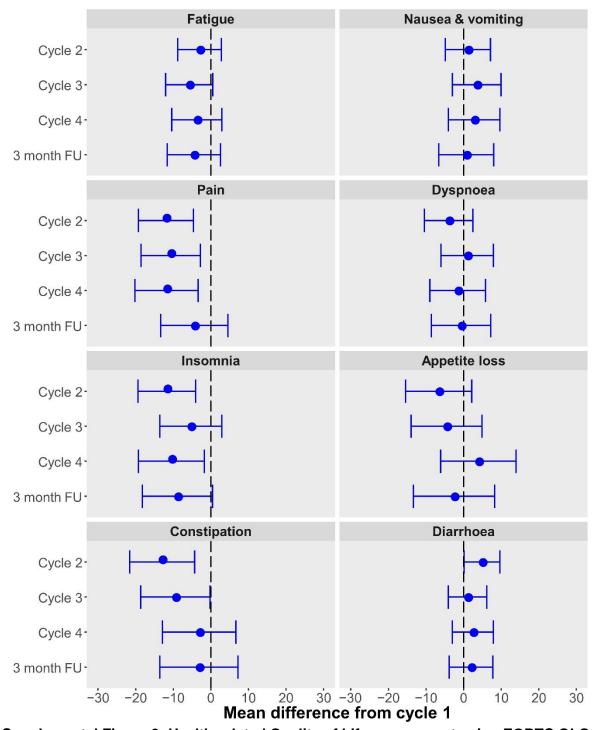
## Supplemental Table 1: EORTC QLQ-C30 mean difference in scores from baseline

	Cycle 2 – Baseline 46		Cycle 3 – Baseline 37		Cycle 4 – Baseline 30		3 month FU – Baseline 26	
Number evaluable								
	mean (95% CI)	p- value	mean (95% CI)	p- value	mean (95% CI)	p- value	mean (95% CI)	p- value
Global health status	6 (0 to 11)	0.037	7 (1 to 13)	0.026	5 (-2 to 11)	0.155	2 (-5 to 9)	0.553
Functional scales								
Physical functioning	-1 (-6 to 3)	0.627	-1 (-6 to 4)	0.769	1 (-4 to 6)	0.789	-2 (-7 to 4)	0.506
Role functioning	-3 (-10 to 4)	0.400	-2 (-10 to 6)	0.672	-5 (-13 to 3)	0.233	-11 (-20 to -2)	0.019
Emotional functioning	6 (2 to 10)	0.001	3 (-1 to 8)	0.094	5 (0 to 9)	0.040	4 (-1 to 9)	0.084
Cognitive functioning	3 (-2 to 9)	0.204	4 (-2 to 10)	0.197	4 (-2 to 10)	0.173	4 (-3 to 10)	0.277
Social functioning	3 (-4 to 9)	0.445	-5 (-12 to 2)	0.154	-3 (-11 to 4)	0.380	-5 (-13 to 3)	0.238
Symptom scales / items								
Fatigue	-3 (-9 to 3)	0.309	-6 (-12 to 1)	0.071	-4 (-10 to 3)	0.272	-5 (-12 to 3)	0.210
Nausea and vomiting	1 (-5 to 7)	0.713	3 (-3 to 10)	0.287	3 (-4 to 10)	0.420	1 (-7 to 8)	0.856

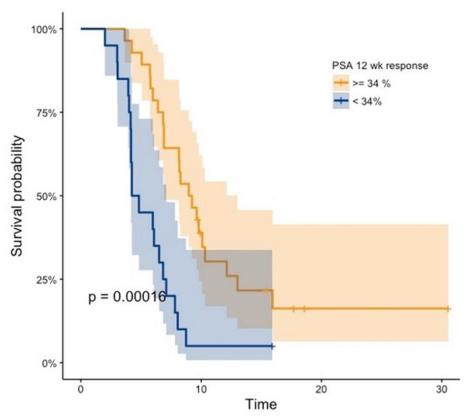
Pain	-12 (-19 to -5)	0.002	-11 (-19 to - 3)	0.008	-12 (-20 to -3)	0.006	-4 (-13 to 5)	0.329
Dyspnoea	-4 (-10 to 2)	0.227	1 (-6 to 8)	0.785	-2 (-9 to 6)	0.677	-1 (-9 to 7)	0.862
Insomnia	-12 (-19 to -4)	0.003	-5 (-14 to 3)	0.201	-11 (-19 to -2)	0.019	-9 (-18 to 0)	0.061
Appetite loss	-7 (-15 to 2)	0.138	-5 (-14 to 5)	0.342	4 (-6 to 14)	0.439	-3 (-13 to 8)	0.638
Constipation	-13 (-22 to -4)	0.003	-9 (-19 to 0)	0.044	-3 (-13 to 7)	0.532	-3 (-14 to 7)	0.549
Diarrhoea	5 (0 to 10)	0.044	1 (-4 to 6)	0.695	2 (-3 to 8)	0.376	2 (-4 to 8)	0.509



Supplemental Figure 1: Health-related Quality of Life assessment using EORTC QLQ-C30



Supplemental Figure 2: Health-related Quality of Life assessment using EORTC QLQ-C30



Supplemental Figure 3: Kaplan-Meier Overall Survival Curve by PSA response at 12 weeks with optimal cut-off of 34%. Hazard ratio increases 1.088 per 10% (95% Cl 1.049-1.129).

**Supplemental Figure 4:** Kaplan-Meier Overall Survival Curve in 16 patients who were excluded on the basis of low PSMA-expression or discordant FDG-avid disease compared to the 50 patients who were treated with 95% confidence interval shaded. Median OS was 2.5 months compared to 13.3 months.

