TcMEP:

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub	
tsens.(Intercept)	0.851	0.291	2.928	0.003	0.281	1.420	**
t□pr.(Intercept)	-3.170	0.353	-8.982	0.000	-3.861	-2.478	***
sensitivity	0.701	-	-	-	0.570	0.805	
□alse pos. rate	0.040	-	-	-	0.021	0.077	

Signi□ codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	t□pr
tsens	0.823	1.000	.
t□pr	1.153	0.526	1.000

logLik	AIC	BIC
33.958	-57.915	-50.587

AUC: 0.92

Partial AUC (restricted to observed FPRs and normalized): 0.854

I2 estimates

Zhou and Dendukuri approach: 8.3 %

Holling sample size unadjusted approaches: 31.3 - 45 %

Holling sample size adjusted approaches: 3.4 - 4.1 %

Pooled LR+ = 15.16 (95% CI: 8.53 to 26.96)

Pooled LR- = 0.36 (95% CI: 0.25 to 0.52)

SSEP:

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub	
tsens.(Intercept)	-0.049	0.213	-0.232	0.817	-0.468	0.369	
t□pr.(Intercept)	-2.937	0.215	-13.681	0.000	-3.357	-2.516	***
sensitivity	0.488	-	-	-	0.385	0.591	
□alse pos. rate	0.050	-	-	-	0.034	0.075	

Signi□ codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	t□pr
tsens	0.000	1.000	.
t□pr	0.000	-0.627	1.000

logLik	AIC	BIC
28.677	-47.354	-42.376

AUC: 0.82

Partial AUC (restricted to observed FPRs and normalized): 0.429

I2 estimates

Zhou and Dendukuri approach: 4.2 %

Holling sample size unadjusted approaches: 0 - 0 %

Holling sample size adjusted approaches: 0 - 0 %

Pooled LR+ = 13.91 (95% CI: 6.89 to 28.09)

Pooled LR- = 0.61 (95% CI: 0.44 to 0.85)

Multimodal:

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub	
tsens.(Intercept)	0.719	0.346	2.076	0.038	0.040	1.398	*
t□pr.(Intercept)	-3.263	0.323	-10.091	0.000	-3.897	-2.629	***
sensitivity	0.672	-	-	-	0.510	0.802	
□alse pos. rate	0.037	-	-	-	0.020	0.067	

Signi□ codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	t□pr
tsens	0.639	1.000	.
t□pr	0.609	1.000	1.000

logLik AIC BIC

25.435 -40.870 -36.419

AUC: 0.942

Partial AUC (restricted to observed FPRs and normalized): 0.698

I2 estimates

Zhou and Dendukuri approach: 0 %

Holling sample size unadjusted approaches: 16.8 - 29.6 %

Holling sample size adjusted approaches: 1.8 - 2.3 %

Pooled LR+ = 15.26 (95% CI: 9.57 to 24.33)

Pooled LR- = 0.39 (95% CI: 0.25 to 0.63)

SUBGROUP ANALYSIS

TcMEP 50%:

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub	
tsens.(Intercept)	0.766	0.303	2.532	0.011	0.173	1.360	*
t□pr.(Intercept)	-3.323	0.329	-10.095	0.000	-3.968	-2.678	***
sensitivity	0.683	-	-	-	0.543	0.796	
□alse pos. rate	0.035	-	-	-	0.019	0.064	

Signi codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	tpr
tsens	0.440	1.000	.
tpr	0.566	1.000	1.000

logLik	AIC	BIC
26.415	-42.831	-38.379

AUC: 0.928

Partial AUC (restricted to observed FPRs and normalized): 0.719

I2 estimates

Zhou and Dendukuri approach: 0 %

Holling sample size unadjusted approaches: 0 - 0 %

Holling sample size adjusted approaches: 0 - 0 %

Pooled LR+ = 17.11 (95% CI: 9.95 to 29.42)

Pooled LR- = 0.38 (95% CI: 0.28 to 0.53)

<u>TcMEP 70:</u>

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub

tsens.(Intercept) 1.376 0.743 1.851 0.064 -0.081 2.833 .

t□pr.(Intercept) -2.629 0.770 -3.416 0.001 -4.138 -1.121 ***

sensitivity 0.798 - - - 0.480 0.944

□alse pos. rate 0.067 - - - 0.016 0.246

Signi□ codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	t□pr
tsens	1.425	1.000	.
t□pr	1.657	0.272	1.000

logLik	AIC	BIC
8.846	-7.693	-6.180

AUC: 0.935

Partial AUC (restricted to observed FPRs and normalized): 0.876

I2 estimates

Zhou and Dendukuri approach: 62.5 %

Holling sample size unadjusted approaches: 65.9 - 81.1 %

Holling sample size adjusted approaches: 8.6 - 12.8 %

Pooled LR+ = 11.49 (95% CI: 4.8 to 27.49)

Pooled LR- = 0.23 (95% CI: 0.08 to 0.7)

TcMEP 60:

Bivariate diagnostic random-effects meta-analysis

Estimation method: REML

Fixed-effects coefficients

	Estimate	Std. Error	z	Pr(>|z|)	95%ci.lb	95%ci.ub	
tsens.(Intercept)	-0.494	0.745	-0.663	0.507	-1.955	0.967	
t□pr.(Intercept)	-3.864	1.015	-3.807	0.000	-5.853	-1.875	***
sensitivity	0.379	-	-	-	0.124	0.724	
□alse pos. rate	0.021	-	-	-	0.003	0.133	

Signi□ codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Variance components: between-studies Std. Dev and correlation matrix

	Std. Dev	tsens	t□pr
tsens	0.000	1.000	.
t□pr	0.000	-0.340	1.000

logLik	AIC	BIC
7.247	-4.493	-7.562

AUC: 0.728

Partial AUC (restricted to observed FPRs and normalized): 0.233

I2 estimates

Zhou and Dendukuri approach: 13.6 %

Holling sample size unadjusted approaches: 0 - 0 %

Holling sample size adjusted approaches: 0 - 0 %

Pooled LR+ = 454.1 (95% CI: 0.2 to 1025088)

Pooled LR- = 0.71 (95% CI: 0.42 to 1.2)

Bayesian metanalysis:

P(TcMEP > SSEP): 93 %

P(MULTI > SSEP): 90.6 %