Supplementary Material

# **S1 Table Demographic and Clinical Features in CVDs and non-CVDs Groups.**

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|  | Training set (n = 1879) | Validation set (n = 806) |
| Parameters | Non-CVDs (n = 1707) | CVDs (n = 172) | P-value | Non-CVDs (n = 719) | CVDs (n = 87) | P-value |
| Gender: |  |  |  < 0.001  |  |  | 0.002  |
|  0 | 587 (34.39%) | 34 (19.77%)  |   | 249 (34.63%) | 15 (17.24%)  |   |
|  1 | 1120 (65.61%) | 138 (80.23%) |   | 470 (65.37%) | 72 (82.76%)  |   |
| Age | 51.00 [37.00;64.00]  | 69.00 [63.00;77.00]  |  < 0.001  | 51.00 [38.00;64.00]  | 69.00 [63.00;74.50]  |  < 0.001  |
| Smoking: |   |   |  < 0.001  |   |   |  0.005  |
|  0 |  1007 (58.99%) | 66 (38.37%)  |   | 432 (60.08%) | 38 (43.68%)  |   |
|  1 | 700 (41.01%) | 106 (61.63%) |   | 287 (39.92%) | 49 (56.32%)  |   |
| Drinking: |   |   |  < 0.001  |   |   |  0.066  |
|  0 | 834 (48.86%) | 59 (34.30%)  |   | 344 (47.84%) | 32 (36.78%)  |   |
|  1 | 873 (51.14%) | 113 (65.70%) |   | 375 (52.16%) | 55 (63.22%)  |   |
| SBP | 120.00 [111.00;130.00] | 135.00 [120.00;150.00] |  < 0.001  | 120.00 [110.00;130.00] | 133.00 [120.00;140.00] |  <0.001  |
| HBP | 80.00 [70.00;85.00]  | 80.00 [70.00;88.00]  |  0.096  | 80.00 [70.00;83.00]  | 80.00 [70.00;83.50]  |  0.925  |
| Hypertension: |   |   |  < 0.001  |   |   |  < 0.001  |
|  0 | 1424 (83.42%) | 54 (31.40%)  |   | 596 (82.89%) | 28 (32.18%)  |   |
|  1 | 283 (16.58%) | 118 (68.60%) |   | 123 (17.11%) | 59 (67.82%)  |   |
| Diabetes: |   |   |  < 0.001  |   |   |  < 0.001  |
|  0 | 1547 (90.63%) | 87 (50.58%)  |   | 647 (89.99%) | 49 (56.32%)  |   |
|  1 | 160 (9.37%)  | 85 (49.42%)  |   | 72 (10.01%)  | 38 (43.68%)  |   |
| Hyperuricemia: |   |   |  0.154  |   |   |  0.912  |
|  0 | 1585 (92.85%) | 154 (89.53%) |   | 660 (91.79%) | 79 (90.80%)  |   |
|  1 | 122 (7.15%)  | 18 (10.47%)  |   | 59 (8.21%)  | 8 (9.20%)  |   |
| Dyslipidemia: |   |   |  < 0.001  |   |   |  < 0.001  |
|  0 |  1532 (89.75%) | 81 (47.09%)  |   | 637 (88.60%) | 40 (45.98%)  |   |
|  1 | 175 (10.25%) | 91 (52.91%)  |   | 82 (11.40%)  | 47 (54.02%)  |   |
| NAFLD: |   |   |  0.507  |   |   |  0.553  |
|  0 |  1438 (84.24%) | 141 (81.98%) |   | 606 (84.28%) | 76 (87.36%)  |   |
|  1 | 269 (15.76%) | 31 (18.02%)  |   | 113 (15.72%) | 11 (12.64%)  |   |
| WBC | 6.48 [5.39;7.79]  | 6.73 [5.74;8.24]  | 0.019  | 6.53 [5.42;7.89]  |  6.50 [5.36;7.62]  |  0.527  |
| PLT | 232.00 [196.00;275.00] | 214.50 [171.00;252.00] |  0.001  | 230.00 [194.00;272.00] | 211.00 [174.50;247.50] |  0.001  |
| Hb | 135.00 [124.00;147.00] | 134.00 [122.00;146.00] |  0.305  | 136.00 [123.00;146.00] | 133.00 [126.00;144.50] |  0.623  |
| RBC |  4.45 [4.08;4.80]  |  4.37 [4.00;4.73]  |  0.160  |  4.46 [4.06;4.80]  |  4.34 [4.04;4.71]  |  0.187  |
| Mono |  0.49 [0.38;0.62]  |  0.53 [0.40;0.67]  |  0.022  |  0.49 [0.38;0.62]  |  0.50 [0.38;0.62]  |  0.812  |
| Neut |  3.89 [3.05;4.92]  |  4.35 [3.38;5.54]  |  0.001  |  3.93 [3.05;4.92]  |  3.90 [3.24;4.76]  |  0.832  |
| Lymph |  1.74 [1.39;2.15]  |  1.60 [1.27;2.01]  |  0.005  |  1.75 [1.38;2.10]  |  1.50 [1.19;1.86]  |  0.001  |
| NLR |  2.20 [1.64;3.06]  |  2.65 [2.02;3.67]  |  0.001  |  2.23 [1.68;3.14]  |  2.50 [1.93;3.31]  |  0.010  |
| SII | 509.60 [345.04;761.97] | 607.43 [357.15;832.21] |  0.100  | 502.15 [358.27;755.91] | 517.03 [385.97;771.67] |  0.588  |
| MCV |  91.60 [88.70;94.85]  |  91.70 [88.90;95.17]  |  0.417  |  91.60 [88.80;94.60]  |  92.70 [89.50;96.85]  |  0.010  |
| RDW-CV |  13.30 [12.80;13.80]  |  13.40 [12.90;14.30]  |  0.008  |  13.20 [12.80;13.90]  |  13.50 [13.10;14.10]  |  0.002  |
| Hct |  40.80 [37.50;43.90]  |  40.10 [37.10;43.85]  |  0.290  |  40.90 [37.05;43.95]  |  40.50 [38.15;43.30]  |  0.885  |
| PDW |  16.30 [15.80;16.70]  |  16.40 [16.00;16.80]  |  0.017  |  16.30 [15.90;16.70]  |  16.50 [16.10;16.95]  |  0.007  |
| PLT-PCT |  0.20 [0.17;0.24]  |  0.19 [0.16;0.22]  |  0.001  |  0.20 [0.17;0.24]  |  0.17 [0.15;0.21]  |  0.001  |
| MPV |  8.60 [7.90;9.60]  |  8.70 [7.88;9.60]  |  0.432  |  8.60 [7.80;9.60]  |  8.60 [7.90;9.45]  |  0.647  |
| MCHC | 333.00 [328.00;338.00] | 333.00 [327.75;337.00] |  0.956  | 332.00 [327.00;337.00] | 331.00 [327.00;335.50] |  0.339  |
| FBG |  4.95 [4.57;5.57]  |  6.23 [5.32;8.66]  |  0.001  |  5.00 [4.59;5.70]  |  6.08 [4.99;8.73]  |  0.001  |
| GA |  13.00 [11.90;14.20]  |  14.45 [12.57;17.65]  |  0.001  |  12.90 [11.80;14.30]  |  13.90 [12.30;16.15]  |  0.001  |
| apoE |  37.70 [31.40;45.10]  |  35.15 [30.35;42.90]  |  0.021  |  38.00 [31.70;45.45]  |  37.00 [29.90;43.85]  |  0.298  |
| apoB |  0.89 [0.73;1.06]  |  0.85 [0.69;1.02]  |  0.075  |  0.88 [0.73;1.03]  |  0.82 [0.67;1.03]  |  0.212  |
| apoAI |  1.14 [1.00;1.32]  |  1.15 [0.98;1.30]  |  0.817  |  1.14 [0.99;1.31]  |  1.16 [1.02;1.35]  |  0.282  |
| LPa | 121.10 [55.30;271.50]  | 144.75 [63.17;310.52]  |  0.116  | 132.60 [60.55;244.60]  | 168.90 [71.70;297.55]  |  0.073  |
| LDH | 160.50 [138.60;190.75] | 175.00 [146.05;204.98] |  0.001  | 160.70 [137.75;187.60] | 176.90 [149.10;216.80] |  0.001  |
| α-HBDH | 121.90 [105.50;141.00] | 127.10 [110.00;148.48] |  0.019  | 120.50 [106.65;140.05] | 127.00 [109.60;155.40] |  0.044  |
| CK |  71.00 51.00;98.60]  | 77.65 52.95;115.35]  |  0.055  | 72.00 53.05;98.75]  | 78.00 [52.55;125.05]  |  0.241  |
| CK-MB |  9.90 [6.90;12.90]  |  9.55 [4.48;14.00]  |  0.401  |  9.60 [6.45;13.05]  |  9.90 [3.83;12.95]  |  0.586  |
| Ca |  2.27 [2.20;2.34]  |  2.27 [2.21;2.34]  |  0.882  |  2.27 [2.20;2.35]  |  2.25 [2.18;2.33]  |  0.232  |
| P |  1.26 [1.13;1.40]  |  1.19 [1.06;1.29]  |  0.001  |  1.27 [1.15;1.40]  |  1.16 [1.04;1.26]  |  0.001  |
| K |  4.00 [3.80;4.20]  |  4.00 [3.77;4.25]  |  0.668  |  4.00 [3.81;4.19]  |  3.98 [3.78;4.25]  |  0.875  |
| TP |  64.90 [61.40;68.30]  |  63.85 [60.50;67.40]  |  0.040  |  64.80 [61.10;68.40]  |  63.10 [60.35;68.05]  |  0.048  |
| PA | 215.10 [170.40;256.00] | 217.85 [170.70;264.45] |  0.545  | 219.80 [174.50;263.70] | 215.10 [163.15;245.40] |  0.210  |
| ALB |  38.90 [36.20;41.45]  |  37.75 [34.60;40.12]  |  0.001  |  39.00 [36.30;41.50]  |  38.00 [35.25;40.25]  |  0.015  |
| GLO |  25.80 [23.30;28.70]  |  26.00 [24.00;29.10]  |  0.171  |  25.60 [23.10;28.80]  |  25.80 [23.50;28.05]  |  0.613  |
| GGT |  19.50 [13.80;28.60]  |  24.50 [17.98;36.12]  |  0.001  |  20.00 [14.20;28.05]  |  24.50 [17.20;38.70]  |  0.003  |
| TBIL |  11.60 [9.30;14.60]  |  12.32 [9.30;14.87]  |  0.417  |  11.40 [8.90;14.20]  |  11.10 [8.85;15.90]  |  0.532  |
| DBIL |  3.20 [2.50;4.26]  |  3.40 [2.70;4.60]  |  0.021  |  3.20 [2.41;4.05]  |  3.70 [2.81;4.80]  |  0.002  |
| TBA |  3.80 [2.30;6.90]  |  4.30 [2.48;7.03]  |  0.254  |  3.90 [2.30;6.40]  |  4.30 [2.55;6.85]  |  0.121  |
| UA | 357.40 [291.60;426.75] | 374.95 [310.28;440.30] |  0.040  | 362.20 [299.95;438.35] | 352.00 [309.10;424.50] |  0.681  |
| Crea |  66.00 [56.00;77.00]  |  74.50 [59.58;90.05]  |  0.001  |  66.60 [56.15;76.50]  |  67.40 [58.10;76.30]  |  0.544  |
| Urea |  4.10 [3.28;5.11]  |  5.26 [4.13;6.86]  |  0.001  |  4.24 [3.37;5.28]  |  5.17 [3.94;5.98]  |  0.001  |
| AST |  19.90 [16.10;25.05]  |  19.55 [15.67;23.77]  |  0.212  |  20.00 [16.30;25.70]  |  19.40 [16.00;25.80]  |  0.676  |
| ALT |  18.00 [12.50;27.05]  |  17.50 [13.30;25.75]  |  0.833  |  18.40 [13.15;29.50]  |  17.70 [12.85;26.05]  |  0.219  |
| PT |  11.10 [10.50;11.70]  |  11.00 [10.50;11.60]  |  0.518  |  11.00 [10.50;11.65]  |  10.90 [10.50;11.55]  |  0.935  |
| FDP |  1.10 [0.53;2.01]  |  1.38 [0.80;2.74]  |  0.001  |  1.14 [0.56;2.00]  |  1.36 [0.69;2.30]  |  0.172  |
| APTT |  31.90 [29.90;33.90]  |  30.85 [28.80;33.02]  |  0.001  |  32.20 [30.00;34.10]  |  30.80 [29.25;32.95]  |  0.004  |
| TT |  14.40 [13.60;15.20]  |  14.30 [13.60;15.30]  |  0.893  |  14.30 [13.70;15.20]  |  14.40 [13.70;15.20]  |  0.877  |
| D-Dimer |  0.15 [0.07;0.93]  |  0.22 [0.10;88.00]  |  0.001  |  0.17 [0.08;1.35]  |  0.20 [0.08;0.81]  |  0.738  |
| CRP |  3.24 [1.60;8.34]  |  4.25 [1.79;11.80]  |  0.051  |  3.00 [1.65;8.78]  |  4.00 [1.78;12.65]  |  0.134  |
| ESR |  7.00 [3.00;14.00]  |  9.00 [5.00;18.50]  |  0.001  |  7.00 [3.00;14.00]  |  8.00 [4.50;15.00]  |  0.239  |
| C3 |  1.06 [0.91;1.21]  |  1.08 [0.95;1.22]  |  0.126  |  1.06 [0.92;1.22]  |  1.10 [0.92;1.23]  |  0.593  |
| C4 |  0.22 [0.18;0.27]  |  0.23 [0.19;0.28]  |  0.030  |  0.22 [0.18;0.26]  |  0.22 [0.18;0.26]  |  0.683  |
| IgA |  2.38 [1.75;3.15]  |  2.58 [1.95;3.51]  |  0.017  |  2.28 [1.71;3.12]  |  2.31 [1.83;3.52]  |  0.295  |
| IgG |  10.65 [8.99;12.40]  |  10.50 [8.52;12.29]  |  0.411  |  10.57 [8.84;12.34]  |  10.18 [8.55;12.20]  |  0.472  |
| C1q | 167.52 [147.28;191.53] | 158.83 [140.28;179.93] |  0.001  | 167.31 [150.30;189.60] | 158.56 [138.38;181.71] |  0.021  |
| MHR | 0.39 [0.34;0.44] | 0.40 [0.35;0.46] |  0.008  | 0.39 [0.35;0.43] | 0.41 [0.36;0.45] |  0.077  |
| TyG | 4.63 [4.46;4.82] | 4.80 [4.60;5.03] |  < 0.001  | 4.63 [4.46;4.83] | 4.75 [4.58;4.96] |  < 0.001  |