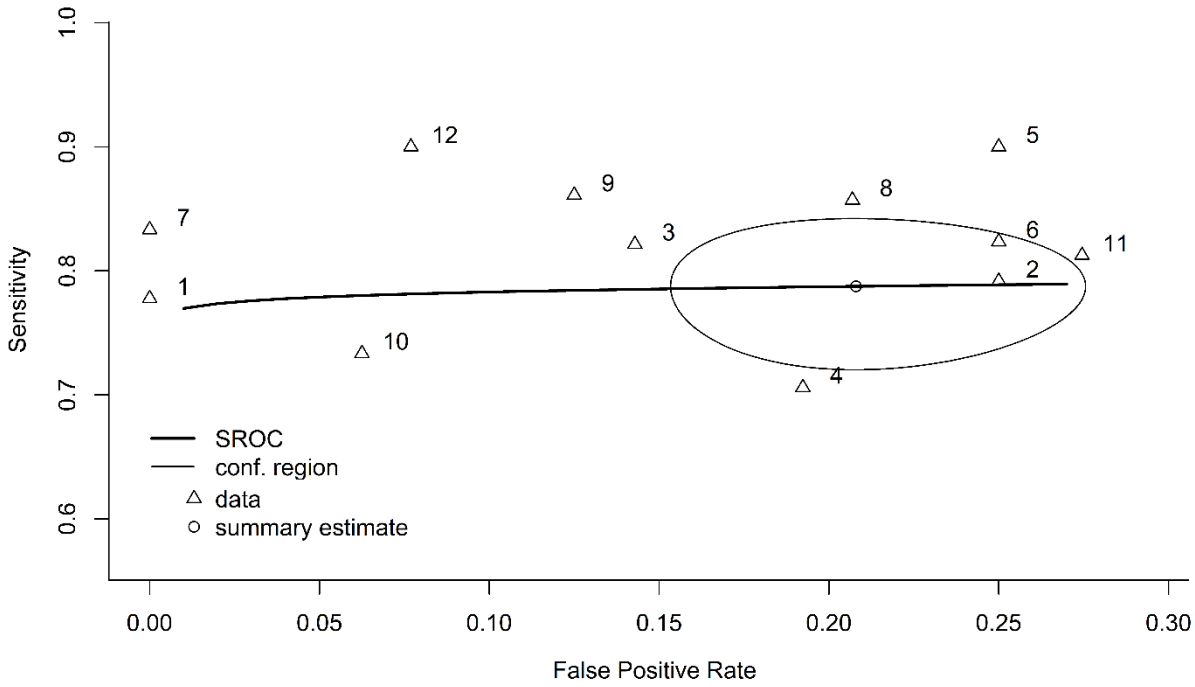
Supplemental data

Supplemental table 1: Quality assessment of diagnostic accuracy studies

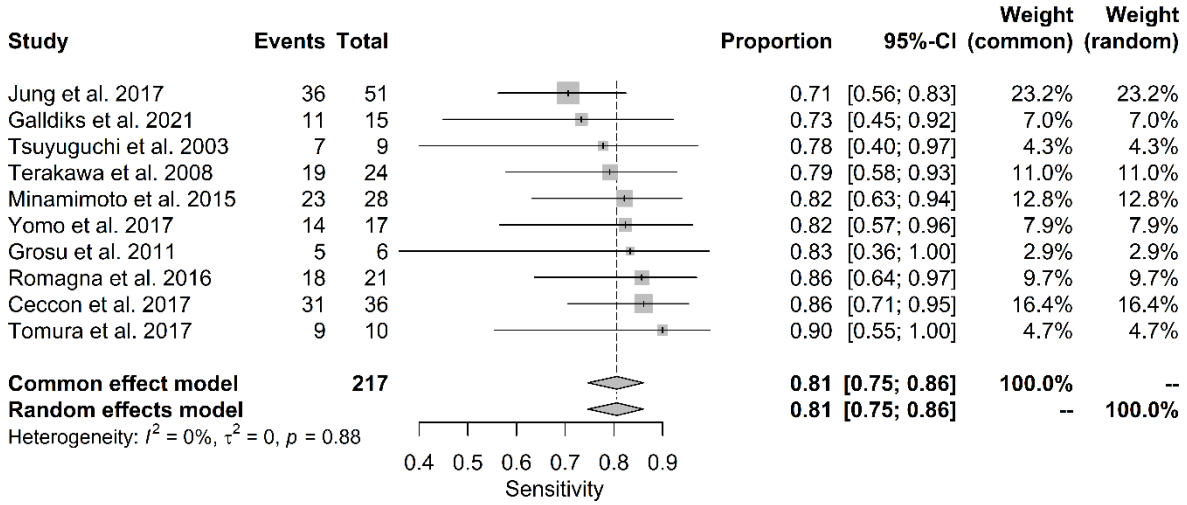
	Risk of bias				Applicability concerns		
	Patient selection	Index test	Reference standard	Flow and timing	Patient selection	Index test	Reference standard
Tsuyuguchi et al., 2003	unclear	high	unclear	low	unclear	unclear	low
Terakawa et al., 2008	low	high	unclear	unclear	unclear	low	low
Minamimoto et al., 2015	unclear	high	unclear	unclear	low	low	low
Jung et al., 2017	unclear	high	unclear	high	unclear	low	low
Tomura et al., 2017	unclear	high	unclear	high	unclear	low	low
Yomo et al., 2017	low	low	unclear	unclear	low	low	low
Grosu et al., 2011	low	low	unclear	unclear	low	low	low
Romagna et al., 2016	unclear	high	unclear	unclear	unclear	low	low
Ceccon et al., 2017	low	high	unclear	high	unclear	low	low
Galldiks et al., 2021	low	high	unclear	high	high	low	low
Lizarraga et al., 2014	unclear	high	unclear	unclear	unclear	low	low
Cicone et al., 2015	low	high	unclear	unclear	unclear	low	low

For patient selection, risk was unclear if there was no mention on consecutive series of patients and low if stated consecutive or reported years of inclusion together with inclusion criteria. For the index test, risk was low if raters were blinded and if there was a predefined cut-off for the positive test, unclear if there was no information on blinding, and high if there was an exploratory cut-off. For the reference standard, risk was unclear, as impact of PET findings on decisions about application or interpretation of the reference standard (surgery or clinical-neuroradiological follow-up) was not clearly specified. For flow and timing, risk was low if a time lag between PET and surgery (biopsy or resection) was less than 30 days and if a minimal clinical-neuroradiological follow-up was 5 months and more, unclear if not reported, and high if a time lag between PET and surgery was more than 30 days or if a minimal clinical-neuroradiological follow-up was less than 5 months.

Supplemental figure 1: Summary receiver operating characteristic curve

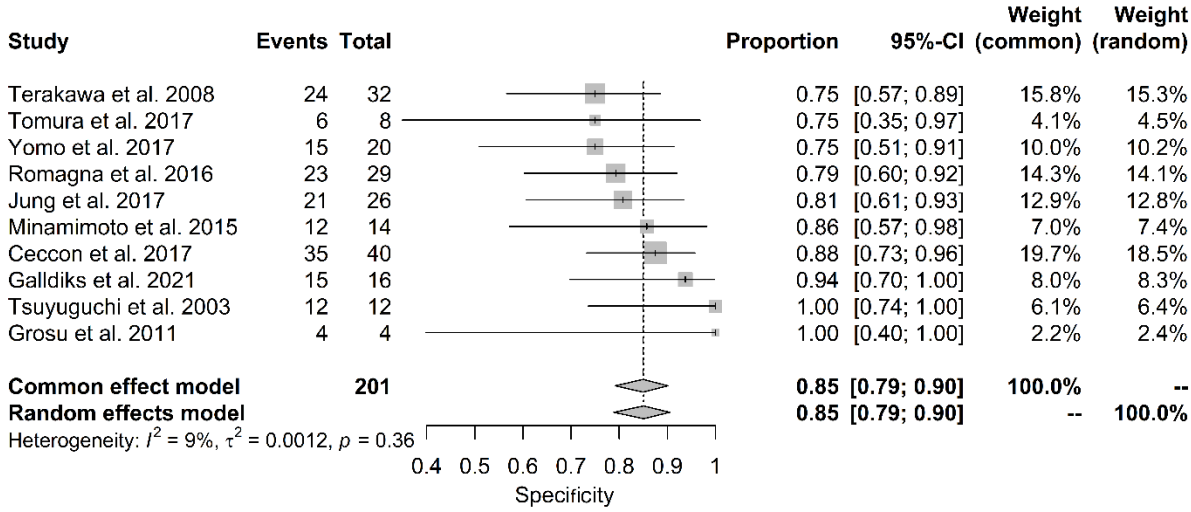


Supplemental figure 2: Forest plot for sensitivity for studies with FET and MET (n=10)



The "Events" column lists the number of true-positive (TP) results. The "Total" column shows a sum of true-positives (TP) and false-negatives (FN). The “Proportion" column lists the reported sensitivity of the individual publications and a 95% confidence interval. The "Weight" columns indicate a contribution of a given study according to the sample size. The area of the gray squares is proportional to the weight of the study in the meta-analysis. The length of the diamonds corresponds to the corresponding confidence interval. The vertical line represents the pooled sensitivity.

Supplemental figure 3: Forest plot for specificity for studies with FET and MET (n=10)



The "Events" column lists the number of true-negative (TN) results. The "Total" column shows a sum of true-negatives (TN) and false-positives (FP). The “Proportion" column lists the reported specificity of the individual publications and a 95% confidence interval. The "Weight" columns indicate a contribution of a given study according to the sample size. The area of the gray squares is proportional to the weight of the study in the meta-analysis. The length of the diamonds corresponds to the corresponding confidence interval. The vertical line represents the pooled specificity.

Supplemental table 2: Pooled estimates of diagnostic odds ratios (DOR), positive likelihood ratio (posLR), and negative likelihood ratio (negLR) with corresponding 95% confidence intervals for 10 studies with FET and MET

Study	**Tracer**	**DOR**	**2.5%**	**97.5%**	**posLR**	**2.5%**	**97.5%**	**negLR**	**2.5%**	**97.5%**
Tsuyuguchi et al., 2003	MET	75.00	3.16	1782.78	19.50	1.26	302.43	0.26	0.09	0.77
Terakawa et al., 2008	MET	10.22	3.00	34.84	3.03	1.64	5.60	0.3	0.14	0.64
Minamimoto et al., 2015	MET	21.36	4.12	110.68	4.86	1.55	15.28	0.23	0.10	0.50
Jung et al., 2017	MET	9.21	3.04	27.91	3.45	1.60	7.42	0.37	0.24	0.59
Tomura et al., 2017	MET	16.47	1.72	157.29	3.11	1.06	9.15	0.19	0.04	0.88
Yomo et al., 2017	MET	11.68	2.55	53.35	3.08	1.45	6.53	0.26	0.10	0.70
Grosu et al., 2011	FET/MET	33.00	1.06	1023.56	7.86	0.55	112.09	0.24	0.06	1.01
Romagna et al., 2016	FET	19.11	4.55	80.27	3.88	1.92	7.85	0.20	0.08	0.54
Ceccon et al., 2017	FET	36.97	10.32	132.37	6.35	2.88	13.97	0.17	0.08	0.37
Galldiks et al., 2021	FET	26.41	3.58	194.96	8.15	1.71	38.71	0.31	0.14	0.69
Summary (DSL estimate)	**All**	**12.59**	**6.75**	**23.47**	**3.39**	**2.37**	**4.84**	**0.30**	**0.22**	**0.41**