

Supplementary material 6. Sensitivity, specificity, PPV, NPV, and Youden's index for different PHQ and GAD cut-off points compared to the gold standard.

| Method | Cut-off Points | n (%) | Sensitivity (95%CI) | Specificity (95%CI) | PPV (95%CI) | NPV (95%CI) | Youden Index |
|--------------------------|----------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------|
| PHQ-9 | ≥7 | 537 (39.9) | 76.0 (71.1 - 80.5) | 72.1 (69.2 - 74.8) | 47.3 (43.0 - 51.6) | 90.1 (87.9 - 92.1) | 48.1 |
| PHQ-9 | ≥8 | 454 (33.7) | 68.9 (63.6 - 73.8) | 77.9 (75.2 - 80.4) | 50.7 (46.0 - 55.4) | 88.4 (86.1 - 90.4) | 46.8 |
| PHQ-9 | ≥9 | 371 (27.5) | 60.2 (54.7 - 65.5) | 83.2 (80.8 - 85.5) | 54.2 (49.0 - 59.3) | 86.4 (84.1 - 88.5) | 43.4 |
| PHQ-9 | ≥10 | 309 (22.9) | 54.2 (48.7 - 59.6) | 87.4 (85.2 - 89.3) | 58.6 (53.9 - 63.1) | 85.3 (83.7 - 86.7) | 41.6 |
| PHQ-9 algorithm | - | 183 (13.6) | 34.7 (29.6 - 40.1) | 93.4 (91.7 - 94.8) | 63.4 (56.0 - 70.4) | 81.3 (78.9 - 83.5) | 28.1 |
| PHQ-9 adjusted algorithm | - | 601 (44.6) | 78.1 (73.3 - 82.5) | 66.4 (63.4 - 69.3) | 43.4 (39.4 - 47.5) | 90.2 (87.9 - 92.3) | 44.5 |
| PHQ-8 | ≥7 | 521 (38.7) | 74.3 (69.2 - 78.9) | 73.1 (70.2 - 75.8) | 47.6 (43.2 - 52.0) | 89.6 (87.3 - 91.6) | 47.4 |
| PHQ-8 | ≥8 | 428 (31.8) | 65.6 (60.2 - 70.7) | 79.4 (76.7 - 81.8) | 51.2 (46.3 - 56.0) | 87.5 (85.2 - 89.6) | 44.9 |
| PHQ-8 | ≥9 | 357 (26.5) | 58.4 (52.9 - 63.7) | 84.0 (81.6 - 86.2) | 54.6 (49.3 - 59.9) | 86.0 (83.6 - 88.1) | 42.4 |
| PHQ-8 | ≥10 | 286 (21.2) | 50.0 (44.5 - 55.5) | 88.3 (86.1 - 90.2) | 58.4 (52.4 - 64.2) | 84.3 (81.9 - 86.4) | 38.3 |
| PHQ-2 | ≥2 | 730 (54.2) | 84.7 (80.4 - 88.4) | 55.9 (52.8 - 59.0) | 38.8 (35.2 - 42.4) | 91.7 (89.3 - 93.8) | 40.6 |
| PHQ-2 | ≥3 | 358 (26.6) | 55.4 (49.9 - 60.8) | 82.9 (80.5 - 85.2) | 51.7 (46.4 - 57.0) | 84.9 (82.6 - 87.1) | 38.3 |
| GAD-7 | ≥7 | 360 (26.7) | 53.6 (33.9 - 72.5) | 73.8 (71.4 - 76.2) | 4.2 (2.4 - 6.8) | 98.7 (97.8 - 99.3) | 27.4 |
| GAD-7 | ≥8 | 295 (21.9) | 53.6 (33.9 - 72.5) | 78.8 (76.5 - 81.0) | 5.1 (2.9 - 8.3) | 98.8 (97.9 - 99.3) | 32.4 |
| GAD-7 | ≥9 | 230 (17.1) | 42.9 (24.5 - 62.8) | 83.5 (81.4 - 85.4) | 5.2 (2.7 - 8.9) | 98.6 (97.7 - 99.2) | 26.4 |
| GAD-7 | ≥10 | 164 (12.2) | 39.3 (21.5 - 59.4) | 88.4 (86.5 - 90.1) | 6.7 (3.4 - 11.7) | 98.6 (97.7 - 99.2) | 27.7 |
| GAD-2 | ≥2 | 681 (50.6) | 82.1 (63.1 - 93.9) | 50.1 (47.4 - 52.8) | 3.4 (2.2 - 5.0) | 99.2 (98.3 - 99.8) | 32.2 |
| GAD-2 | ≥3 | 283 (21.0) | 42.9 (24.5 - 62.8) | 79.5 (77.2 - 81.6) | 4.2 (2.2 - 7.3) | 98.5 (97.6 - 99.1) | 22.4 |

Note: PPV= positive predictive value. NPV= negative predictive value. Youden's Index = Sensitivity+Specificity-1. 95%CI = 95% confidence interval. GAD =Generalized Anxiety Disorder Scale. PHQ = Patient Health Questionnaire. Bold values represent the cohort point with the highest Youden Index. All cut-off points for the PHQ and GAD versions can be found in supplementary materials 3 and 4, respectively.

