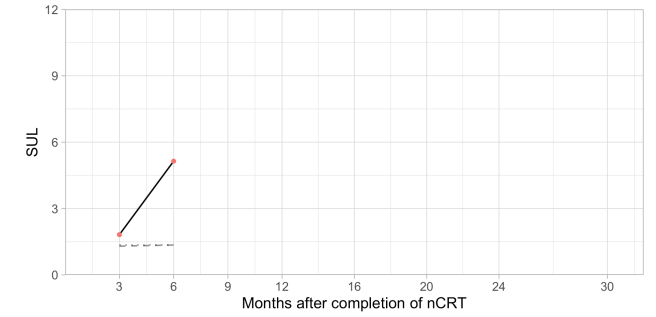


Supplemental Data

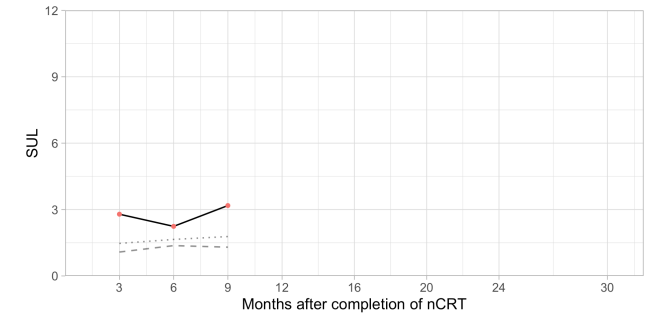
Supplemental Table 1. Patients with histologically proven recurrence of primary tumor at latest response evaluation in active surveillance

Patient	CRE	SUL _{max, tumor}	SUV _{max, tumor}	Weight (kg)	LBM (kg)	Glucose (mmol/L)	Interval (min)	SUL _{mean, blood pool}	SUL _{mean, liver}	SUL _{max, oes}	Lines in graph: — SUL _{max, tumor} ; - - SUL _{mean, blood pool} ; SUL _{max, oes}
1	2	3.89	4.94	75	59	5.2	63	1.25	1.86	1.53	
	3	4.04	5.19	77	60	missing	61	1.47	1.93	1.83	
2	2	1.94	2.49	81	63	9.3	57	1.74	2.13	1.72	
	3	2.20	2.83	82	64	9.1	64	1.59	2.13	1.61	
3	2	2.37	2.96	74	59	8.0	59	1.81	2.21	2.26	
	3	3.69	4.52	70	57	7.1	54	1.37	1.67	1.57	

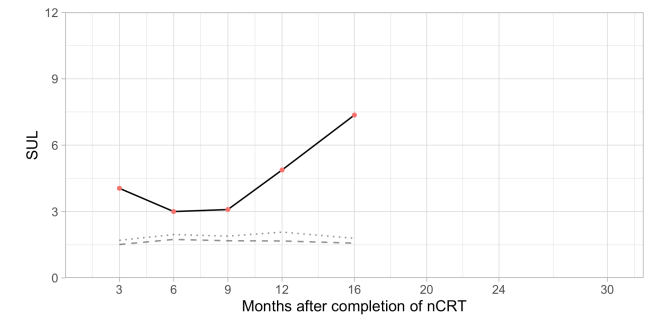
4	2	1.82	2.75	68	45	6.5	67	1.3	2.04	1.35
	3	5.14	7.77	68	45	6.2	50	1.35	1.99	1.36



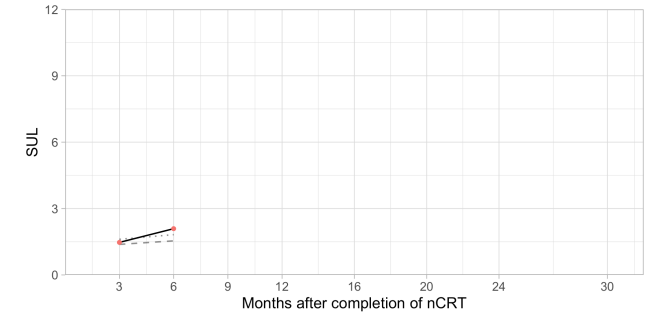
5	2	2.79	3.54	70	55	6.4	72	1.08	1.70	1.47
	3	2.24	2.84	70	55	6.1	58	1.37	1.68	1.65
	4	3.18	4.07	72	56	5.9	61	1.30	1.78	1.78



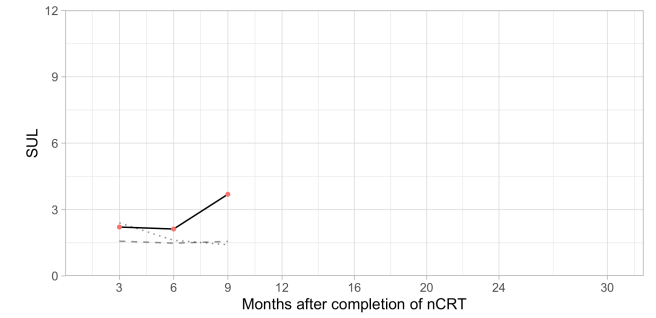
6	2	4.05	5.30	85	65	7.4	59	1.51	1.88	1.70
	3	3.00	3.93	85	65	7.2	55	1.74	2.06	1.96
	4	3.09	4.04	85	65	6.7	55	1.68	2.18	1.89
	5	4.88	6.41	86	65	6.4	58	1.67	2.05	2.07
	6	7.36	9.39	80	63	5.2	62	1.57	2.03	1.79



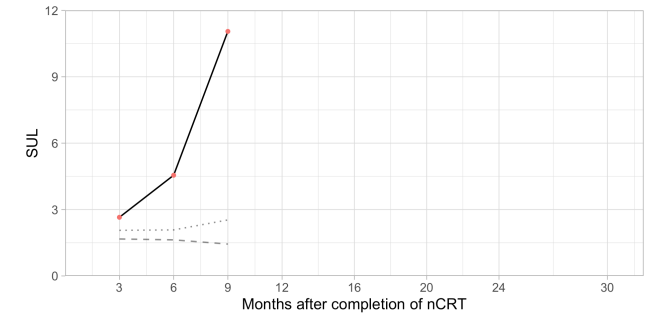
7	2	1.47	1.82	80	64	7.7	59	1.38	1.61	1.61
	3	2.09	2.63	82	65	9.7	56	1.54	1.84	1.82



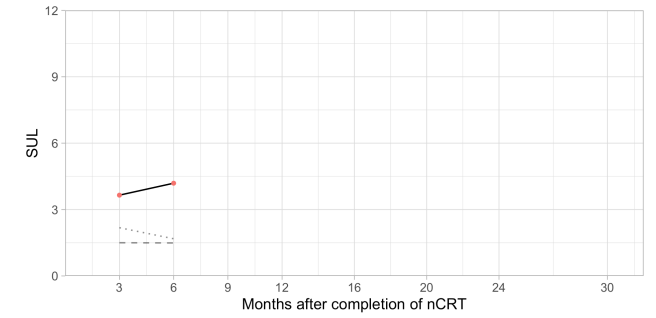
8	2	2.21	3.04	93	68	7.6	44	1.57	2.02	2.40
	3	2.12	2.87	90	67	7.2	59	1.48	1.89	1.61
	4	3.69	5.10	94	68	8.0	51	1.56	2.10	1.41



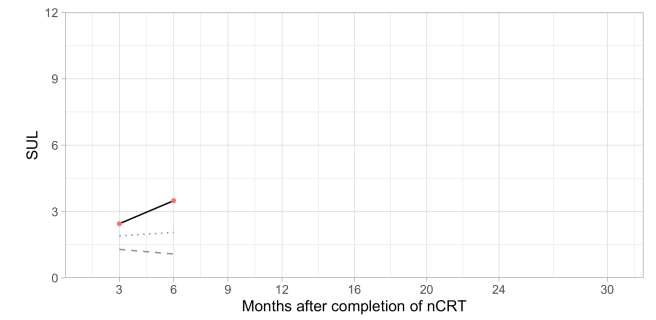
9	2	2.65	3.01	58	51	5.9	50	1.67	2.02	2.06
	3	4.55	5.27	63	54	5.4	50	1.63	2.14	2.08
	4	11.05	12.90	65	56	4.8	59	1.44	1.79	2.53



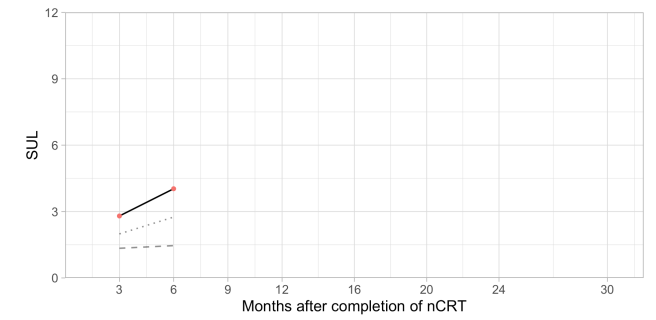
10	2	3.65	5.28	107	74	5.5	60	1.50	2.46	2.18
	3	4.19	6.06	107	74	6.0	58	1.49	2.43	1.68



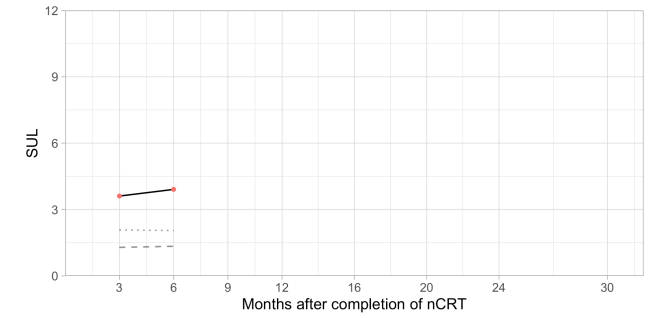
11	2	2.45	3.73	76	50	5.4	55	1.29	1.53	1.90
	3	3.49	5.31	76	50	5.7	66	1.08	1.60	2.06



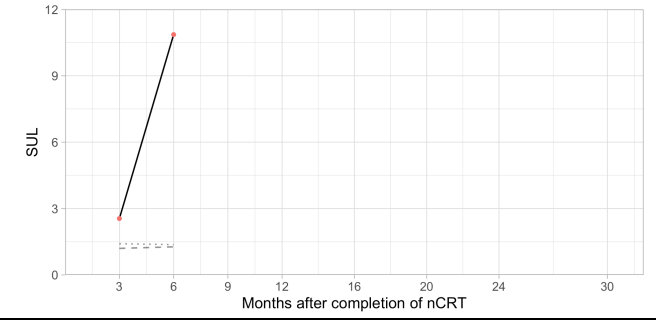
12	2	2.8	3.31	56	47	6.9	61	1.34	1.68	1.99
	3	4.03	4.81	58	49	7.7	60	1.46	1.87	2.75



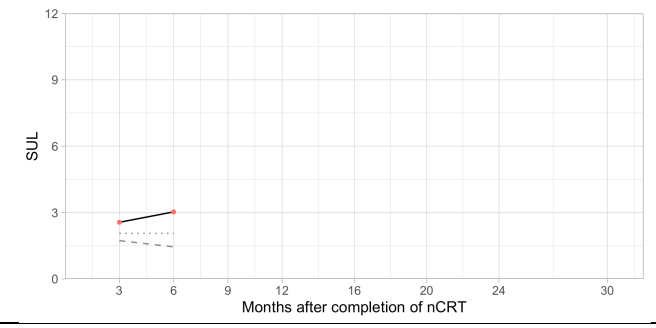
13	2	3.61	4.85	88	66	5.0	40	1.29	1.78	2.08
	3	3.91	5.26	88	66	5.2	60	1.34	1.88	2.05



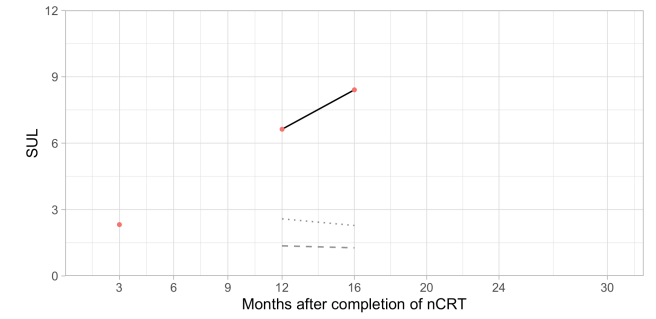
14	2	2.55	3.96	108	69	6.1	61	1.2	1.65	1.41
	3	10.86	17.00	109	70	6.0	55	1.27	1.93	1.37



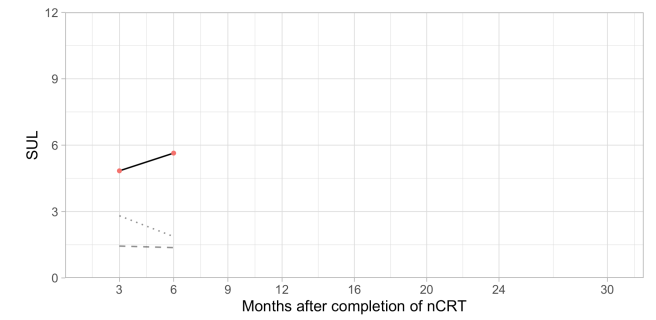
15	2	2.56	3.33	81	62	5.7	55	1.73	2.08	2.06
	3	3.03	3.88	78	61	5.1	54	1.45	1.78	2.06



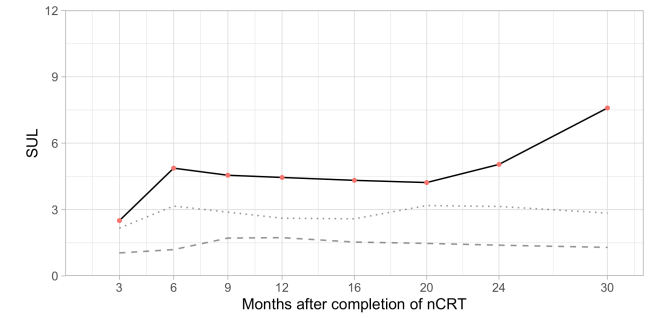
16	2	2.32	2.83	73	60	5.8	62	1.34	1.82	1.65
	No scans performed at CRE-3 or CRE-4									
	5	6.63	8.46	75	59	missing	50	1.36	1.92	2.58
	6	8.41	10.69	74	58	5.8	54	1.27	1.87	2.28



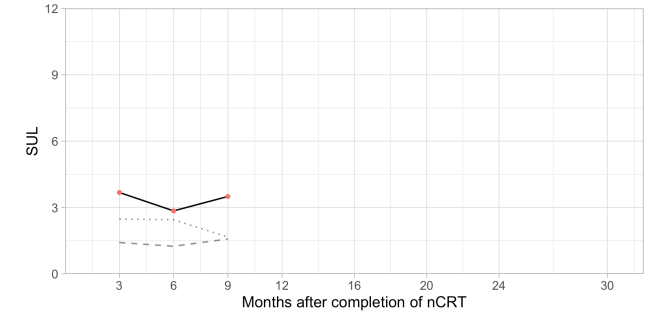
17	2	4.84	6.88	112	79	8.4	53	1.44	2.13	2.81
	3	5.64	8.33	112	76	8.0	52	1.37	2.00	1.87



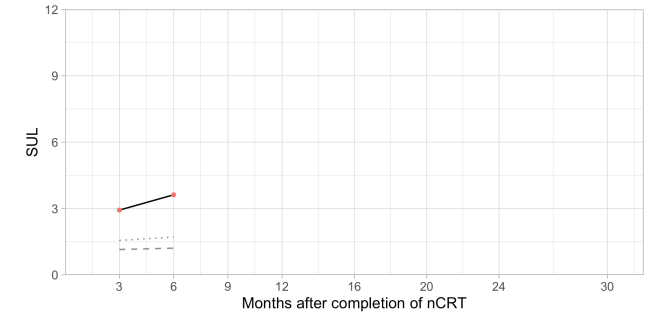
18	2	1.98	2.48	76	61	4.3	69	1.05	1.34	1.74
	3	4.87	6.09	76	61	5.7	67	1.19	1.74	3.16
	4	4.55	5.80	80	63	5.1	51	1.71	1.96	2.88
	5	4.45	5.57	76	61	5.3	51	1.73	2.04	2.61
	6	4.32	5.40	76	61	5.0	53	1.53	1.85	2.58
	7	4.22	5.33	78	62	6.2	55	1.47	1.86	3.18
	8	5.04	6.37	78	62	5.3	59	1.39	1.85	3.14
	9	7.59	9.49	76	61	missing	57	1.29	1.71	2.84



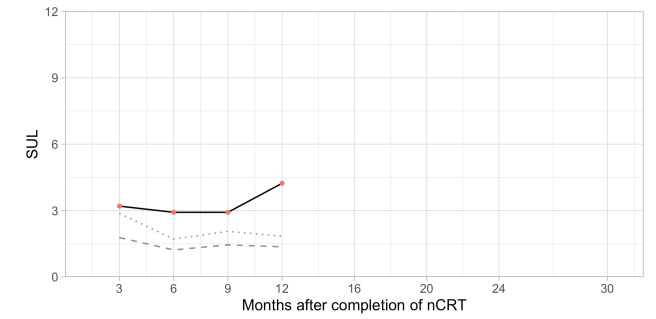
19	2	3.68	5.52	67	45	5.6	50	1.42	1.90	2.48
	3	2.85	4.23	66	44	6.3	59	1.25	1.82	2.45
	4	3.50	5.11	65	45	4.9	60	1.58	1.98	1.67



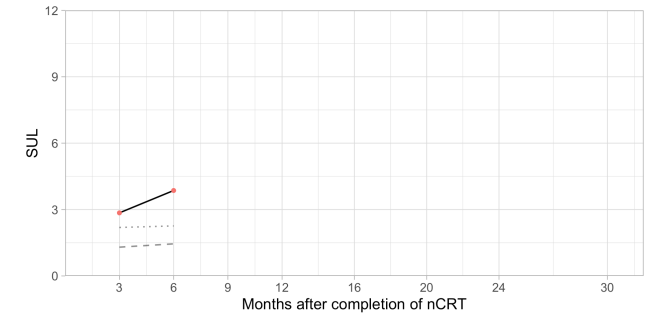
20	2	2.93	3.66	79	63	4.9	65	1.15	1.53	1.56
	3	3.62	4.60	83	65	5.1	65	1.21	1.57	1.71



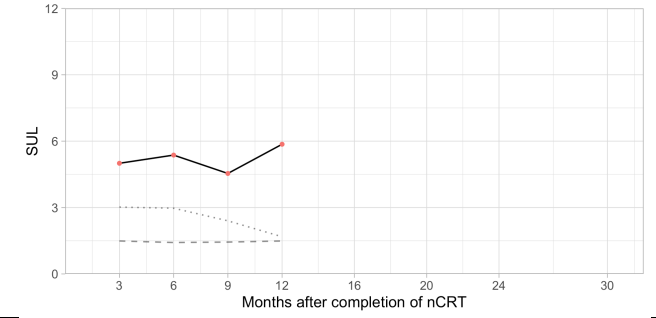
21	2	3.20	3.98	62	50	5.4	52	1.78	2.11	2.87
	3	2.92	3.73	65	51	5.2	63	1.22	1.56	1.71
	4	2.92	3.62	62	50	4.7	55	1.45	2.85	2.06
	5	4.23	5.39	63	49	5.2	56	1.36	1.68	1.84



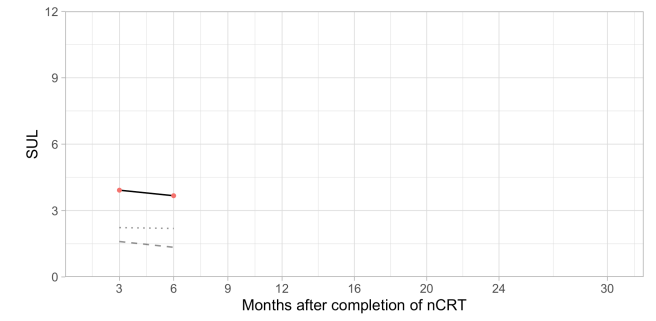
22	2	2.85	3.62	67	53	5.1	60	1.30	1.78	2.19
	3	3.86	4.86	67	53	4.9	56	1.45	1.90	2.26



23	2	5.00	7.44	122	82	6.7	50	1.49	2.01	3.02
	3	5.37	7.98	122	82	7.0	50	1.42	2.17	2.97
	4	4.54	7.32	128	80	8.0	58	1.44	2.00	2.40
	5	5.86	9.55	130	80	8.8	63	1.49	2.00	1.68



24	2	3.92	4.60	64	55	5.3	50	1.60	1.83	2.23
	3	3.67	4.39	64	53	4.9	50	1.34	1.78	2.19

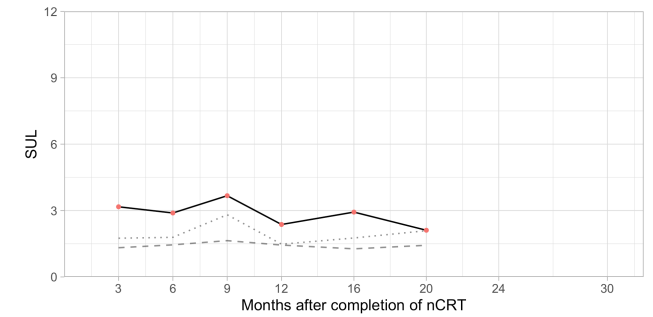


LBM = lean body mass; SUL_{max} = maximum standardized uptake value corrected for lean body mass; $SUL_{max, oes}$ = SUL_{max} in the physiological esophagus; nCRT = neoadjuvant chemoradiotherapy.

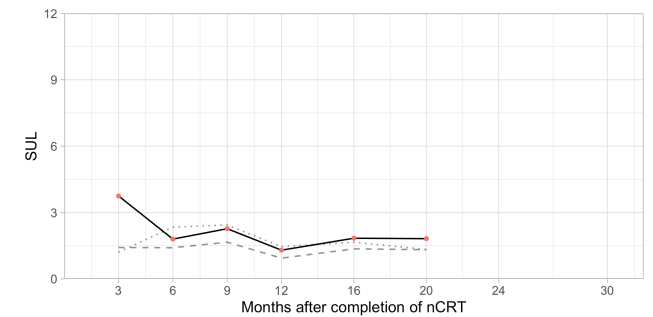
Supplemental Table 2. Patients with ongoing clinically complete response of primary tumor during active surveillance

Patient	CRE	SUL _{max, tumor}	SUV _{max, tumor}	Weight (kg)	LBM (kg)	Glucose (mmol/L)	Interval (min)	SUL _{mean, blood pool}	SUL _{mean, liver}	SUL _{max, oes}	Lines in graph: — SUL _{max, tumor} ; - - SUL _{mean, blood pool} ; ····· SUL _{max, oes}
25	2	3.69	5.45	90	61	6.4	51	1.15	1.53	1.89	
	3	3.07	4.60	92	61	6.0	67	missing	missing	missing	
	4	2.85	4.11	97	67	5.8	62	1.39	1.62	1.85	
	5	2.79	4.46	101	63	6.6	59	1.16	1.59	1.92	
	6	2.13	3.40	101	63	5.8	62	1.16	1.60	1.38	
	7	2.33	3.84	105	64	5.7	63	1.11	1.43	1.53	
	8	2.25	3.71	105	64	6.4	68	1.29	1.41	1.77	
	26	2	2.09	3.05	98	67	4.9	59	1.31	1.80	
3		1.8	2.61	97	67	5.1	59	1.5	1.77	1.55	
4		2.29	3.32	97	67	5.1	56	1.42	1.95	1.67	
5		2.53	3.67	97	67	5.1	61	1.46	1.74	1.72	
6		2.09	3.03	97	67	4.6	59	1.29	1.72	1.89	
7		2.41	3.44	95	66	5.2	58	1.69	1.97	2.06	

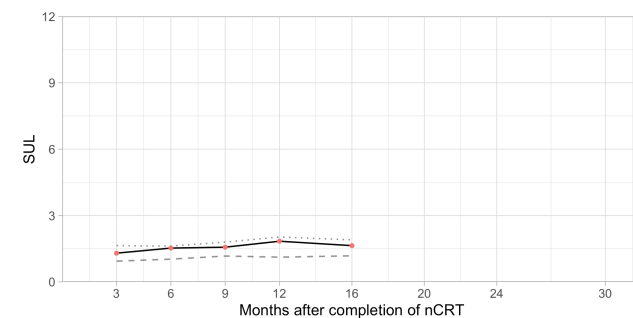
27	2	3.17	4.07	77	60	5.2	57	1.32	1.68	1.75
	3	2.89	3.71	77	60	5.9	64	1.45	1.75	1.79
	4	3.67	4.71	77	60	4.7	56	1.64	1.96	2.81
	5	2.37	3.13	82	62	6.1	61	1.44	1.71	1.48
	6	2.93	3.73	75	59	5.8	68	1.27	1.60	1.76
	7	2.11	2.69	75	59	5.3	59	1.43	1.74	2.09



28	2	3.75	4.65	73	59	7.0	66	1.42	1.95	1.21
	3	1.80	2.26	76	61	4.3	73	1.41	2.08	2.34
	4	2.27	2.90	79	62	5.0	59	1.66	2.37	2.44
	5	1.30	1.65	78	62	5.5	63	0.94	1.51	1.46
	6	1.84	2.34	78	62	4.7	64	1.36	1.79	1.66
	7	1.82	2.72	98	66	6.6	63	1.32	1.51	1.33



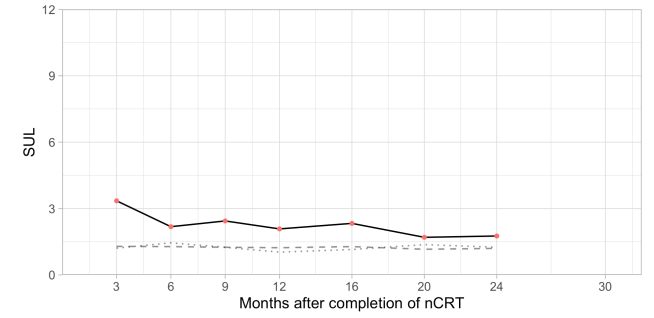
29	2	1.30	1.63	47	38	5.8	63	0.94	1.38	1.64
	3	1.53	1.91	47	38	5.6	56	1.03	1.42	1.62
	4	1.57	1.93	45	37	5.4	66	1.17	1.39	1.80
	5	1.84	2.27	45	37	5.4	65	1.12	1.47	2.03
	6	1.64	2.01	45	37	4.8	61	1.18	1.47	1.90
	no scans performed between CRE-6 and CRE-13									
13	2.03	2.46	42	35	5.7	65	1.11	1.44	2.31	



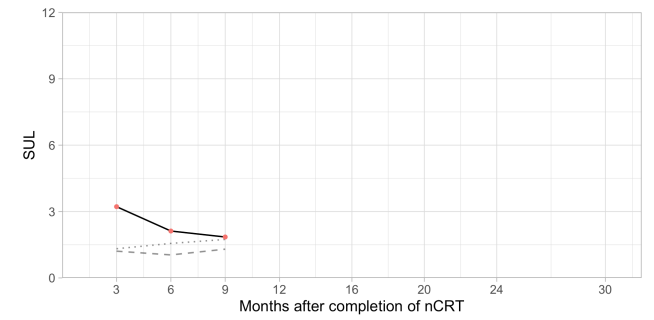
30	2	1.82	2.80	78	51	7.9	60	1.46	1.95	1.28
	3	1.75	2.70	78	51	7.7	58	1.40	2.47	1.29
	4	1.60	2.46	78	51	8.9	58	1.46	1.93	1.53
	5	1.61	2.45	77	51	8.3	58	1.38	1.90	1.39
	6	1.86	2.74	73	49	7.8	61	1.45	2.07	1.48
	7	1.85	2.66	70	49	8.7	56	1.48	2.05	1.29



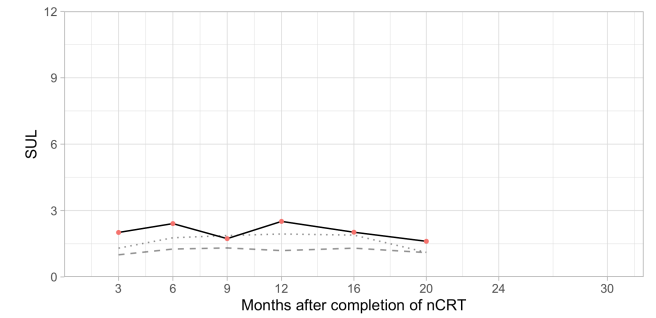
31	2	3.35	4.17	42	34	4.5	62	1.29	1.58	1.21
	3	2.18	2.71	42	34	5.1	59	1.28	1.65	1.45
	4	2.44	2.96	39	32	4.7	58	1.25	1.60	1.25
	5	2.08	2.48	37	31	5.2	60	1.23	1.61	1.03
	6	2.33	2.79	37	31	4.9	59	1.28	1.60	1.15
	7	1.70	2.02	37	31	5.7	63	1.16	1.55	1.37
	8	1.76	2.11	38	32	4.8	63	1.2	1.71	1.25



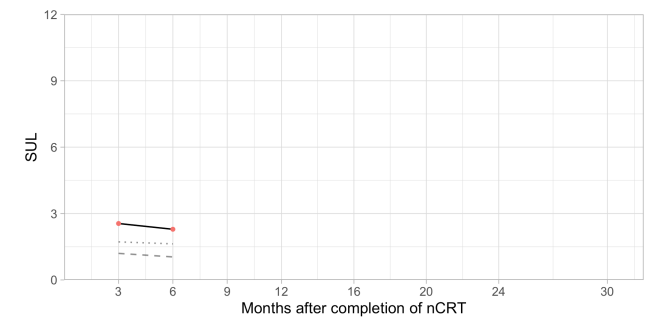
32	2	3.22	4.92	83	54	5.6	60	1.21	1.92	1.32
	3	2.12	3.29	85	55	5.6	56	1.04	1.85	1.56
	4	1.85	2.87	85	55	5.4	58	1.3	1.61	1.74



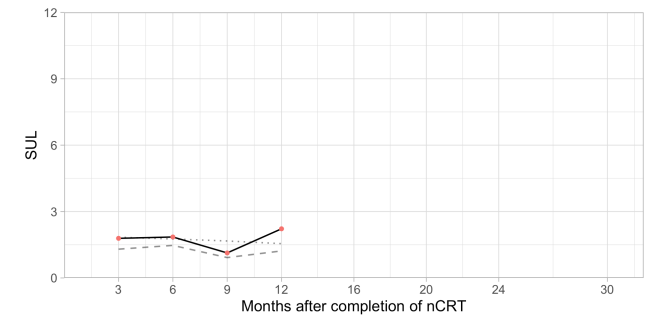
33	2	2.01	2.50	55	44	5.9	60	1.00	1.20	1.30
	3	2.41	3.01	56	45	6.1	62	1.26	1.47	1.77
	4	1.73	2.19	58	46	5.1	55	1.31	1.61	1.87
	5	2.51	3.18	58	46	5.5	60	1.19	1.44	1.94
	6	2.02	2.56	58	46	5.2	58	1.30	1.51	1.89
	7	1.61	1.99	54	44	4.8	58	1.10	1.31	1.11



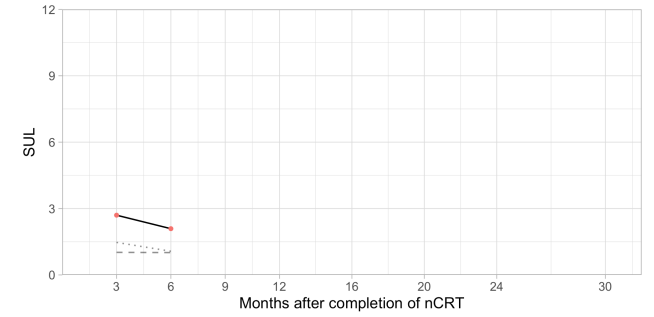
34	2	2.55	3.27	72	56	4.8	55	1.20	1.47	1.72
	3	2.29	2.97	74	57	5.5	64	1.04	1.41	1.63



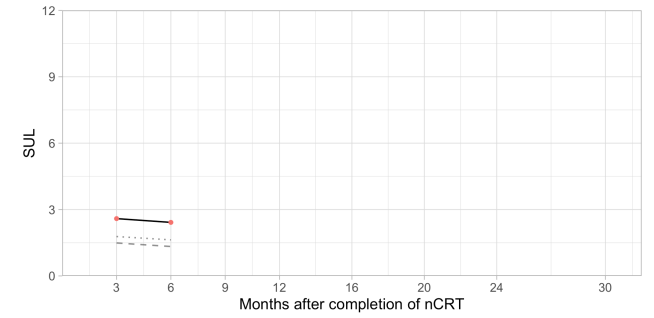
35	2	1.79	2.25	73	58	5.5	60	1.30	1.6	1.84
	3	1.85	2.33	73	58	6.7	56	1.47	1.72	1.76
	4	1.13	1.42	73	58	7.3	68	0.92	1.23	1.67
	5	2.22	2.81	74	59	7.3	65	1.22	1.51	1.55



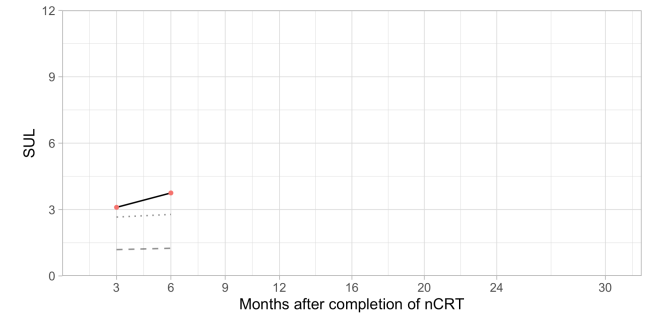
36	2	2.70	4.28	85	54	6.3	60	1.02	1.50	1.47
	3	2.09	3.41	88	54	5.9	60	1.01	1.53	1.07



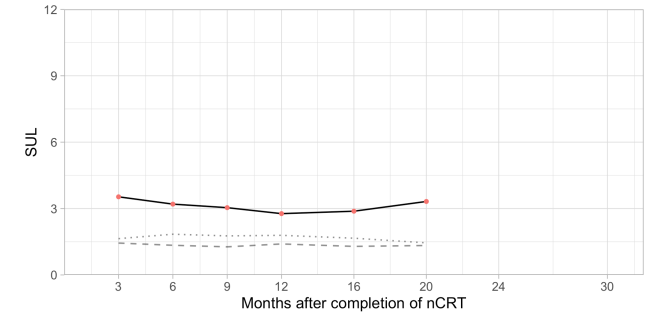
37	2	2.59	3.33	77	60	8.0	61	1.49	1.71	1.78
	3	2.42	3.06	77	61	8.5	65	1.33	1.61	1.63



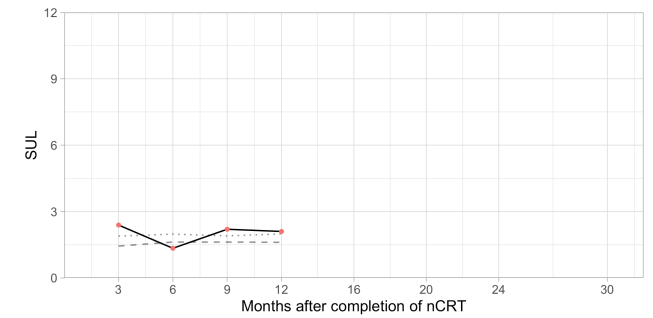
38	2	3.10	5.06	82	50	5.6	64	1.19	1.46	2.66
	3	3.75	5.84	76	49	5.2	76	1.25	1.53	2.78



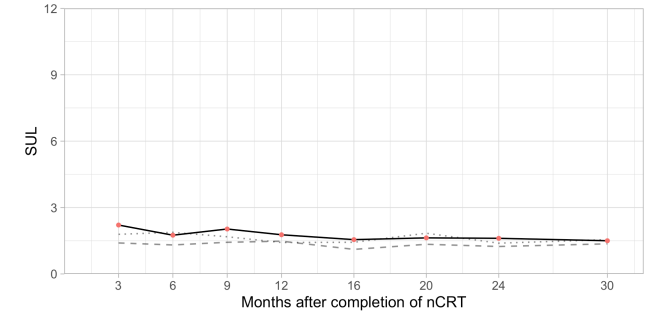
39	2	3.53	4.37	73	59	5.3	55	1.44	2.60	1.64
	3	3.20	4.00	75	60	5.2	58	1.34	1.76	1.84
	4	3.04	3.86	74	58	5.5	64	1.27	1.80	1.76
	5	2.77	3.54	75	59	5.3	58	1.40	1.88	1.79
	6	2.88	3.70	75	58	5.9	56	1.29	1.68	1.66
	7	3.32	4.31	77	59	5.6	59	1.33	1.78	1.45



40	2	2.39	3.43	102	71	6.2	59	1.44	2.31	1.89
	3	1.34	1.87	98	70	6.3	64	1.62	2.15	1.98
	4	2.20	3.11	100	71	5.5	60	1.62	2.03	1.90
	5	2.10	3.07	106	73	6.7	57	1.61	2.05	1.99



41	2	2.21	2.83	89	70	5.2	60	1.40	1.85	1.79
	3	1.75	2.29	94	72	5.7	61	1.31	1.70	1.88
	4	2.03	2.76	95	70	5.2	64	1.43	1.92	1.68
	5	1.77	2.43	97	71	5.7	55	1.48	1.76	1.42
	6	1.55	2.14	98	71	5.4	59	1.11	1.62	1.43
	7	1.63	2.25	98	71	5.2	60	1.34	1.73	1.84
	8	1.61	2.22	98	71	5.6	65	1.24	1.64	1.39
	9	1.50	2.07	98	71	5.0	58	1.36	2.29	1.55
	10	1.42	1.94	96	70	5.6	58	1.36	1.65	1.52



LBM = lean body mass; SUL_{max} = maximum standardized uptake value corrected for lean body mass; $SUL_{max, oes}$ = SUL_{max} in the physiological esophagus; nCRT = neoadjuvant chemoradiotherapy.

Supplemental Table 3. Tumor characteristics of patients who developed local tumor recurrence, shown separately for different patterns of SUL_{max} increases, and of patients with ongoing clinically complete response

	Local tumor recurrence (n = 24)			Ongoing cCR (n = 17)
	Gradual SUL _{max} increase (n = 19)	Steep (>180%) SUL _{max} increase (n = 5)	Total (n = 24)	
Histology				
Squamous cell carcinoma	2	2	4	6
Adenocarcinoma	17	3	20	10
Adenosquamous carcinoma	0	0	0	1
cT*				
cT1	0	0	0	0
cT2	7	1	8	3
cT3	12	4	16	11
cT4	0	0	0	1
cTx	0	0	0	1
Missing	0	0	0	1
cN*				
cN0	8	2	10	7
cN1	5	0	5	6
cN2	6	3	9	2
cNx	0	0	0	1
Missing	0	0	0	1
Differentiation grade				
Good-moderate	7	3	10	6
Poor	6	0	6	4
Missing	6	2	8	7

Data represent number of patients.

*Clinical tumor staging was according to the 7th edition of the International Union against Cancer's TNM classification.

cCR = clinically complete response