

Supplementary Table S1 Baseline characteristics

| Characteristic | Quartile 1 (n = 997) | Quartile 2 (n = 1,003) | Quartile 3 (n = 961) | Quartile 4 (n = 982) | p-Value |
|------------------------------------------|-------------------------|---------------------------|-------------------------|-------------------------|---------|
| Mean platelet count × 10 ⁹ /L | 159 ± 21.9 | 205 ± 10.3 | 241 ± 11.7 | 317 ± 68.6 | <0.001 |
| Age, y | 67.1 ± 11.5 | 64.9 ± 12.3 | 63.6 ± 11.9 | 62.9 ± 12.0 | <0.001 |
| Sex | | | | | |
| Female, no. (%) | 129 (12.9) | 211 (21.0) | 253 (26.3) | 345 (35.1) | <0.001 |
| Diabetes, no. (%) | 255 (25.6) | 219 (21.8) | 188 (19.6) | 216/981 (22.0) | 0.015 |
| Insulin-treated, no. (%) | 89 (8.9) | 60 (6.0) | 52 (5.4) | 71/981 (7.2) | 0.011 |
| Current smoker, no. (%) | 275/991 (27.7) | 317 (31.6) | 334/957 (34.9) | 392/976 (40.2) | <0.001 |
| Arterial hypertension, no. (%) | 728/994 (73.2) | 711 (70.9) | 647/960 (67.4) | 682/980 (69.6) | 0.039 |
| Hypercholesterolemia, no. (%) | 613/996 (61.5) | 598/1,002 (59.7) | 575/959 (60.0) | 523/979 (53.4) | 0.001 |
| Prior myocardial infarction, no. (%) | 199/996 (20.0) | 169 (16.8) | 135/959 (14.1) | 120 (12.2) | <0.001 |
| Prior PCI, no. (%) | 301/996 (30.2) | 237 (23.6) | 196/959 (20.4) | 174 (17.7) | <0.001 |
| Prior CABG, no. (%) | 110/996 (11.0) | 66 (6.6) | 39/960 (4.1) | 29 (2.9) | <0.001 |
| Cardiogenic shock, no. (%) | 17 (1.7) | 14 (1.4) | 15 (1.6) | 18 (1.8) | 0.882 |
| Systolic blood pressure, mmHg | 142 (24.1) | 144 (24.9) | 144 (25.3) | 143 (24.5) | 0.247 |
| Diastolic blood pressure, mmHg | 80.8 (13.8) | 82.1 (14.3) | 82.4 (14.2) | 82.2 (14.3) | 0.054 |
| Heart rate, beats/min | 74.8 (15.8) | 75.5 (15.1) | 76.7 (15.1) | 78.8 (16.5) | <0.001 |
| Body mass index, kg/m ² | 28.0 (4.35) | 27.9 (4.52) | 27.7 (4.30) | 27.6 (4.84) | 0.147 |
| Weight <60 kg, no. (%) | 29 (2.9) | 54 (5.4) | 45 (4.7) | 69 (7.1) | <0.001 |
| Creatinine, μmol/L | 92.7 (31.1) | 89.8 (31.5) | 86.1 (25.1) | 83.3 (26.1) | <0.001 |
| Diagnosis at admission | | | | | |
| Unstable angina, no. (%) | 163 (16.3) | 141 (14.1) | 119 (12.4) | 84 (8.6) | <0.001 |
| NSTEMI, no. (%) | 484 (48.5) | 475 (47.4) | 435 (45.3) | 452 (46.0) | |
| STEMI, no. (%) | 350 (35.1) | 387 (38.6) | 407 (42.4) | 446 (45.4) | |
| Coronary angiography, no. (%) | 994 (99.7) | 1000 (99.7) | 958 (99.7) | 977 (99.5) | 0.880 |
| Treatment strategy, no. (%) | | | | | |
| PCI | 816 (81.9) | 822 (82.0) | 816 (85.0) | 851 (86.8) | 0.028 |
| CABG | 26 (2.6) | 19 (1.9) | 20 (2.1) | 18 (1.8) | |
| Conservative | 154 (15.5) | 161 (16.1) | 124 (12.9) | 111 (11.3) | |

Abbreviations: CABG, coronary artery bypass grafting; NSTEMI, non-ST-elevation myocardial infarction; PCI, percutaneous coronary intervention; STEMI, ST-elevation myocardial infarction.

Note: Data are mean ± standard deviation or counts (%).

Missing continuous data:

Quartile 1 group: systolic blood pressure: 2 patients, diastolic blood pressure: 4 patients, heart rate: 1 patient, body mass index: 12 patients.

Quartile 2 group: systolic blood pressure: 1 patient, diastolic blood pressure: 5 patients, body mass index: 5 patients.

Quartile 3 group: body mass index: 7 patients.

Quartile 4 group: diastolic blood pressure: 2 patients, heart rate: 1 patient, body mass index: 7 patients.

The remaining continuous data were complete.

Supplementary Table S2 Angiographic and procedural characteristics

| Characteristic | Quartile 1 (n = 994) | Quartile 2 (n = 1,000) | Quartile 3 (n = 958) | Quartile 4 (n = 977) | p-Value |
|-------------------------------------------------|-------------------------|---------------------------|-------------------------|-------------------------|---------|
| Access site | | | | | |
| Femoral artery | 619 (62.3) | 635 (63.5) | 601 (62.7) | 620 (63.5) | 0.999 |
| Radial artery | 370 (37.2) | 360 (36.0) | 352 (36.7) | 353 (36.1) | |
| Other | 5 (0.5) | 5 (0.5) | 5 (0.5) | 4 (0.4) | |
| Number of diseased coronary arteries | | | | | |
| No obstructive CAD | 83 (8.4) | 89 (8.9) | 82 (8.6) | 79 (8.1) | 0.013 |
| One-vessel disease | 255 (25.7) | 297 (29.7) | 295 (30.8) | 309 (31.6) | |
| Two-vessel disease | 250 (25.2) | 266 (26.6) | 260 (27.1) | 273 (27.9) | |
| Three-vessel disease | 406 (40.8) | 348 (34.8) | 321 (33.5) | 316 (32.3) | |
| Left ventricular ejection fraction ^a | 51.3 ± 11.4 | 52.1 ± 11.0 | 52.4 ± 10.9 | 51.3 ± 11.6 | 0.090 |

Abbreviation: CAD, coronary artery disease.

Note: Data are shown as counts (proportion; %) or mean ± standard deviation. Angiographic data were not available for 3 patients in the quartile 1 group, 3 patients in the quartile 2 group, 3 patients in the quartile 3 group, and 5 patients in the quartile 4 group.

^aLeft ventricular ejection fraction was not available in 69 patients in the quartile 1 group, 63 patients in the quartile 2 group, 44 patients in the quartile 3 group, and 43 patients in the quartile 4 group.

Supplementary Table S3 Procedural characteristics

| Characteristic | Quartile 1 (n = 816) | Quartile 2 (n = 822) | Quartile 3 (n = 816) | Quartile 4 (n = 851) | p-Value |
|------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------|
| Target vessel | | | | | |
| Left main coronary artery | 19 (2.3) | 17 (2.1) | 18 (2.2) | 20 (2.4) | 0.285 |
| LAD coronary artery | 343 (42.0) | 344 (41.8) | 368 (45.1) | 374 (43.9) | |
| Left circumflex coronary artery | 171 (21.0) | 174 (21.2) | 159 (19.5) | 176 (20.7) | |
| Right coronary artery | 258 (31.6) | 275 (33.5) | 257 (31.5) | 273 (32.1) | |
| Bypass graft | 25 (3.1) | 12 (1.5) | 14 (1.7) | 8 (0.9) | |
| Complex lesion (type B2/C) | 465 (57.0) | 512 (62.3) | 475 (58.2) | 495 (58.2) | 0.140 |
| More than 1 lesion treated | 285 (34.9) | 272 (33.1) | 300 (36.8) | 292 (34.3) | 0.468 |
| TIMI flow grade before the intervention | | | | | |
| 0 | 261 (32.0) | 300 (36.5) | 263 (32.2) | 323 (38.0) | 0.094 |
| 1 | 65 (8.0) | 76 (9.3) | 62 (7.6) | 74 (8.7) | |
| 2 | 182 (22.3) | 176 (21.4) | 194 (23.8) | 180 (21.2) | |
| 3 | 308 (37.7) | 270 (32.8) | 297 (36.4) | 274 (32.2) | |
| TIMI flow grade after the intervention | | | | | |
| 0 | 12 (1.5) | 4 (0.5) | 6 (0.7) | 10 (1.2) | 0.533 |
| 1 | 4 (0.5) | 5 (0.6) | 2 (0.3) | 5 (0.6) | |
| 2 | 24 (2.9) | 20 (2.4) | 23 (2.8) | 17 (2.0) | |
| 3 | 776 (95.1) | 793 (96.5) | 785 (96.2) | 819 (96.2) | |
| Type of intervention | | | | | |
| Drug-eluting stent | 733 (89.8) | 737 (89.7) | 745 (91.3) | 766 (90.0) | 0.671 |
| Bare-metal stent | 2 (0.3) | 4 (0.5) | 0 (0.0) | 6 (0.7) | 0.067 |
| Bioresorbable vascular scaffold | 41 (5.0) | 54 (6.6) | 44 (5.4) | 47 (5.5) | 0.565 |
| Drug-eluting balloon | 22 (2.7) | 9 (1.1) | 16 (2.0) | 14 (1.7) | 0.109 |
| Plain balloon angioplasty | 26 (3.2) | 22 (2.7) | 22 (2.7) | 28 (3.3) | 0.827 |
| Maximal stent diameter (mm) | 3.2 (0.5) | 3.2 (0.5) | 3.2 (0.5) | 3.2 (0.5) | 0.176 |
| Total stented length (mm) | 30.8 (18.0) | 31.0 (17.6) | 30.1 (15.9) | 30.3 (16.2) | 0.676 |
| Successful PCI | 797 (97.7) | 807 (98.2) | 804 (98.5) | 825 (96.9) | 0.135 |
| Periprocedural antithrombotic medication | | | | | |
| Aspirin | 714 (87.5) | 729 (88.7) | 754 (92.4) | 771 (90.6) | 0.006 |
| Unfractionated heparin | 767 (94.0) | 771 (93.8) | 765 (93.8) | 803 (94.4) | 0.952 |
| Low-molecular-weight heparin | 38 (4.7) | 34 (4.1) | 26 (3.2) | 36 (4.2) | 0.489 |
| Bivalirudin | 60 (7.4) | 73 (8.9) | 69 (8.5) | 64 (7.5) | 0.614 |
| GPIIb/IIIa inhibitor | 87 (10.7) | 101 (12.3) | 112 (13.7) | 94 (11.0) | 0.213 |

Abbreviations: GPIIb/IIIa, glycoprotein IIb/IIIa; LAD, left anterior descending; PCI, percutaneous coronary intervention; TIMI, Thrombolysis in Myocardial Infarction.

Note: Data are shown as counts (proportions; %) or mean \pm standard deviation.

Supplementary Table S4 Clinical outcomes according to subgroup analyses and study drugs among platelet count quartiles

| | Quartile 1 (n = 997) | | | | Quartile 2 (n = 1,003) | | | | Quartile 3 (n = 961) | | | | Quartile 4 (n = 982) | | | |
|----------------------------|-------------------------|------------------------|----------------------|---------|---------------------------|------------------------|---------------------|--------------|-------------------------|------------------------|---------------------|--------------|-------------------------|------------------------|---------------------|--------------|
| | Ticagrelor (N = 485) | Prasugrel (N = 512) | HR [95% CI] | p-Value | Ticagrelor (N = 500) | Prasugrel (N = 503) | HR [95% CI] | p-Value | Ticagrelor (N = 482) | Prasugrel (N = 479) | HR [95% CI] | p-Value | Ticagrelor (N = 499) | Prasugrel (N = 483) | HR [95% CI] | p-Value |
| ≥75 y or <60 kg | | | | | | | | | | | | | | | | |
| Primary endpoint | 23/157 (15.0) | 16/158 (10.3) | 1.49 [0.79-2.83] | 0.217 | 20/130 (15.4) | 18/151 (12.1) | 1.28 [0.68-2.42] | 0.444 | 14/123 (11.6) | 12/112 (10.9) | 1.06 [0.49-2.30] | 0.874 | 21/136 (15.6) | 22/118 (19.0) | 0.78 [0.43-1.43] | 0.426 |
| BARC 3 to 5 bleeding | 12/155 (9.6) | 9/127 (7.9) | 1.20 [0.51-2.86] | 0.673 | 14/128 (14.3) | 6/133 (5.0) | 2.82 [1.08-7.34] | 0.033 | 9/121 (8.8) | 6/102 (6.8) | 1.34 [0.48-3.78] | 0.574 | 10/135 (9.1) | 13/99 (14.5) | 0.56 [0.25-1.28] | 0.167 |
| <75 y and ≥60 kg | | | | | | | | | | | | | | | | |
| Primary endpoint | 19/326 (5.9) | 16/349 (4.6) | 1.28 [0.66-2.48] | 0.472 | 29/369 (7.9) | 11/349 (3.2) | 2.58 [1.29-5.16] | 0.007 | 23/356 (6.6) | 14/366 (3.9) | 1.72 [0.89-3.35] | 0.109 | 29/361 (8.1) | 26/363 (7.3) | 1.13 [0.66-1.91] | 0.657 |
| BARC 3 to 5 bleeding | 12/324 (4.1) | 8/302 (2.7) | 1.53 [0.63-3.76] | 0.347 | 12/361 (3.8) | 9/311 (3.3) | 1.26 [0.53-3.00] | 0.594 | 9/354 (2.9) | 6/329 (1.9) | 1.53 [0.54-4.29] | 0.421 | 14/358 (4.4) | 21/330 (6.8) | 0.65 [0.33-1.27] | 0.204 |
| ≥75 y | | | | | | | | | | | | | | | | |
| Primary endpoint | 23/148 (15.9) | 15/149 (10.3) | 1.60 [0.83-3.06] | 0.157 | 18/116 (15.5) | 18/134 (13.7) | 1.14 [0.59-2.19] | 0.698 | 13/107 (12.4) | 11/104 (10.8) | 1.16 [0.52-2.58] | 0.721 | 19/112 (17.2) | 22/100 (22.4) | 0.71 [0.39-1.32] | 0.280 |
| BARC 3 to 5 bleeding | 12/146 (10.1) | 9/121 (8.3) | 1.21 [0.51-2.88] | 0.662 | 12/114 (13.5) | 5/121 (4.6) | 2.93 [1.03-8.32] | 0.043 | 7/106 (7.7) | 5/95 (6.2) | 1.34 [0.43-4.22] | 0.617 | 10/111 (10.9) | 13/83 (17.3) | 0.55 [0.24-1.26] | 0.158 |
| <75 y | | | | | | | | | | | | | | | | |
| Primary endpoint | 19/337 (5.7) | 17/363 (4.7) | 1.21 [0.63-2.32] | 0.570 | 31/384 (8.2) | 11/369 (3.0) | 2.80 [1.41-5.58] | 0.003 | 24/375 (6.5) | 15/375 (4.1) | 1.63 [0.85-3.10] | 0.139 | 31/387 (8.1) | 26/383 (6.9) | 1.19 [0.71-2.00] | 0.516 |
| BARC 3 to 5 bleeding | 12/335 (4.0) | 8/313 (2.7) | 1.54 [0.63-3.78] | 0.341 | 14/376 (4.4) | 10/326 (3.4) | 1.34 [0.60-3.03] | 0.476 | 11/372 (3.4) | 7/337 (2.2) | 1.56 [0.60-4.02] | 0.359 | 14/384 (4.1) | 21/348 (6.4) | 0.64 [0.33-1.26] | 0.196 |
| Women | | | | | | | | | | | | | | | | |
| Primary endpoint | 4/55 (7.3) | 4/74 (5.5) | 1.39 [0.35-5.57] | 0.639 | 8/109 (7.4) | 8/102 (7.9) | 0.93 [0.35-2.48] | 0.883 | 10/133 (7.7) | 12/120 (10.1) | 0.76 [0.33-1.75] | 0.517 | 18/170 (10.7) | 15/175 (8.7) | 1.25 [0.63-2.48] | 0.527 |
| BARC 3 to 5 bleeding | 6/54 (12.3) | 1/53 (1.9) | 7.17 [0.86-59.59] | 0.068 | 9/105 (13.1) | 5/82 (7.2) | 1.82 [0.61-5.45] | 0.282 | 8/132 (7.6) | 8/98 (8.9) | 0.82 [0.31-2.19] | 0.691 | 11/169 (7.9) | 19/147 (14.4) | 0.54 [0.26-1.13] | 0.102 |
| Men | | | | | | | | | | | | | | | | |
| Primary endpoint | 38/430 (8.9) | 28/438 (6.5) | 1.40 [0.86-2.28] | 0.179 | 41/391 (10.6) | 21/401 (5.3) | 2.06 [1.22-3.49] | 0.007 | 27/349 (7.8) | 14/359 (4.0) | 2.01 [1.06-3.85] | 0.033 | 32/329 (9.8) | 33/308 (10.9) | 0.89 [0.55-1.45] | 0.641 |
| BARC 3 to 5 bleeding | 18/427 (5.0) | 16/381 (4.5) | 1.09 [0.56-2.14] | 0.797 | 17/385 (5.0) | 10/365 (3.0) | 1.73 [0.79-3.77] | 0.171 | 10/346 (3.3) | 4/334 (1.3) | 2.60 [0.82-8.30] | 0.106 | 13/326 (4.5) | 15/284 (5.5) | 0.78 [0.37-1.64] | 0.512 |
| Smoker | | | | | | | | | | | | | | | | |
| Primary endpoint | 9/129 (7.1) | 9/146 (6.2) | 1.14 [0.45-2.87] | 0.784 | 14/158 (8.9) | 9/159 (5.7) | 1.62 [0.70-3.75] | 0.258 | 9/176 (5.2) | 7/158 (4.5) | 1.17 [0.43-3.13] | 0.759 | 14/200 (7.1) | 16/192 (8.4) | 0.84 [0.41-1.72] | 0.638 |
| BARC 3 to 5 bleeding | 3/127 (2.5) | 5/133 (3.9) | 0.65 [0.16-2.71] | 0.553 | 11/155 (8.5) | 3/151 (2.2) | 3.97 [1.11-14.2] | 0.034 | 5/176 (3.2) | 6/147 (4.3) | 0.76 [0.23-2.48] | 0.644 | 7/199 (4.0) | 18/179 (10.4) | 0.35 [0.15-0.85] | 0.020 |
| Nonsmoker | | | | | | | | | | | | | | | | |
| Primary endpoint | 32/354 (9.1) | 22/362 (6.2) | 1.51 [0.88-2.61] | 0.134 | 35/342 (10.3) | 20/344 (5.9) | 1.79 [1.03-3.09] | 0.038 | 27/304 (9.0) | 19/319 (6.1) | 1.51 [0.84-2.72] | 0.165 | 35/294 (12.0) | 31/290 (10.9) | 1.09 [0.68-1.78] | 0.712 |
| BARC 3 to 5 bleeding | 20/352 (6.8) | 12/297 (4.3) | 1.59 [0.78-3.25] | 0.204 | 15/335 (5.3) | 12/296 (4.5) | 1.23 [0.57-2.62] | 0.599 | 12/300 (4.7) | 6/283 (2.2) | 2.05 [0.77-5.47] | 0.150 | 17/291 (6.8) | 15/251 (6.7) | 1.04 [0.52-2.09] | 0.905 |

Supplementary Table S4 (Continued)

| | Quartile 1 (n = 957) | | | Quartile 2 (n = 1,003) | | | Quartile 3 (n = 961) | | | Quartile 4 (n = 982) | | | | | | |
|----------------------|-------------------------|------------------------|---------------------|---------------------------|-------------------------|------------------------|-------------------------|--------------|-------------------------|-------------------------|---------------------|---------|-------------------------|------------------------|---------------------|--------------|
| | Ticagrelor (N = 485) | Prasugrel (N = 512) | HR [95% CI] | p-Value | Ticagrelor (N = 500) | Prasugrel (N = 503) | HR [95% CI] | p-Value | Ticagrelor (N = 482) | Prasugrel (N = 479) | HR [95% CI] | p-Value | Ticagrelor (N = 499) | Prasugrel (N = 483) | HR [95% CI] | p-Value |
| Diabetes | | | | | | | | | | | | | | | | |
| Primary endpoint | 13/117 (11.3) | 13/138 (9.5) | 1.22 [0.57–2.63] | 0.614 | 13/114 (11.5) | 11/105 (10.7) | 1.09 [0.49–2.44] | 0.828 | 12/103 (11.9) | 10/85 (11.9) | 0.99 [0.43–2.30] | 0.984 | 12/117 (10.4) | 21/99 (21.9) | 0.45 [0.22–0.91] | 0.026 |
| BARC 3 to 5 bleeding | 5/114 (5.4) | 3/120 (2.8) | 2.03 [0.48–8.50] | 0.333 | 4/111 (4.6) | 2/92 (2.4) | 1.85 [0.34–10.1] | 0.477 | 8/101 (8.6) | 3/80 (4.1) | 2.19 [0.58–8.25] | 0.248 | 9/117 (8.6) | 11/89 (13.9) | 0.64 [0.27–1.55] | 0.325 |
| Nondiabetics | | | | | | | | | | | | | | | | |
| Primary endpoint | 29/368 (8.0) | 19/374 (5.1) | 1.56 [0.88–2.79] | 0.130 | 36/386 (9.4) | 18/398 (4.6) | 2.11 [1.20–3.72] | 0.009 | 25/379 (6.7) | 16/394 (4.1) | 1.65 [0.88–3.09] | 0.117 | 38/382 (10.1) | 26/383 (6.9) | 1.48 [0.90–2.44] | 0.122 |
| BARC 3 to 5 bleeding | 19/367 (5.9) | 14/314 (4.7) | 1.26 [0.63–2.51] | 0.511 | 22/379 (6.9) | 13/355 (4.1) | 1.76 [0.89–3.49] | 0.107 | 10/377 (3.2) | 9/352 (2.7) | 1.14 [0.46–2.81] | 0.773 | 15/378 (4.6) | 22/341 (6.8) | 0.65 [0.33–1.24] | 0.191 |

Abbreviations: BARC, Bleeding Academic Research Consortium; CI, confidence interval; HR, hazard ratio.

Note: The analysis was performed in selected prespecified subgroups, where the number of patients allowed for it in all quartiles. Statistically significant p-values are denoted in bold.