

Supplementary Table 3: Results of investigation for heterogeneity and meta-analysis of studies investigating the diagnostic test accuracy of the ECG, BNP and NT-proBNP

TEST and sub-groups based on LVSD prevalence and reference standard used	Pooled Diagnostic Odds Ratio (confidence interval)	HETEROGENEITY -Chi square (degrees of freedom) - I^2	SUMMARY SENSITIVITY % (CI)	SUMMARY SPECIFICITY %(CI)
ECG				
ECG (all studies)	8.8 (5.1-15.1)	100.18(df13)p<0.01	-----	-----
ECG (LVSD prevalence <20%)	7.2(2.0-26.1)	31.96 (df3)p<0.01	-----	-----
ECG (LVSD prevalence 20%-40%)	14.9(5.2-42.8)	62.4(df5) p<0.01	-----	-----
ECG (LVSD prevalence >40%) <i>Best DOR estimate</i>	8.9 (3.5-22.5)	2.01(df1) p=0.156 ($I^2 = 50\%$)	-----	-----
ECG (LVSD prevalence >40%) <i>Worst DOR estimate</i>	6.2 (3.3-11.7)	0.13 (df1) p=0.723 ($I^2 = 100\%$)	-----	-----
ECG (reference standard = quantitative ejection fraction <30%)	0 studies	-----	-----	-----
ECG (reference standard = quantitative ejection fraction 30%-50%)	6.0 (4.0-9.0)	22.46(df8) p<0.01	-----	-----
ECG (reference standard = semi-quantitative or qualitative ejection fraction) <i>Best DOR estimate</i>	13.8 (2.0-94.5)	55.4 (df3) p<0.01	-----	-----
ECG (reference standard = semi-quantitative or qualitative ejection fraction) <i>Worst DOR estimate</i>	11.5 (1.8-74.2)	54.1 (df3) p<0.01	-----	-----
ECG (reference standard = echocardiography + symptoms)	1 study	-----	-----	-----

Table 3 contin.

TEST and sub-groups based on LVSD prevalence and reference standard used	Pooled Diagnostic Odds Ratio (confidence interval)	HETEROGENEITY -Chi square (degrees of freedom) -I²	SUMMARY SENSITIVITY (%)	SUMMARY SPECIFICITY (%)
BNP				
BNP (all studies) <i>Best DOR estimate</i>	10.7 (7.0-16.3)	34.89 (df15) p=0.003	-----	-----
BNP (all studies) <i>Worst DOR estimate</i>	10.2 (6.8-15.3)	33.19 (df15) p=0.004	-----	-----
BNP (LVSD prevalence <20%) <i>Best DOR estimate</i>	12.8 (4.3-37.6)	4.04 (df2) p=0.133 (I ² 51 %)	-----	-----
BNP (LVSD prevalence <20%) <i>Worst DOR estimate</i>	8.8 (4.8-16.2)	2.24 (df2) p=0.327 I ² 11%	86	67
BNP (LVSD prevalence 20%-40%)	12.3 (5.8-26.4)	26.4(df8) p<0.01	-----	-----
BNP (LVSD prevalence >40%)	1 study	-----	-----	-----
BNP (reference standard = quantitative ejection fraction <30%)	1 study	-----	-----	-----
BNP (reference standard= quantitative ejection fraction 30%-50%) <i>Best DOR estimate</i>	12.3 (8.4-18.1)	10.51 (df8) p=0.231 I ² 24%	87	68
BNP (reference standard= quantitative ejection fraction 30%-50%) <i>Worst DOR estimate</i>	11.7 (8.2-16.6)	9.50 (df8) I ² 16%	85	68
BNP (reference standard = semi-quantitative or qualitative ejection fraction)	4.8 (2.4-9.8)	5.1(df3) p=0.163 I ² 41%	95	61
BNP (reference standard = echocardiography + symptoms)	70.5 (11.6-427.6)	1.56 (df1) p=.212 I ² 36%	98	64

Table 3 contin.

TEST and sub-groups based on LVSD prevalence and reference standard used	Pooled Diagnostic Odds Ratio (confidence interval)	HETEROGENEITY -Chi square (degrees of freedom) -I²	SUMMARY SENSITIVITY (%)	SUMMARY SPECIFICITY (%)
Nt-proBNP				
NT-proBNP (all studies) <i>Best DOR estimate</i>	18.9 (8.2-42.4)	21.48 (df8) p=0.006	-----	-----
NT-proBNP (all studies) <i>Worst DOR estimate</i>	12.8 (6.3-25.8)	21.84 (df8) p=0.005	-----	-----
Nt-proBNP (LVSD prevalence <20%) <i>Best DOR estimate</i>	10.9 (2.6-46.1)	0.31 (df1) p=0.579 I ² =100%	-----	-----
Nt-proBNP (LVSD prevalence <20%) <i>Worst DOR estimate</i>	6.3 (3.0-13.2)	0.02 (df 1) p= 0.891 I ² =100%	-----	-----
NT-proBNP (LVSD prevalence 20%-40%) <i>Best DOR estimate</i>)	43.6 (23.8-79.9)	0.44 (df3) p=0.931 I ² =100%	-----	-----
NT-proBNP (LVSD prevalence 20%-40%) <i>Worst DOR estimate</i>	30.8 (18.0-52.8)	0.99 (df3) p=0.803 I ² =100%	-----	-----
NT-pro BNP (LVSD prevalence >40%)	7.6 (.7-78.8)	2.08 (df1) p=0.149 I ² =52%	-----	-----
NT-pro BNP (reference standard = quantitative ejection fraction <30%)	No studies	-----	-----	-----
NT-pro BNP (reference standard = quantitative ejection fraction 30%-50%)	5.9 (2.5-14.4)	2.29 (df2) p=0.318 I ² =13%	90	39
NT-proBNP (reference standard = semi-quantitative or qualitative ejection fraction	1 study	-----	-----	-----
NT-proBNP (reference standard =echocardiography + symptoms) <i>Best DOR estimate</i>	38.0 (21.2-67.9)	3.06 (df 4) p=0.548 I ² =31%	95	66
NT-proBNP (reference standard =echocardiography + symptoms) <i>Worst DOR estimate</i>	28.1 (16.7-47.4)	2.80 (df4) p=0.592 I ² =43%	93	60

Table 3 contin.

TEST and sub-groups based on LVSD prevalence and reference standard used	Pooled Diagnostic Odds Ratio (confidence interval)	HETEROGENEITY -Chi square (degrees of freedom) -I²	SUMMARY SENSITIVITY (%)	SUMMARY SPECIFICITY (%)
BNP+ECG				
BNP and ECG (all studies) <i>Best DOR estimate</i>	18.3 (8.5-39.1)	0.25 (df1) p=0.621 I ² =100%	-----	-----
BNP and ECG (all studies) <i>Worst DOR estimate</i>	14.0 (7.2-27.1)	0.27 (df1) p=0.605 I ² =100%	-----	-----

Notes to table 3:

Where individual primary studies included more than one cut off/threshold for the natriuretic peptide the best and worst estimates of test accuracy from the individual study were used to investigate heterogeneity and estimate the pooled sensitivity and specificity.

* n=1 study comprising 2 distinct patient populations eg males versus females

NEED TO ADD CI AROUND SUMMARY ESTIMATES OF SENSITIVITY AND SPECIFICITY