Supplemental Tables 1A –C: Success and failure rates for subgroups (for online publication only)

Table 1A; Success and failure rates for subgroups uptake time 60 versus 90 minutes

Uptake time 60 min (HOVON)

	PASS	FAIL	EDIT	TOTAL
41%	46	15	8	69
A50	41	26	2	69
SUV2.5	23	34	12	69
SUV4.0	53	2	14	69
MV2	53	2	14	69
MV3	51	13	5	69

Uptake time 90 min (UK scans)

	PASS	FAIL	EDIT	TOTAL
41%	36	30	3	69
A50	34	31	4	69
SUV2.5	28	23	18	69
SUV4.0	52	4	13	69
MV2	49	8	12	69
MV3	39	27	3	69

	X^2	df	P-value
41%	8.49	2	0.014
A50P	1.76	2	0.415
SUV2.5	3.81	2	0.149
SUV4.0	0.71	2	0.701
MV2	3.91	2	0.147
MV3	7.00	2	0.030

For 41%max and MV3 there were less PASS and more FAIL for the uptake time 90 min (UK scans)

Table 1B: Success and failure rates for subgroups EARL compatible or not.

Not EARL compatible

	PASS	FAIL	EDITING	TOTAL
41%	42	24	5	71
A50	37	30	4	71
SUV2.5	23	34	14	71
SUV4.0	58	2	11	71
MV2	55	5	11	71
MV3	49	19	3	71

EARL compatible

	PASS	FAIL	EDITING	TOTAL
41%	40	21	6	67
A50	38	27	2	67
SUV2.5	28	23	16	67
SUV4.0	47	4	16	67
MV2	47	5	15	67
MV3	41	21	5	67

	X^2	df	P-value
41%	0.22	2	0.896
A50	0.72	2	0.698
SUV2.5	2.63	2	0.269
SUV4.0	2.72	2	0.295
MV2	1.13	2	0.568
MV3	1.20	2	0.549

No statistically significant differences between non-EARL and EARL compatible.

Table 1C: Success and failure rates for subgroups progression or not

No progression

	PASS	FAIL	EDITING	TOTAL
41%	45	18	6	69
A50	43	23	3	69
SUV2.5	26	28	15	69
SUV4.0	51	4	14	69
MV2	51	5	13	69
MV3	50	16	3	69

Progression

	PASS	FAIL	EDITING	TOTAL
41%	37	27	5	69
A50	32	34	3	69
SUV2.5	25	29	15	69
SUV4.0	54	2	13	69
MV2	51	5	13	69
MV3	40	24	5	69

	X^2	df	P-value
41%	2.67	2	0.263
A50	3.74	2	0.154
SUV2.5	0.04	2	0.980
SUV4.0	0.79	2	0.674
MV2	0.00	2	1.000
MV3	3.21	2	0.200

No statistically significant differences in the 'progression' group.

Supplemental Tables 2A -C (for publication online only)

Table 2A: Comparison of volumes (using transformed data) between scans performed at 60 min and 90 min

	Uptake time	N*	Mean	Std.Dev.	P-value
SUV2.5	60 min	69	6.47	1.33	0.847
	90 min	69	6.43	1.38	
SUV4.0	60 min	68	5.54	1.42	0.848
	90 min	68	5.59	1.66	
A50P	60 min	68	4.61	1.57	0.449
	90 min	68	4.40	1.67	
41%	60 min	68	4.73	1.47	0.999
	90 min	68	4.73	1.97	
MV2	60 min	68	5.56	1.40	0.481
	90 min	68	5.75	1.69	
MV3	60 min	68	4.69	1.28	0.813
	90 min	68	4.62	1.80	

*N= 136 for all methods except SUV2.5. In two scans SUV2.5 method identified a small MTV value where the other methods had a MTV value of 0. A value of 0 cannot be natural log-transformed.

Table 2B: Comparison of volumes (using transformed data) between scans that were compliant or non-compliant with standardized scanning recommendations

	EARL reconstruction	N*	Mean	Std.Dev.	P-value
SUV2.5	Non-compliant	71	6.63	1.26	0.110
	Compliant	67	6.26	1.41	
SUV4.0	Non-compliant	70	5.54	1.60	0.891
	Compliant	66	5.58	1.48	
A50P	Non-compliant	70	4.53	1.65	0.816
	Compliant	66	4.47	1.59	
41%	Non-compliant	70	4.64	1.76	0.529
	Compliant	66	4.82	1.71	
MV2	Non-compliant	70	5.65	1.56	0.982
	Compliant	66	5.66	1.56	
MV3	Non-compliant	70	4.61	1.56	0.733
	Compliant	66	4.71	1.57	

*N= 136 for all methods except SUV2.5. In two scans SUV2.5 method identified a small MTV value where the other methods had a MTV value of 0. A value of 0 cannot be natural log-transformed

Table 2C: Comparison of volumes (using transformed data) between patient outcome: with and without progression

	Outcome	N*	Mean	Std.Dev.	P-value
SUV2.5	No progression	69	6.11	1.46	0.003
	Progression	69	6.79	1.13	
SUV4.0	No progression	67	5.23	1.64	0.013
	Progression	69	5.88	1.36	
A50P	No progression	67	4.16	1.57	0.014
	Progression	69	4.84	1.60	
41%	No progression	67	4.37	1.83	0.018
	Progression	69	5.07	1.56	
MV2	No progression	67	5.26	1.67	0.003
	Progression	69	6.04	1.34	
MV3	No progression	67	4.35	1.68	0.021
	Progression	69	4.96	1.37	

*N= 136 for all methods except SUV2.5. In two scans SUV2.5 method identified a small MTV value where the other methods had a MTV value of 0. A value of 0 cannot be natural log-transformed.