

# **Supplemental Material**

**Table S1. Angiographic data in patients with and without prior myocardial infarction\***

<b>Characteristic</b>	<b>Prior MI (n=627)</b>	<b>No prior MI (n=3,374)</b>	<b>P value</b>
<b>Access site</b>			0.045
<b>Femoral artery</b>	415 (66.2)	2,087 (61.9)	
<b>Radial artery</b>	207 (33.0)	1,272 (37.7)	
<b>Other</b>	5 (0.8)	15 (0.4)	
<b>Number of diseased coronary arteries</b>			<0.001
<b>No obstructive CAD</b>	15 (2.4)	319 (9.4)	
<b>One-vessel disease</b>	85 (13.6)	1,098 (32.5)	
<b>Two-vessel disease</b>	163 (26.0)	912 (27.0)	
<b>Three-vessel disease</b>	364 (58.1)	1,045 (31.0)	
<b>Multivessel disease</b>	527 (84.1)	1,957 (58.0)	<0.001
<b>Left ventricular ejection fraction<sup>†</sup></b>	48.8 ± 11.8	52.4 ± 11.0	<0.001

Data are shown as counts (proportion; %) or mean ± standard deviation. CAD, coronary artery disease, MI, myocardial infarction. \* Angiographic data were not available for 4 patients with prior MI and 10 patients without prior MI. <sup>†</sup>Left ventricular ejection fraction was not available in 34 patients with prior MI and 189 patients without prior MI.

**Table S2. Procedural data in patients with and without prior myocardial infarction**

<b>Characteristic</b>	<b>Prior MI (n=631)</b>	<b>No prior MI (n=3,384)</b>	<b>P value</b>
<b>Target vessel</b>			<0.001
<b>Left main coronary artery</b>	12 (2.3)	62 (2.2)	
<b>LAD coronary artery</b>	179 (34.2)	1,285 (45.0)	
<b>Left circumflex coronary artery</b>	118 (22.6)	573 (20.1)	
<b>Right coronary artery</b>	178 (34.0)	910 (31.9)	
<b>Bypass graft</b>	36 (6.9)	23 (0.8)	
<b>Complex lesion (type B2/C)</b>	332 (63.5)	1,654 (58.0)	0.021
<b>More than 1 lesion treated</b>	176 (27.9)	995 (29.4)	0.47
<b>TIMI flow grade before the intervention</b>			<0.001
<b>0</b>	148 (28.3)	1027 (36.0)	
<b>1</b>	30 (5.7)	252 (8.8)	
<b>2</b>	129 (24.7)	618 (21.7)	
<b>3</b>	216 (41.3)	957 (33.5)	
<b>TIMI flow grade after the intervention</b>			0.12
<b>0</b>	7 (1.3)	26 (0.9)	
<b>1</b>	5 (1.0)	11 (0.4)	
<b>2</b>	18 (3.4)	69 (2.4)	
<b>3</b>	493 (94.3)	2,748 (96.3)	
<b>Type of intervention</b>			
<b>Drug-eluting stent</b>	440 (84.1)	2,598 (91.0)	<0.001
<b>Bare-metal stent</b>	5 (1.0)	7 (0.3)	0.030
<b>Bioresorbable vascular scaffold</b>	19 (3.6)	176 (6.2)	0.029
<b>Drug-eluting balloon</b>	35 (6.7)	28 (1.0)	<0.001

<b>Plain balloon angioplasty</b>	42 (8.0)	61 (2.1)	<0.001
<b>Maximal stent diameter (mm)</b>	3.20 ± 0.51	3.19 ± 0.50	0.62
<b>Total stented length (mm)</b>	30.8 ± 17.9	30.5 ± 16.7	0.67
<b>Successful PCI</b>	505 (96.6)	2,795 (98.0)	0.058
<b>Periprocedural antithrombotic medication</b>			
<b>Aspirin</b>	503 (79.7)	3,005 (88.8)	<0.001
<b>Unfractionated heparin</b>	543 (86.1)	2,991 (88.4)	0.11
<b>Low molecular weight heparin</b>	25 (4.0)	152 (4.5)	0.62
<b>Bivalirudin</b>	33 (5.2)	235 (6.9)	0.13
<b>GPIIb/IIIa inhibitor</b>	52 (8.2)	366 (10.8)	0.061

Data are shown as counts (proportions; %) or mean ± standard deviation. GPIIb/IIIa, glycoprotein IIb/IIIa; LAD, left anterior descending; MI, myocardial infarction; PCI, percutaneous coronary intervention; TIMI, Thrombolysis in Myocardial Infarction.

**Table S3. Diagnosis and drug therapy at discharge in patients with and without prior myocardial infarction\***

<b>Characteristic</b>	<b>Prior MI (n=629)</b>	<b>No prior MI (n=3,378)</b>	<b>P value</b>
<b>Final diagnosis of acute coronary syndrome – no. (%)</b>	579 (92.1)	3,062 (90.6)	0.29
<b>Unstable angina</b>	105/579 (18.1)	257/3,062 (8.4)	
<b>NSTEMI</b>	293/579 (50.6)	1,368/3,062 (44.7)	
<b>STEMI</b>	181/579 (31.3)	1,437/3,062 (46.9)	
<b>Therapy at discharge – no. (%)<sup>†</sup></b>			
<b>Aspirin</b>	604/618 (97.7)	3,138/3,333 (94.1)	<0.001
<b>Ticagrelor</b>	246/618 (39.8)	1,370/3,333 (41.1)	0.58
<b>Prasugrel</b>	251/618 (40.6)	1,365/3,333 (41.0)	0.91
<b>Clopidogrel</b>	44/618 (7.1)	163/3,333 (4.9)	0.029
<b>Oral anticoagulant drugs</b>	33/618 (5.3)	149/3,333 (4.5)	0.40
<b>Beta blocking agents</b>	527/618 (85.3)	2,757/3,333 (82.7)	0.13
<b>ACE inhibitor/ARB</b>	547/618 (88.5)	2,800/3,333 (84.0)	0.005
<b>Statin</b>	582/618 (94.2)	3,057/3,333 (91.7)	0.046

Data are shown as counts (proportions; %). ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; MI, myocardial infarction; NSTEMI, non-ST-segment elevation myocardial infarction; STEMI, ST-segment elevation myocardial infarction. \* Not available for patients who withdrew consent before discharge.<sup>†</sup> Shown for patients discharged alive, not available for patients who withdrew consent.

**Table S4. Angiographic data according to assigned treatment in patients with and without prior myocardial infarction \***

Characteristic	Prior MI (n=627)			No prior MI (n=3,374)		
	Ticagrelor (n= 310)	Prasugrel (n= 317)	P value	Ticagrelor (n=1,691)	Prasugrel (n=1,683)	P value
<b>Access site</b>			0.41			0.65
<b>Femoral artery</b>	203 (65.5)	212 (66.9)		1,040 (61.5)	1,047 (62.2)	
<b>Radial artery</b>	103 (33.2)	104 (32.8)		645 (38.1)	627 (37.3)	
<b>Other</b>	4 (1.3)	1 (0.3)		6 (0.4)	9 (0.5)	
<b>Number of diseased coronary arteries</b>			0.18			0.89
<b>No obstructive CAD</b>	7 (2.3)	8 (2.5)		163 (9.6)	156 (9.3)	
<b>One-vessel disease</b>	50 (16.1)	35 (11.0)		551 (32.6)	547 (32.5)	
<b>Two-vessel disease</b>	72 (23.2)	91 (28.7)		448 (26.5)	464 (27.6)	
<b>Three-vessel disease</b>	181 (58.4)	183 (57.7)		529 (31.3)	516 (30.7)	
<b>Multivessel disease</b>	253 (81.6)	274 (86.4)	0.12	977 (57.8)	980 (58.2)	0.82
<b>Left ventricular ejection fraction<sup>†</sup></b>	48.3 ± 11.8	49.2 ± 11.8	0.33	52.2 ± 11.1	52.5 ± 11.0	0.35

Data are shown as counts (proportion; %) or mean ± standard deviation. CAD, coronary artery disease. \* Angiographic data were not available for 4 patients in the Prior MI group (1 in the ticagrelor group and 3 in the prasugrel group) and 10 patients in the No prior MI group (8 in the ticagrelor group and 2 in the prasugrel group). <sup>†</sup> Left ventricular ejection fraction was not available in 34 patients in Prior MI group (16 in the ticagrelor group and 18 in the prasugrel group) and 189 patients in the No prior MI group (93 in the ticagrelor group and 96 in the prasugrel group).

**Table S5. Procedural data according to assigned treatment in patients with and without prior myocardial infarction**

Characteristic	Prior MI (n=627)			No prior MI (n=3,374)		
	Ticagrelor (n=311)	Prasugrel (n=320)	P value	Ticagrelor (n=1,699)	Prasugrel (n=1,685)	P value
<b>Target vessel</b>			0.46			0.47
<b>Left main coronary artery</b>	3 (1.2)	9 (3.4)		33 (2.3)	29 (2.0)	
<b>LAD coronary artery</b>	91 (34.9)	88 (33.6)		655 (46.3)	630 (43.8)	
<b>Left circumflex coronary artery</b>	61 (23.4)	57 (21.8)		285 (20.2)	288 (20.0)	
<b>Right coronary artery</b>	90 (34.5)	88 (33.6)		429 (30.3)	481 (33.4)	
<b>Bypass graft</b>	16 (6.1)	20 (7.6)		12 (0.9)	11 (0.8)	
<b>Complex lesion (type B2/C)</b>	172 (65.9)	160 (61.1)	0.29	806 (57.0)	848 (58.9)	0.30
<b>More than 1 lesion treated</b>	79 (25.4)	97 (30.3)	0.19	489 (28.8)	506 (30.0)	0.45
<b>TIMI flow grade before the intervention</b>			0.38			0.44
<b>0</b>	74 (28.4)	74 (28.2)		517 (36.5)	510 (35.4)	
<b>1</b>	14 (5.4)	16 (6.1)		113 (8.0)	139 (9.7)	
<b>2</b>	57 (21.8)	72 (27.5)		304 (21.5)	314 (21.8)	
<b>3</b>	116 (44.4)	100 (38.2)		481 (34.0)	476 (33.1)	
<b>TIMI flow grade after the intervention</b>			0.74			0.29
<b>0</b>	5 (1.9)	2 (0.8)		12 (0.9)	14 (1.0)	
<b>1</b>	2 (0.8)	3 (1.2)		7 (0.5)	4 (0.3)	
<b>2</b>	9 (3.5)	9 (3.4)		41 (2.9)	28 (2.0)	
<b>3</b>	245 (93.9)	248 (94.7)		1,355 (95.8)	1,393 (96.8)	
<b>Type of intervention</b>						
<b>Drug-eluting stent</b>	217 (83.1)	223 (85.1)	0.62	1,279 (90.4)	1,319 (91.7)	0.26



<b>Bare-metal stent</b>	1 (0.4)	4 (1.5)	0.36	3 (0.2)	4 (0.3)	>0.99
<b>Bioresorbable vascular scaffold</b>	8 (3.1)	11 (4.2)	0.65	91 (6.4)	85 (5.9)	0.61
<b>Drug-eluting balloon</b>	19 (7.3)	16 (6.1)	0.72	17 (1.2)	11 (0.8)	0.32
<b>Plain balloon angioplasty</b>	24 (9.2)	18 (6.9)	0.41	33 (2.3)	28 (2.0)	0.56
<b>Maximal stent diameter (mm)</b>	3.2 ± 0.5	3.2 ± 0.5	0.92	3.2 ± 0.5	3.2 ± 0.5	0.48
<b>Total stented length (mm)</b>	32.0 ± 18.6	29.7 ± 17.2	0.16	30.5 ± 16.5	30.4 ± 17.0	0.85
<b>Successful PCI</b>	251 (96.2)	254 (96.9)	0.80	1,388 (98.2)	1,407 (97.8)	0.64
<b>Periprocedural antithrombotic medication</b>						
<b>Aspirin</b>	240 (77.2)	263 (82.2)	0.14	1,508 (88.8)	1,497 (88.8)	0.98
<b>Unfractionated heparin</b>	264 (84.9)	279 (87.2)	0.47	1,490 (87.7)	1,501 (89.1)	0.23
<b>Low molecular weight heparin</b>	13 (4.2)	12 (3.8)	0.94	87 (5.1)	65 (3.9)	0.091
<b>Bivalirudin</b>	15 (4.8)	18 (5.6)	0.78	110 (6.5)	125 (7.4)	0.31
<b>GPIIb/IIIa inhibitor</b>	26 (8.4)	26 (8.1)	>0.99	193 (11.4)	173 (10.3)	0.33

Data are shown as counts (proportions; %) or mean ± standard deviation. GPIIb/IIIa, glycoprotein IIb/IIIa; LAD, left anterior descending; PCI, percutaneous coronary intervention; TIMI, Thrombolysis in Myocardial Infarction.

**Table S6. Diagnosis and drug therapy at discharge according to prior myocardial infarction status and assigned treatment\***

Characteristic	Prior MI (n=629)			No prior MI (n=3,378)		
	Ticagrelor (n=309)	Prasugrel (n=320)	P value	Ticagrelor (n=1,695)	Prasugrel (n=1,683)	P value
<b>Final diagnosis of acute coronary syndrome – no. (%)</b>	294 (95.1)	285 (89.1)	0.008	1,535 (90.6)	1,527 (90.7)	0.91
<b>Unstable angina</b>	53/294 (18.0)	52/285 (18.2)		136/1,535 (8.9)	121/1,527 (7.9)	
<b>NSTEMI</b>	149/294 (50.7)	144/285 (50.5)		685/1,535 (44.6)	683/1,527 (44.7)	
<b>STEMI</b>	92/294 (31.3)	89/285 (31.2)		714/1,535 (46.5)	723/1,527 (47.3)	
<b>Therapy at discharge – no. (%)<sup>†</sup></b>						
<b>Aspirin</b>	294/302 (97.4)	310/316 (98.1)	0.72	1,571/1,672 (94.0)	1,567/1,661 (94.3)	0.69
<b>Ticagrelor</b>	242/302 (80.1)	4/316 (1.3)	<0.001	1,360/1,672 (81.3)	10/1,661 (0.6)	<0.001
<b>Prasugrel</b>	5/302 (1.7)	246/316 (77.8)	<0.001	16/1,672 (1.0)	1,349/1,661 (81.2)	<0.001
<b>Clopidogrel</b>	22/302 (7.3)	22/316 (7.0)	>0.99	68/1,672 (4.1)	95/1,661 (5.7)	0.033
<b>Oral anticoagulant drugs</b>	15/302 (5.0)	18/316 (5.7)	0.82	67/1,672 (4.0)	82/1,661 (4.9)	0.22
<b>Beta blocking agents</b>	259/302 (85.8)	268/316 (84.8)	0.83	1,381/1,672 (82.6)	1,376/1,661 (82.8)	0.89
<b>ACE inhibitor/ARB</b>	268/302 (88.7)	279/316 (88.3)	0.96	1,390/1,672 (83.1)	1,410/1,661 (84.9)	0.18
<b>Statins</b>	283 (93.7)	299/316 (94.6)	0.76	1,526 (91.3)	1,531/1,661 (92.2)	0.38

Data are shown as counts (proportions; %). ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; NSTEMI, non-ST-segment elevation myocardial infarction; STEMI, ST-segment elevation myocardial infarction. \* Not available for patients who withdrew consent before discharge. † Shown for patients discharged alive, not available for patients who withdrew consent before discharge.

**Table S7. Clinical outcomes according to prior myocardial infarction status in patients treated with PCI**

<b>Outcome</b>	<b>Prior MI (n=523)</b>	<b>No prior MI (n=2,852)</b>	<b>HR [95% CI]</b>	<b>P value</b>
<b>Primary endpoint (death, myocardial infarction or stroke)</b>	69 (13.4)	212 (7.5)	1.83 [1.39-2.40]	<0.001
<b>BARC type 3 to 5 bleeding*</b>	32 (6.2)	163 (5.8)	1.07 [0.73-1.57]	0.72

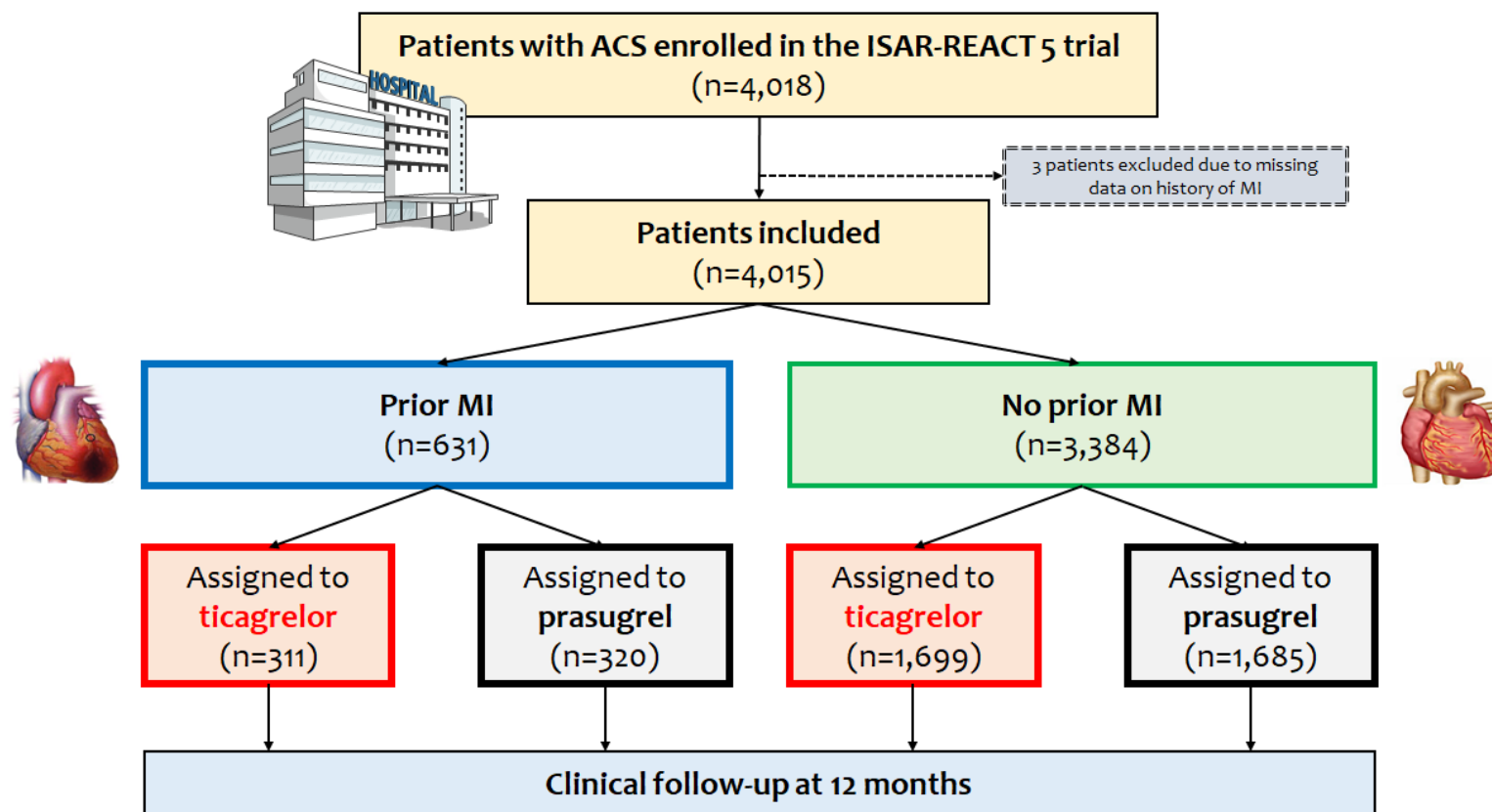
Data are numbers of events with Kaplan-Meier estimates (%) for the primary endpoint and cumulative incidence (%) after accounting for competing risk of death for the safety (bleeding) endpoint. BARC, Bleeding Academic Research Consortium; CI, confidence interval; HR, hazard ratio \*BARC type 3 to 5 bleeding was analyzed in the intention-to-treat population.

**Table S8. Clinical outcomes according to prior myocardial infarction status and assigned treatment in patients treated with PCI**

Outcome	Prior MI (n=523)			No prior MI (n=2,852)			P for interaction
	Ticagrelor (n=261)	Prasugrel (n=262)	HR [95% CI]	Ticagrelor (n=1,414)	Prasugrel (n=1,438)	HR [95% CI]	
<b>Primary endpoint – (death, myocardial infarction or stroke)</b>	42 (16.3)	27 (10.4)	1.63 [1.01-2.65]	119 (8.5)	93 (6.5)	1.31 [1.00-1.71]	0.43
<b>BARC type 3 to 5 bleeding*</b>	13/259 (5.9)	9/257 (3.7)	1.48 [0.63-3.45]	71/1412 (5.3)	69/1422 (5.2)	1.04 [0.75-1.45]	0.45

Data are numbers of events with Kaplan-Meier estimates (%) for the primary endpoint and death or cumulative incidence (%) after accounting for the competing risk of death for the safety (bleeding) endpoint. BARC, Bleeding Academic Research Consortium; CI, confidence interval; HR, hazard ratio; STEMI, ST-segment elevation myocardial infarction. \*BARC type 3 to 5 bleeding was analyzed in the modified intention-to-treat population.

**Figure S1. Study flowchart.**



ACS, acute coronary syndrome; ISAR-REACT, Intracoronary Stenting and Antithrombotic Regimen: Rapid Early Action for Coronary Treatment; MI, myocardial infarction.