

Supplementary Table 4. Baseline characteristics of the study subjects

| Characteristics | Total (n=2,606) | 90-day mRS ≤2 (n=1,613) | 90-day mRS >2 (n=993) | P | #NA |
|---|--------------------|-------------------------|-----------------------|--------|-----|
| Age (yr) | 70 (61–76) | 67 (58–74) | 73 (66–79) | <0.001 | 1 |
| Male sex | 1,574 (60.40) | 1,045 (64.79) | 529 (53.27) | <0.001 | 0 |
| Hypertension | 1,748 (67.08) | 1,078 (66.83) | 670 (67.47) | 0.768 | 0 |
| Diabetes | 735 (28.20) | 434 (26.91) | 301 (30.31) | 0.071 | 3 |
| Hyperlipidemia | 1,001 (38.41) | 722 (44.76) | 279 (28.10) | <0.001 | 5 |
| Current smoking status | 906 (34.77) | 601 (37.26) | 305 (30.72) | <0.001 | 2 |
| Previous stroke including TIA | 212 (8.14) | 142 (8.80) | 70 (7.05) | 0.129 | 0 |
| BMI (kg/m ²) | 23.5 (21.48–25.51) | 23.71 (21.92–25.78) | 23.12 (20.83–24.98) | <0.001 | 88 |
| SBP (mm Hg) | 140 (130–160) | 142 (130–160) | 140 (120–160) | <0.001 | 4 |
| DBP (mm Hg) | 86 (79–100) | 88 (80–100) | 83.5 (71–95) | <0.001 | 3 |
| Hematocrit (%) | 40.4 (37.2–43.7) | 41.1 (37.8–44.2) | 39.4 (36.1–42.6) | <0.001 | 13 |
| Hemoglobin (g/dL) | 13.8 (12.6–15) | 14 (12.9–15.2) | 13.4 (12.2–14.7) | <0.001 | 3 |
| Glucose (mg/dL) | 126 (108–159) | 123 (106–154) | 132 (111–166) | <0.001 | 6 |
| Creatinine (mg/dL) | 0.83 (0.7–1.01) | 0.86 (0.7–1.02) | 0.8 (0.7–1) | 0.041 | 3 |
| Total cholesterol (mg/dL) | 176.5 (149–204.25) | 177 (149–206) | 175 (149–203) | 0.266 | 14 |
| HDL-C (mg/dL) | 47 (38–56) | 47 (38–56) | 47 (38–57) | 0.881 | 86 |
| LDL-C (mg/dL) | 112 (86–137) | 112 (86–137) | 111 (87–135.5) | 0.512 | 71 |
| Admission NIHSS | 5 (2–10) | 3 (1–6) | 10 (5–15) | <0.001 | 0 |
| Duration between stroke onset and admission | 4.04 (1.82–10.6) | 4.32 (1.78–11.35) | 3.83 (1.85–9.27) | 0.089 | 0 |
| Reperfusion therapy | 988 (37.02) | 471 (28.32) | 517 (51.39) | <0.001 | 0 |
| Risk of cardiac embolic sources | 247 (9.48) | 151 (9.36) | 96 (9.67) | 0.849 | 0 |
| TOAST classification | | | | <0.001 | 8 |
| LAA | 675 (25.90) | 397 (24.61) | 278 (28.00) | | |
| CE | 768 (29.47) | 405 (25.11) | 363 (36.56) | | |
| SVO | 494 (18.96) | 395 (24.49) | 99 (9.97) | | |
| OE | 63 (2.42) | 45 (2.79) | 18 (1.81) | | |
| UE | 598 (22.95) | 365 (22.63) | 233 (23.46) | | |

Baseline characteristics of the study subjects, stratified by 90-day functional status (90-day mRS score >2 or not). Values are expressed as numbers (%) or medians (interquartile ranges). Statistical tests were conducted using the Wilcoxon signed-rank test for continuous variables, the chi-square test for binary categorical variables, and Fisher's exact test for multiple categorical variables. #NA column provides the actual numbers of each variable for missing data. mRS, modified Rankin Scale; TIA, transient ischemic attack; BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; NIHSS, National Institutes of Health Stroke Scale; TOAST, Trial of ORG 10172 in Acute Stroke Treatment; LAA, large-artery atherosclerosis; CE, cardioembolism; SVO, small-vessel occlusion; OE, other determined etiology; UE, undetermined etiology.

Supplementary Table 5. Average classification performance of the time-based CV

| | Clinical | b1000 | ADC | FLAIR | Ensemble |
|-----|----------|-------|-------|-------|----------|
| AUC | 0.745 | 0.728 | 0.694 | 0.669 | 0.779 |
| F1 | 0.609 | 0.597 | 0.570 | 0.559 | 0.642 |
| SEN | 0.683 | 0.589 | 0.638 | 0.637 | 0.693 |
| SPE | 0.658 | 0.767 | 0.641 | 0.614 | 0.716 |
| PPV | 0.564 | 0.610 | 0.521 | 0.506 | 0.607 |
| NPV | 0.777 | 0.755 | 0.747 | 0.740 | 0.796 |

Average classification performance of the time-based 5-fold CV. The following metrics were reported for each model: AUC, F1 score, SEN, SPE, PPV, and NPV.

CV, cross-validation; AUC, area under the curve; SEN, sensitivity; SPE, specificity; PPV, positive predictive value; NPV, negative predictive value.