**Supplementary Table 1.** Risk of total stroke, ischemic stroke, and hemorrhagic stroke diagnosed only by inpatient or emergency encounters according to baseline and mean follow-up hemoglobin A1c level in patients with type 2 diabetes

| Variable                      | Hemoglobin A1c (%) | P for trend |
|-------------------------------|--------------------|------------|
|                               | <6.0   | 6.0–6.9 | 7.0–7.9 | 8.0–8.9 | 9.0–9.9 | ≥10 |
| **Baseline hemoglobin A1c level** |        |         |         |         |         |     |
| No. of patients               | 9,956  | 22,030 | 11,374 | 5,714   | 3,464   | 6,971|
| Total stroke                  |        |         |         |         |         |     |
| No. of cases                  | 525    | 913    | 607    | 326     | 201     | 374 |
| Person-years                  | 35,729 | 88,528 | 47,601 | 23,299  | 13,748  | 26,117|
| Age-and sex-adjustment        | 1.40 (1.26–1.56) | 1.00 | 1.32 (1.19–1.47) | 1.62 (1.42–1.84) | 1.89 (1.62–2.21) | 2.24 (1.98–2.54) | <0.001 |
| Multivariable adjustment      | 1.31 (1.11–1.54) | 1.00 | 1.35 (1.15–1.58) | 1.43 (1.17–1.75) | 1.56 (1.31–2.11) | 1.72 (1.58–2.33) | <0.001 |
| **Ischemic stroke**           |        |         |         |         |         |     |
| No. of cases                  | 444    | 819    | 541    | 295     | 181     | 343 |
| Person-years                  | 35,592 | 88,330 | 47,460 | 23,229  | 13,702  | 26,063|
| Age-and sex-adjustment        | 1.31 (1.17–1.47) | 1.00 | 1.32 (1.18–1.47) | 1.63 (1.43–1.86) | 1.90 (1.61–2.23) | 2.28 (2.00–2.59) | <0.001 |
| Multivariable adjustment      | 1.16 (1.03–1.30) | 1.00 | 1.30 (1.09–1.55) | 1.28 (1.02–1.61) | 1.59 (1.22–2.07) | 1.91 (1.55–2.37) | <0.001 |
| **Hemorrhagic stroke**        |        |         |         |         |         |     |
| No. of cases                  | 81     | 94     | 66     | 31      | 20      | 31  |
| Person-years                  | 35,150 | 87,439 | 46,840 | 22,886  | 13,748  | 25,580|
| Age-and sex-adjustment        | 2.16 (1.60–2.90) | 1.00 | 1.42 (1.01–1.90) | 2.09 (1.38–3.17) | 1.97 (1.15–3.42) | 2.04 (1.28–3.24) | <0.001 |
| Multivariable adjustment      | 1.93 (1.37–2.72) | 1.00 | 1.59 (1.10–2.30) | 2.21 (1.44–3.40) | 2.04 (1.16–3.58) | 1.89 (1.16–3.08) | <0.001 |
| **Mean follow-up hemoglobin A1c level** |        |         |         |         |         |     |
| No. of patients               | 7,375  | 19,385 | 20,439 | 6,003   | 3,124   | 3,183|
| Total stroke                  |        |         |         |         |         |     |
| No. of cases                  | 467    | 859    | 846    | 364     | 199     | 211 |
| Person-years                  | 28,156 | 79,213 | 77,190 | 25,094  | 12,848  | 12,520|
| Age-and sex-adjustment        | 1.46 (1.31–1.64) | 1.00 | 1.10 (1.00–1.21) | 1.68 (1.49–1.90) | 2.12 (1.82–2.48) | 2.69 (2.31–3.14) | <0.001 |
| Multivariable adjustment      | 1.40 (1.17–1.67) | 1.00 | 1.19 (1.03–1.37) | 1.45 (1.19–1.76) | 1.95 (1.54–2.48) | 2.55 (2.03–3.21) | <0.001 |
| Ischemic stroke               |        |         |         |         |         |     |
| No. of cases                  | 391    | 733    | 751    | 335     | 181     | 192 |
| Person-years                  | 28,016 | 79,026 | 77,014 | 25,034  | 12,807  | 12,479|
| Age-and sex-adjustment        | 1.36 (1.20–1.53) | 1.00 | 1.08 (0.98–1.19) | 1.72 (1.51–1.96) | 2.14 (1.82–2.53) | 2.72 (2.31–3.19) | <0.001 |
| Multivariable adjustment      | 1.19 (1.03–1.46) | 1.00 | 1.13 (0.96–1.33) | 1.40 (1.13–1.74) | 1.96 (1.51–2.54) | 2.34 (1.81–3.01) | <0.001 |
| Hemorrhagic stroke            |        |         |         |         |         |     |
| No. of cases                  | 76     | 86     | 95     | 29      | 18      | 19  |
| Person-years                  | 27,634 | 78,152 | 76,207 | 24,594  | 12,565  | 12,220|
| Age-and sex-adjustment        | 2.41 (1.77–3.29) | 1.00 | 1.59 (1.14–2.22) | 1.65 (1.03–2.64) | 1.86 (1.01–3.48) | 2.67 (1.67–4.18) | <0.001 |
| Multivariable adjustment      | 2.32 (1.61–3.35) | 1.00 | 1.48 (1.05–2.07) | 1.66 (1.03–2.68) | 1.82 (0.96–3.43) | 2.30 (1.21–3.22) | <0.001 |

Values are presented as hazard ratio (95% confidence interval) unless otherwise indicated. Multivariable adjustment included age, sex, race, body mass index, systolic blood pressure, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, triglycerides, estimated glomerular filtration rate, smoking, insurance type, use of antihypertensive drugs, use of glucose lowering drugs, use of lipid-lowering drugs, use of antiplatelet or anticoagulant drugs, and presence of atrial fibrillation.