

**Table S1: Prevalence-based diagnostic performance outcomes with sensitivity and specificity for common specified nodules across different TIRADS**

| <b>RATER BY</b>            | <b>TOTAL</b>   | <b>SEN % (CI)</b> | <b>SPE (%) (CI)</b> | <b>PPV (CI)</b>  | <b>NPV (CI)</b>  | <b>DA (CI)</b>   |
|----------------------------|----------------|-------------------|---------------------|------------------|------------------|------------------|
| <b>TIRADS</b>              | <b>NODULES</b> |                   |                     |                  |                  |                  |
| <b>EU-CAD</b>              | 162            | 79.0 (66.8;88.3)  | 55.0 (44.7;65.0)    | 52.1 (41.6;62.5) | 80.9 (69.5;89.4) | 64.2 (56.3;71.6) |
| <b>EU-R<sub>1</sub></b>    | 162            | 85.5 (74.2;93.1)  | 62.0 (51.8;71.5)    | 58.2 (47.4;68.5) | 87.3 (77.3;94.1) | 71.0 (63.3;77.8) |
| <b>EU-R<sub>2</sub></b>    | 162            | 71.0 (58.1;81.8)  | 64.0 (53.8;73.4)    | 55.0 (43.5;66.2) | 78.1 (67.6;86.4) | 66.7 (58.8;73.9) |
| <b>KSThR-CAD</b>           | 162            | 83.9 (72.3;92.0)  | 46.0 (36.0;56.3)    | 49.1 (39.2;59.0) | 82.1 (69.6;91.1) | 60.5 (52.5;68.1) |
| <b>KSThR-R<sub>1</sub></b> | 162            | 90.3 (80.1;96.4)  | 51.0 (40.8;61.4)    | 53.3 (43.3;63.1) | 89.5 (78.5;96.0) | 66.1 (58.2;73.3) |
| <b>KSThR-R<sub>2</sub></b> | 162            | 75.8 (63.3;85.8)  | 61.0 (50.7;70.6)    | 54.7 (43.6;65.4) | 80.3 (69.6;88.5) | 66.7 (58.8;73.9) |
| <b>AACE-CAD</b>            | 114            | 92.5 (81.8;97.9)  | 26.2 (15.8;39.1)    | 52.1 (41.6;62.5) | 80.0 (56.3;94.3) | 57.0 (47.4;62.5) |
| <b>AACE-R<sub>1</sub></b>  | 114            | 88.7 (77.0;95.7)  | 54.1 (40.9;66.9)    | 62.7 (50.7;73.6) | 84.6 (69.5;94.1) | 70.2 (60.9;78.4) |
| <b>AACE-R<sub>2</sub></b>  | 114            | 79.3 (65.9;89.2)  | 62.3 (49.0;74.4)    | 64.6 (51.8;76.1) | 77.6 (63.4;88.3) | 70.2 (60.9;78.4) |
| <b>ATA-CAD</b>             | 96             | 79.5 (63.5;90.7)  | 66.7 (52.9;78.6)    | 62.0 (47.2;75.4) | 82.6 (68.6;92.2) | 71.9 (61.8;80.6) |
| <b>ATA-R<sub>1</sub></b>   | 96             | 79.5 (63.5;90.7)  | 70.2 (56.6;81.6)    | 64.6 (49.5;77.8) | 83.3 (69.8;92.5) | 74.0 (64.0;82.4) |
| <b>ATA-R<sub>2</sub></b>   | 96             | 74.4 (57.9;87.0)  | 68.4 (54.8;80.1)    | 61.7 (46.4;75.5) | 79.6 (65.7;89.8) | 70.8 (60.7;79.7) |

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NPV = negative predictive value, PPV = positive predictive value, DA = diagnostic accuracy.

**Table S2: p- values for SEN, SPEC, and AUROC comparisons between subjective raters and CAD per TIRADS**

| TIRADS | Diagnostic Performance Measure | Raters                |                       |                                  |
|--------|--------------------------------|-----------------------|-----------------------|----------------------------------|
|        |                                | R <sub>1</sub> vs CAD | R <sub>2</sub> vs CAD | R <sub>1</sub> vs R <sub>2</sub> |
| EU     | SEN                            | 0.82                  | 0.51                  | 0.041                            |
|        | SPEC                           | 0.27                  | 0.19                  | 0.82                             |
|        | PPV                            | 0.40                  | 0.70                  | 0.67                             |
|        | NPV                            | 0.30                  | 0.67                  | 0.13                             |
|        | DA                             | 0.54                  | 0.066                 | 0.16                             |
|        | AUROC                          | 0.064                 | 0.57                  | 0.11                             |
| KSThR  | SEN                            | 0.57                  | 0.31                  | 0.010                            |
|        | SPEC                           | 0.21                  | 0.020                 | 0.37                             |
|        | PPV                            | 0.54                  | 0.44                  | 0.86                             |
|        | NPV                            | 0.26                  | 0.79                  | 0.15                             |
|        | DA                             | 0.74                  | 0.70                  | 0.23                             |
|        | AUROC                          | 0.021                 | 0.13                  | 0.41                             |
| AACE   | SEN                            | 0.50                  | 0.017                 | 0.089                            |
|        | SPEC                           | 0.001                 | <0.001                | 0.81                             |
|        | PPV                            | 0.17                  | 0.12                  | 0.81                             |
|        | NPV                            | 0.65                  | 0.83                  | 0.41                             |
|        | DA                             | 0.001                 | <0.001                | 0.30                             |
|        | AUROC                          | 0.001                 | <0.001                | 0.20                             |
| ATA    | SEN                            | 0.99                  | 0.63                  | 0.63                             |
|        | SPEC                           | 0.73                  | 0.99                  | 0.99                             |
|        | PPV                            | 0.79                  | 0.98                  | 0.77                             |
|        | NPV                            | 0.93                  | 0.71                  | 0.64                             |
|        | DA                             | 0.78                  | 0.42                  | 0.76                             |
|        | AUROC                          | 0.82                  | 0.95                  | 0.72                             |

**Table S3: Proportion of agreement (%) between raters based on TIRADS cut-off points for malignancy-risk stratification**

| Raters                                | Nodules    | TIRADS   |         |        |           |
|---------------------------------------|------------|----------|---------|--------|-----------|
|                                       |            | AACE (%) | ATA (%) | EU (%) | KSThR (%) |
| <b>R<sub>1</sub> vs CAD</b>           | <b>M</b>   | 84.9     | 89.7    | 77.4   | 87.1      |
|                                       | <b>B</b>   | 63.9     | 87.7    | 71.0   | 73.0      |
|                                       | <b>ALL</b> | 73.7     | 88.5    | 73.5   | 78.4      |
| <b>R<sub>2</sub> vs CAD</b>           | <b>M</b>   | 79.2     | 84.6    | 79.0   | 82.3      |
|                                       | <b>B</b>   | 50.8     | 73.7    | 63.0   | 61.0      |
|                                       | <b>ALL</b> | 64.0     | 78.1    | 69.1   | 69.1      |
| <b>R<sub>1</sub> vs R<sub>2</sub></b> | <b>M</b>   | 86.8     | 89.7    | 79.0   | 85.4      |
|                                       | <b>B</b>   | 80.3     | 87.7    | 80.0   | 72        |
|                                       | <b>ALL</b> | 83.3     | 88.5    | 79.6   | 77.2      |