

Supplementary material 7. Sensitivity, specificity, +LR, –LR, PPV, NPV, and Youden's index for different GAD cut-off points compared to the gold standard.

Method	Cut-off Points	n (%)	Sensitivity (95%CI)	Specificity (95%CI)	+LR (95%CI)	-LR (95%CI)	PPV (95%CI)	NPV (95%CI)	Youden Index
GAD-7	≥1	1244 (92.4)	96.4 (81.7 - 99.9)	7.7 (6.4 - 9.3)	1.05 (0.97 - 1.12)	0.46 (0.07 - 3.19)	2.2 (1.4 - 3.1)	99.0 (94.7 - 100.0)	4.1
	≥2	1128 (83.7)	96.4 (81.7 - 99.9)	16.5 (14.6 - 18.6)	1.16 (1.07 - 1.25)	0.22 (0.03 - 1.49)	2.4 (1.6 - 3.5)	99.5 (97.5 - 100.0)	12.9
	≥3	960 (71.3)	96.4 (81.7 - 99.9)	29.3 (26.8 - 31.8)	1.36 (1.26 - 1.48)	0.12 (0.02 - 0.84)	2.8 (1.9 - 4.1)	99.7 (98.6 - 100.0)	25.7
	≥4	797 (59.2)	89.3 (71.8 - 97.7)	41.5 (38.8 - 44.2)	1.53 (1.33 - 1.75)	0.26 (0.09 - 0.75)	3.1 (2.0 - 4.6)	99.5 (98.4 - 99.9)	30.8
	≥5	640 (47.5)	71.4 (51.3 - 86.8)	53.0 (50.3 - 55.7)	1.52 (1.19 - 1.93)	0.54 (0.30 - 0.97)	3.1 (1.9 - 4.8)	98.9 (97.8 - 99.5)	24.4
	≥6	491 (36.5)	60.7 (40.6 - 78.5)	64.1 (61.4 - 66.7)	1.69 (1.24 - 2.30)	0.61 (0.39 - 0.97)	3.5 (2.0 - 5.5)	98.7 (97.7 - 99.4)	24.8
	≥7	360 (26.7)	53.6 (33.9 - 72.5)	73.8 (71.4 - 76.2)	2.05 (1.43 - 2.93)	0.63 (0.42 - 0.94)	4.2 (2.4 - 6.8)	98.7 (97.8 - 99.3)	27.4
	≥8	295 (21.9)	53.6 (33.9 - 72.5)	78.8 (76.5 - 81.0)	2.52 (1.76 - 3.62)	0.59 (0.40 - 0.88)	5.1 (2.9 - 8.3)	98.8 (97.9 - 99.3)	32.4
	≥9	230 (17.1)	42.9 (24.5 - 62.8)	83.5 (81.4 - 85.4)	2.59 (1.66 - 4.04)	0.69 (0.50 - 0.94)	5.2 (2.7 - 8.9)	98.6 (97.7 - 99.2)	26.4
	≥10	164 (12.2)	39.3 (21.5 - 59.4)	88.4 (86.5 - 90.1)	3.39 (2.09 - 5.50)	0.69 (0.51 - 0.93)	6.7 (3.4 - 11.7)	98.6 (97.7 - 99.2)	27.7
	≥11	120 (8.9)	39.3 (21.5 - 59.4)	91.7 (90.1 - 93.2)	4.75 (2.90 - 7.79)	0.66 (0.49 - 0.89)	9.2 (4.7 - 15.8)	98.6 (97.8 - 99.2)	31.0
	≥12	94 (7.0)	28.6 (13.2 - 48.7)	93.5 (92.0 - 94.8)	4.38 (2.36 - 8.15)	0.76 (0.60 - 0.97)	8.5 (3.8 - 16.1)	98.4 (97.5 - 99.0)	22.1
	≥13	67 (5.0)	28.6 (13.2 - 48.7)	95.5 (94.3 - 96.6)	6.39 (3.39 - 12.10)	0.75 (0.59 - 0.95)	11.9 (5.3 - 22.2)	98.4 (97.6 - 99.0)	24.1
	≥14	50 (3.7)	21.4 (8.3 - 41.0)	96.7 (95.5 - 97.6)	6.42 (2.98 - 13.80)	0.81 (0.67 - 0.99)	12.0 (4.5 - 24.3)	98.3 (97.4 - 98.9)	18.1
	≥15	40 (3.0)	14.3 (4.0 - 32.7)	97.3 (96.2 - 98.1)	5.23 (2.00 - 13.70)	0.88 (0.76 - 1.03)	10.0 (2.8 - 23.7)	98.2 (97.3 - 98.8)	11.6
	≥16	31 (2.3)	10.7 (2.3 - 28.2)	97.9 (96.9 - 98.6)	5.05 (1.63 - 15.60)	0.91 (0.80 - 1.04)	9.7 (2.0 - 25.8)	98.1 (97.2 - 98.8)	8.6
	≥17	19 (1.4)	3.6 (0.1 - 18.3)	98.6 (97.9 - 99.2)	2.62 (0.36 - 18.90)	0.98 (0.91 - 1.05)	5.3 (0.1 - 26.0)	98.0 (97.1 - 98.7)	2.2
	≥18	15 (1.1)	0.0 (0.0 - 12.3)	98.9 (98.1 - 99.4)	0.00 (0.00 - 0.00)	1.01 (1.01 - 1.02)	0.0 (0.0 - 21.8)	97.9 (97.0 - 98.6)	-1.1
	≥19	12 (0.9)	0.0 (0.0 - 12.3)	99.1 (98.4 - 99.5)	0.00 (0.00 - 0.00)	1.01 (1.00 - 1.01)	0.0 (0.0 - 26.5)	97.9 (97.0 - 98.6)	-0.9
	≥20	8 (0.6)	0.0 (0.0 - 12.3)	99.4 (98.8 - 99.7)	0.00 (0.00 - 0.00)	1.01 (1.00 - 1.01)	0.0 (0.0 - 36.9)	97.9 (97.0 - 98.6)	-0.6
	≥21	5 (0.4)	0.0 (0.0 - 12.3)	99.6 (99.1 - 99.9)	0.00 (0.00 - 0.00)	1.00 (1.00 - 1.01)	0.0 (0.0 - 52.2)	97.9 (97.0 - 98.6)	-0.4
GAD-2	≥1	1028 (76.3)	89.3 (71.8 - 97.7)	24.0 (21.7 - 26.4)	1.17 (1.03 - 1.34)	0.45 (0.15 - 1.31)	2.4 (1.6 - 3.6)	99.1 (97.3 - 99.8)	13.3
	≥2	681 (50.6)	82.1 (63.1 - 93.9)	50.1 (47.4 - 52.8)	1.65 (1.37 - 1.97)	0.36 (0.16 - 0.79)	3.4 (2.2 - 5.0)	99.2 (98.3 - 99.8)	32.2
	≥3	283 (21.0)	42.9 (24.5 - 62.8)	79.5 (77.2 - 81.6)	2.09 (1.34 - 3.24)	0.72 (0.52 - 0.99)	4.2 (2.2 - 7.3)	98.5 (97.6 - 99.1)	22.4
	≥4	141 (10.5)	25.0 (10.7 - 44.9)	89.8 (88.1 - 91.4)	2.46 (1.27 - 4.77)	0.84 (0.67 - 1.03)	5.0 (2.0 - 10.0)	98.3 (97.4 - 98.9)	14.8
	≥5	51 (3.8)	14.3 (4.0 - 32.7)	96.4 (95.3 - 97.4)	4.01 (1.55 - 10.40)	0.89 (0.76 - 1.03)	7.8 (2.2 - 18.9)	98.1 (97.3 - 98.8)	10.7
	≥6	28 (2.1)	7.1 (0.9 - 23.5)	98.0 (97.1 - 98.7)	3.62 (0.90 - 14.50)	0.95 (0.86 - 1.05)	7.1 (0.9 - 23.5)	98.0 (97.1 - 98.7)	5.1

Note: +LR = Positive likelihood ratio. –LR = Negative likelihood ratio. PPV= positive predictive value. NPV= negative predictive value. Youden's Index = Sensitivity+Specificity-1. 95%CI = 95% confidence interval. GAD =Generalized Anxiety Disorder Scale. Bold values represent the cut-off with the highest Youden Index.