

Supplementary Table 1. Baseline clinical characteristics of propensity-score matched patients and the standardized differences of variables among unadjusted, propensity-score matched, and IPW-adjusted cohort among three groups

Characteristic	Unchanged clopidogrel (n = 1,321)	P2Y12RI switching (n = 1,321)	p value	Unadjusted SMD	PSM SMD	IPW SMD	Unchanged potent P2Y12RIs (n = 1,239)	P2Y12RI switching (n = 1,239)	p value	Unadjusted SMD	PSM SMD	IPW SMD
Age, yr	61.84 ± 0.35	62.03 ± 0.34	0.688	-0.2997	0.0154	-0.0136	61.36 ± 0.34	61.65 ± 0.34	0.550	0.1481	0.0243	-0.0051
Age ≥ 75 years	218 (16.5)	223 (16.9)	0.835	-0.3620	0.0150	-0.0208	189 (15.3)	196 (15.8)	0.739	0.1849	0.0237	0.0025
Male gender	1,003 (75.9)	1,030 (78.0)	0.230	0.1805	0.0636	0.0014	986 (79.6)	980 (79.1)	0.804	-0.1651	-0.0163	-0.0048
Hypertension	650 (49.2)	637 (48.2)	0.640	-0.1049	-0.0217	-0.0148	593 (47.9)	589 (47.5)	0.904	0.0979	-0.0071	-0.0021
Diabetes	333 (25.2)	332 (25.1)	1.000	-0.1103	-0.0022	-0.0051	308 (24.9)	306 (24.7)	0.963	0.0383	-0.0048	-0.0068
Dyslipidemia	140 (10.6)	132 (10.0)	0.654	-0.1060	-0.0362	-0.0328	126 (10.2)	126 (10.2)	1.000	-0.0601	0	-0.0050
Current smoker	548 (41.5)	566 (42.8)	0.503	0.1815	0.0308	-0.0071	550 (44.4)	545 (44.0)	0.871	-0.1012	-0.0090	0.0016
Family history of coronary artery disease	83 (6.3)	81 (6.1)	0.936	-0.0211	-0.0143	0.0601	81 (6.5)	75 (6.1)	0.679	-0.1109	-0.0453	0.0072
Previous history of angina	133 (10.1)	112 (8.5)	0.180	-0.1459	-0.0994	-0.0112	94 (7.6)	97 (7.8)	0.880	0.2458	0.0188	-0.0075
Previous history of heart failure	19 (1.4)	23 (1.7)	0.641	0.0755	0.0970	-0.0479	13 (1.0)	17 (1.4)	0.582	0.5506	0.1497	-0.0138
Previous history of MI	99 (7.5)	112 (8.5)	0.389	0.1395	0.0739	0.0038	86 (6.9)	90 (7.3)	0.815	0.3781	0.0270	-0.0103
Previous history of CVA/TIA	67 (5.1)	62 (4.7)	0.718	-0.3032	-0.0450	-0.0307	55 (4.4)	52 (4.2)	0.843	0.1703	-0.0323	0.0162
Killip class			0.339	-0.1885	0.0562	0.0060			0.653	0.0921	0.0313	-0.0085
I	1,120 (84.8)	1,102 (83.4)					1,057 (85.3)	1,048 (84.6)				
II-IV	201 (15.2)	219 (16.6)					182 (14.7)	191 (15.4)				
Final diagnosis			0.276	0.0519	-0.0484	0.0085	618 (49.9)	606 (48.9)	0.659	-0.2232	0.0214	0.0080
Non-ST segment elevation MI	636 (48.1)	665 (50.3)										
ST segment elevation MI	685 (51.9)	656 (49.7)					621 (50.1)	633 (51.1)				
Left ventricular ejection fraction, %	83.42 ± 1.01	83.59 ± 1.02	0.905	0.0328	-0.0198	-0.0055	52.66 ± 0.29	52.39 ± 0.30	0.520	-0.0724	-0.0259	-0.0029
Creatinine clearance, mL/min/1.73 m ²	52.41 ± 0.29	52.20 ± 0.29	0.615	0.3057	0.0046	0	84.93 ± 1.00	84.71 ± 1.05	0.882	-0.0966	-0.0061	-0.0051

Supplementary Table 1. Continued

Characteristic	Unchanged clopidogrel (n = 1,321)	P2Y12RI switching (n = 1,321)	p value	Unadjusted SMD	PSM SMD	IPW SMD	Unchanged potent P2Y12RIs (n = 1,239)	P2Y12RI switching (n = 1,239)	p value	Unadjusted SMD	PSM SMD	IPW SMD
Vascular access			1.000	0.2960	0.0017	0.0343			0.228	0.1004	-0.0552	0.0068
Trans-radial approach	648 (49.1)	649 (49.1)					630 (50.8)	599 (48.3)				
Trans-femoral approach	673 (50.9)	672 (50.9)					609 (49.2)	640 (51.7)				
Infarct-related artery			0.950	0.0291	0.0200	-0.0136			0.867	0.0233	0.0249	-0.0012
Left anterior descending	617 (46.7)	628 (47.5)					575 (46.4)	585 (47.2)				
Left circumflex	218 (16.5)	208 (15.8)					211 (17.0)	199 (16.1)				
Right coronary	454 (34.4)	452 (34.2)					427 (34.5)	425 (34.3)				
Left main	32 (2.4)	33 (2.5)					26 (2.1)	30 (2.4)				
Involved vessel number			0.785	-0.0844	0.0134	0.0193			0.841	0.0120	-0.0107	-0.0079
Single vessel	684 (51.8)	676 (51.2)					637 (51.4)	643 (51.9)				
Left main or multi-vessel disease	637 (48.2)	645 (48.8)					602 (48.6)	596 (48.1)				
ACC/AHA lesion classification			0.708	0.2323	-0.0302	0.0276			0.948	-0.1059	0.0092	0.0070
Type A/B1	140 (10.6)	147 (11.1)					135 (10.9)	133 (10.7)				
Type B2/C	1,181 (89.4)	1,174 (88.9)					1,104 (89.1)	1,106 (89.3)				
Procedure for target lesion			0.936	-0.0802	-0.0255	0.0188			0.904	0.0785	-0.0196	-0.0109
Only balloon angioplasty	70 (5.3)	67 (5.1)					60 (4.8)	58 (4.7)				
Bare metal stent	36 (2.7)	34 (2.6)					30 (2.4)	27 (2.2)				
Drug-eluting stent	1,215 (92.0)	1,220 (92.3)					1,149 (92.7)	1,154 (93.1)				
Use of glycoprotein IIb/IIIa inhibitor	188 (14.2)	213 (16.1)	0.176	0.2791	0.0811	0.0320	197 (15.9)	209 (16.9)	0.551	-0.0749	0.0390	0.0083

Supplementary Table 1. Continued

Characteristic	Unchanged clopidogrel (n = 1,321)	P2Y12RI switching (n = 1,321)	p value	Unadjusted SMD	PSM SMD	IPW SMD	Unchanged potent P2Y12RIs (n = 1,239)	P2Y12RI switching (n = 1,239)	p value	Unadjusted SMD	PSM SMD	IPW SMD
In-hospital medications												
Aspirin	1,319 (99.8)	1,318 (99.8)	1.000	-0.2834	-0.2240	-0.2104	1,238 (99.9)	1,237 (99.8)	1.000	-0.9049	-0.3826	-0.1586
Clopidogrel	1,321 (100.0)	1,321 (100.0)	-	-	-	-	-	1,239 (100.0)	-	-	-	-
Ticagrelor	-	845 (82.0)	-	-	-	-	807 (65.1)	801 (64.6)	0.833	-0.2263	-0.0117	-0.0005
Prasugrel	-	476 (16.0)	-	-	-	-	432 (34.9)	438 (35.4)	0.833	0.2263	0.0117	0.0005
Cilostazol	33 (2.5)	40 (3.0)	0.410	-0.8440	0.0991	-0.0589	10 (0.8)	10 (0.8)	1.000	1.0030	0	0.0221
Beta-blocker	1,102 (83.4)	1,109 (84.0)	0.713	0.0251	0.0214	-0.0081	1,058 (85.4)	1,049 (84.7)	0.652	-0.0756	-0.0315	0.0050
Calcium channel blockers	77 (5.8)	76 (5.8)	0.934	-0.1319	-0.0077	0.0015	69 (5.6)	65 (5.2)	0.790	0.1449	-0.0348	0.0066
ACEi or ARB	1,061 (80.3)	1,056 (79.9)	0.845	-0.0192	-0.0131	-0.0190	1,001 (80.8)	996 (80.4)	0.839	-0.0092	-0.0142	0.0002
Statin	1,253 (94.9)	1,251 (94.7)	0.930	0.2174	-0.0169	0.0417	1,171 (94.5)	1,179 (95.2)	0.525	-0.0538	0.0728	0.0107
Oral anticoagulants	40 (3.0)	44 (3.3)	0.660	-0.0085	0.0543	0.0076	26 (2.1)	30 (2.4)	0.685	0.5643	0.0807	0.0074

Values are presented as mean ± standard error of mean or number (%).

IPW, inverse probability weighting; RI, receptor inhibitor; SMD, standardized mean difference; PSM, propensity score-matched; MI, myocardial infarction; CVA, cerebrovascular accident; TIA, transient ischemic attack; ACC, American College of Cardiology; AHA, American Heart Association; ACEi, angiotensin converting enzyme inhibitor; ARB, angiotensin II receptor blocker.

Supplementary Table 2. In-hospital clinical outcomes among three groups

	No. (%)		Unadjusted		Multivariate-adjusted		Propensity score-matched		IPW-adjusted	
			OR (95% CI)	p value ^a	OR (95% CI)	p value	OR (95% CI)	p value	OR (95% CI)	p value
Unchanged clopidogrel vs. P2Y12RI switching	4,674	1,399								
All-cause death	162 (3.5)	24 (1.7)	0.486 (0.315–0.750)	0.001	1.020 (0.467–2.227)	0.961	1.060 (0.544–2.065)	0.865	0.875 (0.653–1.173)	0.653
Cardiac death	138 (3.0)	16 (1.1)	0.380 (0.226–0.640)	<0.001	0.581 (0.231–1.464)	0.250	0.664 (0.297–1.484)	0.318	0.643 (0.445–0.931)	0.019
Non-fatal MI	9 (0.2)	11 (0.8)	4.108 (1.699–9.933)	0.002	4.186 (1.705–10.278)	0.002	2.511 (0.786–8.028)	0.120	3.184 (1.591–6.372)	0.001
Definite stent thrombosis	7 (0.1)	10 (0.7)	4.800 (1.824–12.633)	0.002	3.824 (1.420–10.299)	0.008	3.014 (0.814–11.157)	0.099	3.659 (1.689–7.926)	0.001
Stroke	35 (0.7)	8 (0.6)	0.762 (0.353–1.647)	0.588	0.872 (0.398–1.910)	0.731	0.888 (0.342–2.309)	0.808	0.966 (0.624–1.497)	0.879
MACEs	174 (3.7)	35 (2.5)	0.664 (0.459–0.959)	0.029	1.077 (0.660–1.759)	0.766	1.079 (0.629–1.850)	0.783	1.017 (0.787–1.315)	0.896
TIMI major bleeding	63 (1.3)	28 (2.0)	1.495 (0.954–2.342)	0.080	1.611 (0.987–2.631)	0.056	1.817 (0.962–3.431)	0.066	1.735 (1.300–2.315)	<0.001
TIMI minor bleeding	108 (2.3)	51 (3.6)	1.600 (1.140–2.244)	0.007	1.964 (1.364–2.829)	<0.001	2.082 (1.282–3.380)	0.003	1.946 (1.563–2.423)	<0.001
TIMI major or minor bleeding	151 (3.2)	66 (4.7)	1.483 (1.104–1.993)	0.011	1.813 (1.311–2.507)	<0.001	1.959 (1.284–2.988)	0.002	1.818 (1.504–2.197)	<0.001
NACEs	222 (4.7)	58 (4.1)	0.867 (0.646–1.165)	0.383	1.339 (0.923–1.941)	0.124	1.356 (0.885–2.078)	0.162	1.324 (1.085–1.615)	0.006
Unchanged potent P2Y12RIs vs. P2Y12RI switching	2,403	1,399								
All-cause death	60 (2.5)	24 (1.7)	0.682 (0.423–1.099)	0.137	0.310 (0.090–1.068)	0.064	0.579 (0.298–1.124)	0.106	0.637 (0.421–0.962)	0.032
Cardiac death	49 (2.0)	16 (1.1)	0.556 (0.315–0.981)	0.043	0.167 (0.037–0.748)	0.019	0.417 (0.182–0.957)	0.039	0.447 (0.265–0.754)	0.003
Non-fatal MI	9 (0.4)	11 (0.8)	2.108 (0.871–5.100)	0.105	2.344 (0.965–5.691)	0.060	2.512 (0.786–8.032)	0.120	2.546 (1.357–4.779)	0.004
Definite stent thrombosis	7 (0.3)	10 (0.7)	2.464 (0.936–6.488)	0.076	2.792 (1.056–7.383)	0.038	3.015 (0.814–11.162)	0.098	2.865 (1.423–5.766)	0.003
Stroke	3 (0.1)	8 (0.6)	4.601 (1.219–17.371)	0.023	4.179 (1.103–15.836)	0.035	6.024 (0.724–50.113)	0.097	3.733 (1.342–10.380)	0.012
MACEs	61 (2.5)	35 (2.5)	0.985 (0.647–1.501)	1.000	1.208 (0.672–2.171)	0.529	1.000 (0.565–1.771)	1.000	1.135 (0.808–1.594)	0.465
TIMI major bleeding	65 (2.7)	28 (2.0)	0.735 (0.469–1.150)	0.192	0.696 (0.432–1.122)	0.137	0.545 (0.318–0.934)	0.027	0.700 (0.514–0.954)	0.024
TIMI minor bleeding	92 (3.8)	51 (3.6)	0.950 (0.671–1.347)	0.860	0.920 (0.638–1.328)	0.658	0.775 (0.524–1.145)	0.200	0.950 (0.749–1.206)	0.674
TIMI major or minor bleeding	132 (5.5)	66 (4.7)	0.852 (0.629–1.153)	0.325	0.837 (0.605–1.157)	0.281	0.731 (0.515–1.037)	0.079	0.861 (0.699–1.059)	0.157
NACEs	117 (4.9)	58 (4.1)	0.845 (0.612–1.166)	0.336	0.816 (0.554–1.203)	0.305	0.732 (0.489–1.095)	0.129	0.879 (0.694–1.113)	0.284

Values are presented as number (%).

RI, receptor inhibitor; IPW, inverse probability weighting; OR, odds ratio; CI, confidence interval; MI, myocardial infarction; MACE, major adverse cardiovascular event; TIMI, thrombolysis in myocardial infarction; NACE, net adverse cardiovascular event.

^ap value < 0.0167 was considered statistically significant.