

Additional file 1

**Table S1.** Cox regression models for the association of triglyceride-glucose index and secondary outcomes

|                                        | Univariate |           |         | Multivariable |            |         |
|----------------------------------------|------------|-----------|---------|---------------|------------|---------|
|                                        | HR         | 95%CI     | P value | HR            | 95%CI      | P value |
| <b>All-cause death</b>                 |            |           |         |               |            |         |
| Tertile 1                              | Ref.       |           |         | Ref.          |            |         |
| Tertile 2                              | 1.51       | 1.00-2.27 | 0.052   | 1.55          | 1.01-2.38  | 0.044   |
| Tertile 3                              | 1.71       | 1.14-2.56 | 0.009   | 1.62          | 1.06-2.48  | 0.026   |
| <b>Non-fatal myocardial infarction</b> |            |           |         |               |            |         |
| Tertile 1                              | Ref.       |           |         | Ref.          |            |         |
| Tertile 2                              | 1.27       | 0.61-2.65 | 0.517   | 1.20          | 0.57-2.50  | 0.634   |
| Tertile 3                              | 2.01       | 1.03-3.95 | 0.042   | 1.79          | 0.91-3.52  | 0.093   |
| <b>Non-fatal stroke</b>                |            |           |         |               |            |         |
| Tertile 1                              | Ref.       |           |         | Ref.          |            |         |
| Tertile 2                              | 3.59       | 0.75-17.3 | 0.111   | 3.06          | 0.63-14.98 | 0.167   |
| Tertile 3                              | 1.59       | 0.27-9.51 | 0.612   | 1.07          | 0.17-6.58  | 0.945   |
| <b>Gastrointestinal bleeding</b>       |            |           |         |               |            |         |
| Tertile 1                              | Ref.       |           |         | Ref.          |            |         |
| Tertile 2                              | 0.64       | 0.28-1.49 | 0.305   | 0.62          | 0.27-1.45  | 0.273   |
| Tertile 3                              | 1.11       | 0.54-2.31 | 0.771   | 0.99          | 0.48-2.06  | 0.978   |

CI, confidence interval; HR, hazard ratio; TyG, triglyceride-glucose.

**Table S2.** Baseline risk model for major adverse cardiovascular events

| <b>Variable</b>                  | <b>HR</b> | <b>95%CI</b> | <b>P value</b> |
|----------------------------------|-----------|--------------|----------------|
| Age                              | 1.02      | 1.00-1.03    | 0.049          |
| Male                             | 0.95      | 0.69-1.31    | 0.772          |
| Systolic blood pressure          | 0.99      | 0.98-1.00    | 0.124          |
| Diastolic blood pressure         | 0.98      | 0.97-1.00    | 0.027          |
| Heart rate                       | 1.01      | 1.00-1.02    | 0.010          |
| Diabetes mellitus                | 1.26      | 0.89-1.79    | 0.200          |
| Atrial fibrillation              | 1.39      | 0.91-2.13    | 0.133          |
| Cerebrovascular disease          | 1.54      | 1.11-2.13    | 0.009          |
| Cause of end-stage renal disease |           |              |                |
| Diabetes mellitus                | Ref.      |              |                |
| Hypertension                     | 1.28      | 0.79-2.06    | 0.315          |
| Glomerulonephritis               | 0.78      | 0.50-1.22    | 0.285          |
| Other/unknown                    | 1.08      | 0.72-1.60    | 0.721          |
| AMI as Index presentation        | 1.41      | 1.04-1.91    | 0.027          |
| Any left main disease            | 1.77      | 1.25-2.50    | 0.001          |
| 3-vessel disease                 | 1.86      | 1.36-2.53    | <0.001         |
| ACE inhibitor or ARB             | 0.84      | 0.63-1.12    | 0.223          |
| Calcium-channel blocker          | 0.85      | 0.63-1.14    | 0.273          |

ACE, angiotensin-converting enzyme; AMI, acute myocardial infarction;

ARB, angiotensin receptor blocker; CI, confidence interval; HR, hazard ratio.

**Table S3.** Cox regression models for the association of triglyceride-glucose index and MACE after excluding patients who experienced a MACE event during hospitalization

|           | <b>Model 1</b> |              |                | <b>Model 2</b> |              |                | <b>Model 3</b> |              |                |
|-----------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|
|           | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> |
| TyG index | 1.39           | 1.14-1.70    | <0.001         | 1.40           | 1.15-1.70    | <0.001         | 1.34           | 1.10-1.63    | 0.004          |
| Tertile 1 | Ref.           |              |                | Ref.           |              |                | Ref.           |              |                |
| Tertile 2 | 1.47           | 1.00-2.16    | 0.052          | 1.53           | 1.04-2.25    | 0.032          | 1.49           | 1.01-2.20    | 0.047          |
| Tertile 3 | 1.66           | 1.14-2.43    | 0.009          | 1.66           | 1.14-2.43    | 0.009          | 1.55           | 1.06-2.28    | 0.024          |

Model 1: unadjusted. Model 2: adjusted for age and sex. Model 3: adjusted for age, sex, systolic blood pressure, diastolic blood pressure, acute myocardial infarction as index presentation, left main disease, 3-vessel disease, angiotensin-converting enzyme inhibitor or angiotensin receptor blocker, and calcium-channel blocker.

CI, confidence interval; HR, hazard ratio; MACE, major adverse cardiovascular events; TyG, triglyceride-glucose.

**Table S4.** Cox regression models for the association of triglyceride-glucose index and MACE after excluding patients with blood glucose levels below 3.9 mmol/L

|           | <b>Model 1</b> |              |                | <b>Model 2</b> |              |                | <b>Model 3</b> |              |                |
|-----------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|
|           | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> | <b>HR</b>      | <b>95%CI</b> | <b>P value</b> |
| TyG index | 1.41           | 1.17-1.70    | <0.001         | 1.43           | 1.18-1.72    | <0.001         | 1.34           | 1.09-1.64    | 0.005          |
| Tertile 1 | Ref.           |              |                | Ref.           |              |                | Ref.           |              |                |
| Tertile 2 | 1.43           | 0.99-2.06    | 0.059          | 1.52           | 1.05-2.20    | 0.027          | 1.48           | 1.01-2.16    | 0.046          |
| Tertile 3 | 1.73           | 1.21-2.47    | 0.003          | 1.76           | 1.23-2.51    | 0.002          | 1.62           | 1.11-2.36    | 0.011          |

Model 1: unadjusted. Model 2: adjusted for age and sex. Model 3: adjusted for age, sex, systolic blood pressure, diastolic blood pressure, heart rate, diabetes mellitus, atrial fibrillation, cause of dialysis, acute myocardial infarction as index presentation, left main disease, 3-vessel disease, angiotensin-converting enzyme inhibitor or angiotensin receptor blocker, and calcium-channel blocker.

CI, confidence interval; HR, hazard ratio; MACE, major adverse cardiovascular events; TyG, triglyceride-glucose.

**Table S5. Baseline clinical characteristics of patients before and after propensity score matching**

| Characteristic                            | Before matching |               |          | After matching |               |          |
|-------------------------------------------|-----------------|---------------|----------|----------------|---------------|----------|
|                                           | ≤ 8.99 (n=423)  | >8.99 (n=536) | Std Diff | ≤ 8.99 (n=265) | >8.99 (n=265) | Std Diff |
| Age, mean (SD), yrs                       | 61.6 (10.9)     | 62.0 (10.2)   | 0.040    | 61.9 (10.3)    | 62.4 (9.9)    | 0.054    |
| Male, No. (%)                             | 325 (76.8)      | 390 (72.8)    | 0.094    | 199 (75.1)     | 207 (78.1)    | 0.071    |
| SBP, mean (SD), mmHg                      | 142.9 (24.6)    | 140.6 (25.2)  | 0.093    | 140.7 (24.1)   | 141.8 (25.5)  | 0.046    |
| DBP, mean (SD), mmHg                      | 79.6 (13.4)     | 78.0 (13.4)   | 0.120    | 78.5 (13.2)    | 78.3 (14.2)   | 0.018    |
| Heart rate, mean (SD), beats/min          | 79.3 (14.7)     | 81.4 (14.6)   | 0.143    | 80.4 (15.1)    | 79.7 (13.5)   | 0.044    |
| Medical history and risk factors, No. (%) |                 |               |          |                |               |          |
| Hypertension                              | 384 (90.8)      | 506 (94.4)    | 0.139    | 241 (90.9)     | 247 (93.2)    | 0.084    |
| Diabetes mellitus                         | 163 (38.5)      | 346 (64.6)    | 0.539    | 130 (49.1)     | 134 (50.6)    | 0.030    |
| Current smoker                            | 92 (21.7)       | 89 (16.6)     | 0.131    | 48 (18.1)      | 51 (19.2)     | 0.029    |
| Atrial fibrillation                       | 37 (8.7)        | 44 (8.2)      | 0.019    | 25 (9.4)       | 28 (10.6)     | 0.038    |
| Cerebrovascular disease                   | 77 (18.2)       | 107 (20.0)    | 0.045    | 48 (18.1)      | 47 (17.7)     | 0.010    |
| Valvular disease                          | 16 (3.8)        | 15 (2.8)      | 0.055    | 7 (2.6)        | 8 (3.0)       | 0.023    |
| Peripheral arterial disease               | 36 (8.5)        | 59 (11.0)     | 0.084    | 25 (9.4)       | 23 (8.7)      | 0.026    |
| Cause of ESRD, No. (%)                    |                 |               | 0.417    |                |               | 0.036    |
| Diabetes mellitus                         | 94 (22.2)       | 210 (39.2)    |          | 80 (30.2)      | 82 (30.9)     |          |
| Hypertension                              | 67 (15.8)       | 56 (10.4)     |          | 35 (13.2)      | 35 (13.2)     |          |
| Glomerulonephritis                        | 128 (30.3)      | 102 (19.0)    |          | 66 (24.9)      | 62 (23.4)     |          |
| Other/unknown                             | 134 (31.7)      | 168 (31.3)    |          | 84 (31.7)      | 86 (32.5)     |          |
| Dialysis modality, No. (%)                |                 |               | 0.160    |                |               | 0.016    |
| Hemodialysis                              | 401 (94.8)      | 486 (90.7)    |          | 249 (94.0)     | 248 (93.6)    |          |
| Peritoneal dialysis                       | 22 (5.2)        | 50 (9.3)      |          | 16 (6.0)       | 17 (6.4)      |          |
| Vintage, yrs                              |                 |               | 0.130    |                |               | 0.020    |
| <1                                        | 87 (20.6)       | 112 (20.9)    |          | 55 (20.8)      | 56 (21.1)     |          |

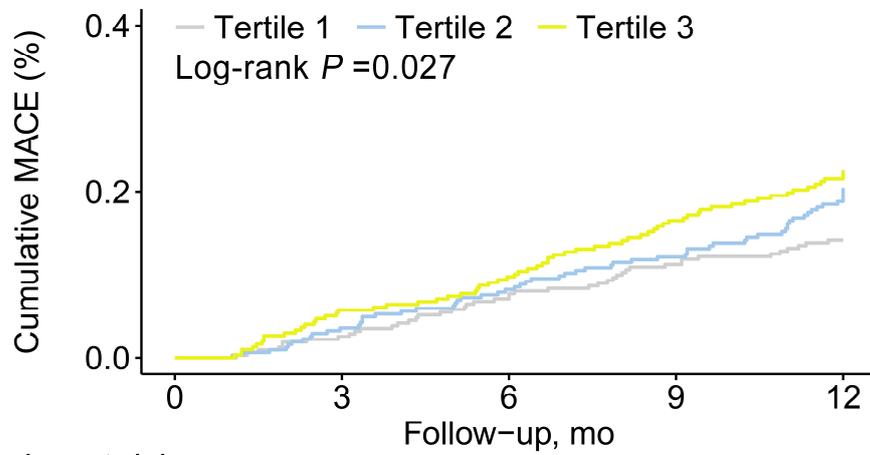
|                                   |              |              |       |              |              |        |
|-----------------------------------|--------------|--------------|-------|--------------|--------------|--------|
| 1-5                               | 183 (43.3)   | 261 (48.7)   |       | 120 (45.3)   | 118 (44.5)   |        |
| 5-10                              | 119 (28.1)   | 129 (24.1)   |       | 71 (26.8)    | 71 (26.8)    |        |
| ≥10                               | 34 (8.0)     | 34 (6.3)     |       | 19 (7.2)     | 20 (7.5)     |        |
| Index presentation, No. (%)       |              |              | 0.162 |              |              | <0.001 |
| AMI                               | 230 (54.4)   | 334 (62.3)   |       | 155 (58.5)   | 155 (58.5)   |        |
| Non-AMI                           | 193 (45.6)   | 202 (37.7)   |       | 110 (41.5)   | 110 (41.5)   |        |
| Hemoglobin, g/L                   | 105.6 (19.4) | 105.4 (20.1) | 0.009 | 105.0 (19.4) | 105.3 (20.3) | 0.015  |
| Glucose, mmol/L                   | 5.2 (1.5)    | 9.6 (4.6)    | 1.275 | 5.3 (1.6)    | 9.2 (4.3)    | 1.211  |
| Serum creatinine, mg/dl           | 9.0 (3.0)    | 8.8 (3.4)    | 0.078 | 8.7 (2.8)    | 8.9 (3.5)    | 0.046  |
| TG, mmol/L                        | 1.2 (0.5)    | 2.3 (1.0)    | 1.471 | 1.2 (0.5)    | 2.1 (0.9)    | 1.255  |
| TC, mmol/L                        | 3.6 (0.9)    | 4.0 (1.2)    | 0.361 | 3.8 (1.0)    | 3.8 (1.2)    | 0.051  |
| HDL-C, mmol/L                     | 1.0 (0.3)    | 0.9 (0.3)    | 0.407 | 1.0 (0.3)    | 1.0 (0.4)    | 0.070  |
| LDL-C, mmol/L                     | 2.2 (0.8)    | 2.4 (0.9)    | 0.223 | 2.2 (0.9)    | 2.2 (0.9)    | 0.005  |
| TyG index                         | 8.4 (0.5)    | 9.6 (0.5)    | 2.584 | 8.5 (0.4)    | 9.5 (0.4)    | 2.514  |
| Procedure characteristic, No. (%) |              |              |       |              |              |        |
| Radial access                     | 324 (76.6)   | 416 (77.6)   | 0.024 | 201 (75.8)   | 206 (77.7)   | 0.045  |
| Extent of disease                 |              |              |       |              |              |        |
| Any left main disease             | 45 (10.6)    | 66 (12.3)    | 0.053 | 30 (11.3)    | 28 (10.6)    | 0.024  |
| 2-vessel disease                  | 113 (26.7)   | 150 (28.0)   | 0.029 | 78 (29.4)    | 77 (29.1)    | 0.008  |
| 3-vessel disease                  | 220 (52.0)   | 324 (60.4)   | 0.171 | 153 (57.7)   | 150 (56.6)   | 0.023  |
| Moderate or severe calcification  | 183 (43.3)   | 249 (46.5)   | 0.064 | 122 (46.0)   | 119 (44.9)   | 0.023  |
| PCI treatment                     | 292 (69.0)   | 384 (71.6)   | 0.057 | 181 (68.3)   | 187 (70.6)   | 0.049  |
| Discharge medications, No. (%)    |              |              |       |              |              |        |
| Dual antiplatelet therapy         | 372 (87.9)   | 464 (86.6)   | 0.041 | 233 (87.9)   | 231 (87.2)   | 0.023  |
| ACE inhibitor or ARB              | 204 (48.2)   | 237 (44.2)   | 0.081 | 122 (46.0)   | 113 (42.6)   | 0.068  |
| Beta-blocker                      | 329 (77.8)   | 446 (83.2)   | 0.137 | 209 (78.9)   | 211 (79.6)   | 0.019  |

|                         |            |            |       |            |            |       |
|-------------------------|------------|------------|-------|------------|------------|-------|
| Calcium-channel blocker | 290 (68.6) | 330 (61.6) | 0.147 | 164 (61.9) | 165 (62.3) | 0.008 |
| Statin                  | 393 (92.9) | 506 (94.4) | 0.061 | 251 (94.7) | 249 (94.0) | 0.033 |

Data are presented as mean (SD) or n (%).

ACE, angiotensin-converting enzyme; AMI, acute myocardial infarction; ARB, angiotensin receptor blocker; DBP, diastolic blood pressure; ESRD, end-stage renal disease; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; PCI, percutaneous coronary intervention; SBP, systolic blood pressure; TC, total cholesterol; TG, triglycerides; TyG, triglyceride-glucose.

**Figure S1.** Kaplan-Meier Estimated Event Rates of MACE according to tertiles of the TyG index after excluding patients who experienced a MACE event during hospitalization

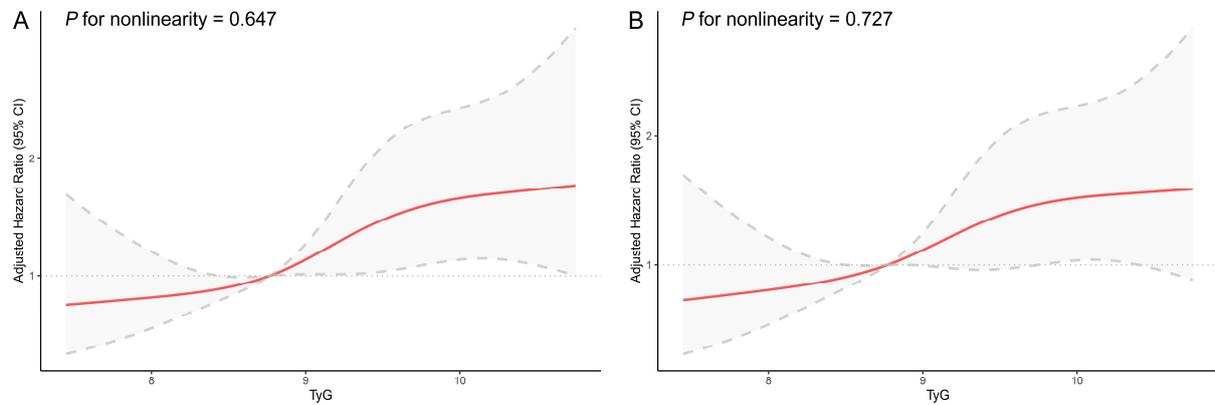


Number at risk

|           | 0   | 3   | 6   | 9   | 12  |
|-----------|-----|-----|-----|-----|-----|
| Tertile 1 | 312 | 304 | 290 | 274 | 264 |
| Tertile 2 | 306 | 294 | 279 | 265 | 244 |
| Tertile 3 | 300 | 281 | 268 | 247 | 231 |

MACE, major adverse cardiovascular events; TyG, triglyceride-glucose index.

**Figure S2.** Restricted cubic spline curves of the association between TyG index and MACE after excluding patients who experienced a MACE event during hospitalization.



**(A)** unadjusted model. **(B)** fully adjusted model.

Hazard ratios are indicated by solid red lines and 95% CIs are indicated by shaded areas.

CI, confidence interval; MACE, major adverse cardiovascular events; TyG, triglyceride-glucose index.