

**Table S8** Association between METS-IR and the risk of stroke in CHARLS cohort according to age, metabolic status, and polypharmacy

| Metabolic status |            |       |              |         | Age       |            |       |              |         | Polypharmacy*                          |           |       |              |         |
|------------------|------------|-------|--------------|---------|-----------|------------|-------|--------------|---------|----------------------------------------|-----------|-------|--------------|---------|
| n (%)            |            | HR    | 95%CI        | P value | n (%)     |            | HR    | 95%CI        | P value | n (%)                                  |           | HR    | 95%CI        | P value |
| NGR              |            |       |              |         | 45 to 60  |            |       |              |         | Regularly took more than 3 medications |           |       |              |         |
| METS-IR          | 306 (7.7)  | 1.030 | 1.016-1.045  | <0.001  | METS-IR   | 289 (9.6)  | 1.037 | 1.022-1.052  | <0.001  | METS-IR                                | 270 (8.7) | 1.024 | 1.007-1.041  | <0.001  |
| Quartiles        |            |       |              |         | Quartiles |            |       |              |         | Quartiles                              |           |       |              |         |
| Q1               | 76 (5.7)   | Ref   |              |         | Q1        | 61 (8.1)   | Ref   |              |         | Q1                                     | 56 (7.2)  | Ref   |              |         |
| Q2               | 90 (7.9)   | 0.996 | 0.733-1.354  | 0.981   | Q2        | 71 (9.5)   | 1.053 | 0.771-1.437  | 0.747   | Q2                                     | 60 (7.7)  | 0.961 | 0.680-1.355  | 0.815   |
| Q3               | 72 (7.7)   | 1.178 | 0.997-1.392  | 0.055   | Q3        | 75 (10.0)  | 1.122 | 0.972-1.296  | 0.117   | Q3                                     | 72 (9.3)  | 1.063 | 0.916-1.234  | 0.422   |
| Q4               | 68 (11.7)  | 1.305 | 1.054-1.573  | 0.004   | Q4        | 82 (10.9)  | 1.362 | 1.208-1.535  | <0.001  | Q4                                     | 82 (10.6) | 1.281 | 1.113-1.475  | 0.016   |
| Pre-DM           |            |       |              |         | 60 to 75  |            |       |              |         | Regularly took 1 to 3 medications      |           |       |              |         |
| METS-IR          | 390 (9.5)  | 1.029 | 1.017-1.041  | <0.001  | METS-IR   | 472 (10.5) | 1.036 | 1.024-1.049  | <0.001  | METS-IR                                | 264 (8.5) | 1.027 | 1.013-1.041  | <0.001  |
| Quartiles        |            |       |              |         | Quartiles |            |       |              |         | Quartiles                              |           |       |              |         |
| Q1               | 56 (6.2)   | Ref   |              |         | Q1        | 96 (8.5)   | Ref   |              |         | Q1                                     | 66 (8.5)  | Ref   |              |         |
| Q2               | 82 (8.3)   | 1.398 | 1.066-1.777  | 0.004   | Q2        | 116 (10.3) | 1.384 | 1.161-1.650  | <0.001  | Q2                                     | 62 (8.0)  | 0.779 | 0.457-2.243  | 0.266   |
| Q3               | 112 (10.1) | 1.993 | 1.702-2.333  | 0.015   | Q3        | 122 (10.8) | 1.929 | 1.653-2.25   | <0.001  | Q3                                     | 75 (9.7)  | 0.913 | 0.609-2.973  | 0.318   |
| Q4               | 140 (12.4) | 2.464 | 2.125-2.830  | <0.001  | Q4        | 138 (12.2) | 2.393 | 2.167-2.637  | <0.001  | Q4                                     | 61 (7.9)  | 1.372 | 0.880-2.649  | 0.543   |
| DM               |            |       |              |         | ≥ 75      |            |       |              |         | Never regularly used medications       |           |       |              |         |
| METS-IR          | 153 (11.0) | 1.027 | 1.012-1.430  | <0.001  | METS-IR   | 229 (11.5) | 1.033 | 1.017-1.049  | <0.001  | METS-IR                                | 315 (9.5) | 1.027 | 1.006-1.047  | 0.009   |
| Quartiles        |            |       |              |         | Quartiles |            |       |              |         | Quartiles                              |           |       |              |         |
| Q1               | 10 (7.1)   | Ref   |              |         | Q1        | 51 (10.2)  | Ref   |              |         | Q1                                     | 70 (8.4)  | Ref   |              |         |
| Q2               | 15 (5.9)   | 3.593 | 1.068-8.002  | 0.008   | Q2        | 60 (12.0)  | 3.552 | 1.729-7.297  | <0.001  | Q2                                     | 75 (9.0)  | 0.852 | 0.266-7.974  | 0.152   |
| Q3               | 35 (10.6)  | 4.337 | 1.318-10.230 | <0.001  | Q3        | 55 (11.0)  | 4.264 | 1.736-10.988 | <0.001  | Q3                                     | 74 (8.9)  | 1.202 | 0.880-12.125 | 0.231   |
| Q4               | 93 (13.9)  | 6.001 | 2.012-17.900 | <0.001  | Q4        | 63 (12.6)  | 5.565 | 3.734-9.327  | <0.001  | Q4                                     | 96 (11.6) | 4.379 | 0.650-15.291 | 0.357   |

\*: Including oral medications for the treatment of metabolic syndrome, hypertension, and diabetes mellitus