

Supplemental material

Table S1: Temporal trends in treatment and outcomes throughout all the survey years

n (%)	Survey year								missing	P. trend
	2002 (n=695)	2004 (n=722)	2006 (n=678)	2008 (n=642)	2010 (n=659)	2013 (n=659)	2016 (n=657)	2018 (n=647)		
<i>All cohort</i>										
PCI	244 (35.1)	311 (43.1)	329 (48.5)	372 (57.9)	390 (59.2)	396 (60.1)	422 (64.2)	375 (58)	0	<0.001
DAPT	251 (36.1)	344 (47.6)	402 (59.3)	439 (68.4)	496 (75.3)	512 (77.7)	512 (77.9)	553 (85.5)	0	<0.001
Statins	408 (58.7)	536 (74.2)	576 (90.7)	543 (88)	604 (93.2)	600 (91.2)	577 (96.3)	589 (99.7)	3.6	<0.001
Composite intervention	129 (18.6)	233 (32.3)	273 (40.3)	316 (49.3)	350 (53.1)	357 (54.3)	347 (54.1)	334 (52.4)	0.5	<0.001
Rehabilitation referral	NA	NA	115 (19.7)	223 (37.4)	264 (43.4)	188 (40.7)	273 (49.6)	256 (53.3)	38.8	<0.001
30-day MACE	174 (25)	143 (19.8)	153 (22.6)	135 (21)	101 (15.3)	90 (13.7)	69 (10.5)	72 (11.7)	0.6	<0.001
1-year mortality	145 (20.9)	154 (21.4)	134 (19.9)	110 (17.2)	104 (15.8)	98 (15.1)	97 (15)	87 (16.1)	2.6	<0.001
<i>High-risk</i>										
n (%)	2002 (n=377)	2004 (n=361)	2006 (n=316)	2008 (n=350)	2010 (n=321)	2013 (n=335)	2016 (n=335)	2018 (n=315)	missing	P. trend
PCI	144 (38.2)	180 (49.9)	182 (57.6)	233 (66.6)	215 (67)	218 (65.1)	237 (70.7)	199 (63.2)	0	<0.001
DAPT	149 (39.5)	192 (53.2)	207 (65.5)	257 (73.4)	256 (79.8)	268 (80)	266 (79.4)	284 (90.2)	0	<0.001
Statins	227 (60.2)	280 (77.6)	275 (90.5)	295 (87.8)	304 (95.3)	312 (93.4)	298 (95.8)	296 (100)	2.7	<0.001
Composite intervention	79 (21)	136 (37.7)	154 (48.9)	199 (57)	196 (61.1)	199 (59.6)	198 (60.6)	183 (59)	0.6	<0.001
Rehabilitation referral	NA	NA	61 (21.8)	123 (37.7)	142 (46.4)	103 (43.1)	161 (55.3)	138 (57)	37.9	<0.001
30-day MACE	94 (24.9)	65 (18)	61 (19.3)	68 (19.4)	36 (11.2)	39 (11.6)	27 (8.1)	29 (9.7)	0.6	<0.001
1-year mortality	65 (17.2)	57 (15.8)	47 (15)	47 (13.5)	28 (8.8)	36 (10.9)	26 (7.9)	31 (11.9)	2.6	<0.001

Cont'd Table S1

<i>Very high-risk</i>										
n (%)	2002 (n=205)	2004 (n=224)	2006 (n=186)	2008 (n=162)	2010 (n=204)	2013 (n=199)	2016 (n=192)	2018 (n=185)	missing	P. trend
PCI	71 (34.6)	91 (40.6)	85 (45.7)	77 (47.5)	109 (53.4)	120 (60.3)	123 (64.1)	109 (58.9)	0	<0.001
DAPT	68 (33.2)	105 (46.9)	108 (58.1)	99 (61.1)	139 (68.1)	153 (76.9)	153 (79.7)	160 (86.5)	0	<0.001
Statins	122 (59.5)	161 (71.9)	158 (93.5)	136 (87.2)	182 (91.5)	180 (90.5)	169 (97.7)	163 (99.4)	4.4	<0.001
Composite intervention	31 (15.1)	67 (29.9)	69 (37.1)	67 (41.4)	99 (48.5)	106 (53.3)	99 (52.9)	97 (53.6)	0.6	<0.001
Rehabilitation referral	NA	NA	30 (19.4)	59 (38.8)	80 (43.2)	59 (42.1)	75 (47.8)	78 (58.6)	40.8	<0.001
30-day MACE	49 (23.9)	42 (18.8)	44 (23.7)	38 (23.5)	40 (19.6)	25 (12.6)	24 (12.5)	25 (14.3)	0.6	<0.001
1-year mortality	45 (22)	58 (26)	34 (18.4)	31 (19.1)	38 (18.6)	26 (13.4)	32 (16.7)	22 (14.5)	2.6	<0.001
<i>Extremely high-risk</i>										
n (%)	2002 (n=113)	2004 (n=137)	2006 (n=176)	2008 (n=130)	2010 (n=134)	2013 (n=125)	2016 (n=130)	2018 (n=147)	missing	P. trend
PCI	29 (25.7)	40 (29.2)	62 (35.2)	62 (47.7)	66 (49.3)	58 (46.4)	62 (47.7)	67 (45.6)	0	<0.001
DAPT	34 (30.1)	47 (34.3)	87 (49.4)	83 (63.8)	101 (75.4)	91 (72.8)	93 (71.5)	109 (74.1)	0	<0.001
Statins	59 (52.2)	95 (69.3)	143 (88.3)	112 (89.6)	118 (90.8)	108 (86.4)	110 (95.7)	130 (99.2)	4.9	<0.001
Composite intervention	19 (16.8)	30 (21.9)	50 (28.4)	50 (38.5)	55 (41)	52 (41.6)	50 (39.4)	54 (37)	0.4	<0.001
Rehabilitation referral	NA	NA	24 (16.2)	41 (34.5)	42 (35.9)	26 (31.3)	37 (36.3)	40 (38)	38.3	<0.001
30-day MACE	31 (27.4)	36 (26.3)	48 (27.3)	29 (22.3)	25 (18.7)	26 (20.8)	18 (13.8)	18 (12.8)	0.5	<0.001
1-year mortality	35 (31)	39 (28.5)	53 (30.3)	32 (24.8)	38 (28.4)	36 (29.3)	39 (31)	34 (27)	2.7	0.77

DAPT – dual antiplatelet therapy; MACE – major adverse cardiovascular events; PCI – percutaneous coronary intervention. Composite intervention was defined as DAPT and statins at discharge and PCI during hospitalization.

Table S2: Temporal trends in baseline characteristics, characteristics of the index ACS and in-hospital complications

n (%)	Early period (2002-2008) (n =2737)	Late period (2010-2018) (n=2622)	P value
Age, years (median [IQR])	74 [63, 80]	72 [62, 80]	0.002
Gender (male)	1831 (66.9)	1918 (73.2)	<0.001
Hypertension	2398 (87.6)	2479 (94.5)	<0.001
Diabetes mellitus	1644 (60.1)	1865 (71.1)	<0.001
Dyslipidemia	1860 (68.1)	2248 (85.8)	<0.001
Current smoker	829 (30.3)	989 (37.7)	<0.001
PVD	610 (22.3)	459 (17.5)	<0.001
CKD	724 (26.5)	705 (26.9)	0.78
Family history of CAD	394 (14.9)	527 (24.7)	<0.001
Prior MI	1218 (44.5)	1332 (51)	<0.001
Prior CABG	634 (23.2)	547 (20.9)	<0.001
Prior PCI	931 (34)	1254 (48)	<0.001
Prior CHF	559 (20.4)	506 (19.3)	0.318
Prior Stroke	555 (20.3)	505 (19.3)	0.37
Characteristics of index ACS			
Admission Killip class III	349 (12.8)	175 (6.9)	<0.001
Admission Killip class IV	55 (2)	60 (2.4)	
Severe EF (<30%)	377 (17.4)	224 (11.3)	<0.001
In-hospital complications			
CHF mild-moderate (Killip-2)	414 (15.2)	281 (10.7)	<0.001
Pulmonary edema (Killip-3)	427 (15.6)	216 (8.3)	<0.001
Re-MI	62 (2.3)	25 (1)	<0.001
Stent thrombosis	17 (1.3)	11 (0.4)	0.004
New atrial fibrillation	277 (10.1)	168 (6.4)	<0.001
Acute renal failure	388 (14.2)	288 (11)	0.001
Bleeding	41 (1.5)	80 (3.1)	<0.001

CABG – coronary artery bypass graft; CAD – coronary artery disease; CHF – congestive heart failure; CKD – chronic kidney disease; EF – ejection fraction; IQR – interquartile range. MI – myocardial infarction; PCI – percutaneous coronary intervention; PVD – peripheral vascular disease; Re-MI – recurrent MI.

Table S3: Multivariate analysis for the predictors of 30-day MACE and 1-year mortality in the early time period

		Very high-Risk	Extremely high-Risk
30-day MACE	Model 1*	OR 1.34 95% CI 0.9-1.37 P=0.34	OR 1.35 95% CI 1.07-1.7 P=0.01
	Model 2‡	OR 1.14 95% CI 0.9-1.45 P=0.29	OR 1.61 95% CI 1.15-2.26 P=0.01
1-year mortality	Model 1*	HR 1.44 95% CI 1.18-1.76 P<0.001	HR 1.97 95% CI 1.61-2.42 P<0.001
	Model 2#	HR 1.27 95% CI 0.99-1.62 P=0.06	HR 1.88 95% CI 1.35-2.62 P=0.00031

The OR and HR are in comparison to high-risk patients.

*Adjusted to TRS2°P level only.

‡Adjusted to TRS2°P, age, gender, dyslipidemia, diabetes mellitus, hypertension, smoking status, history of congestive heart failure, chronic renal failure, family history of coronary artery disease, prior coronary artery bypass graft surgery, prior percutaneous coronary intervention.

#Adjusted to the above variables plus body mass index.

Table S4: Percentage of missing data for each variable

Variable	Missing data (%)	Variable	Missing data (%)
<i>Baseline characteristics</i>		<i>In-hospital complications</i>	
Age	0	Killip class	0.3
Gender	0	Severe EF (<30%)	25
Higher education	66.8	Post MI angina/re-ischemia	0.1
Hypertension	0	Stent thrombosis	26.7
Diabetes mellitus	0	MR moderate-severe	0.3
Dyslipidemia	0.1	New atrial fibrillation	0.3
Current smoker	0	Asystole	0.1
PVD	0	Stroke	0.1
CKD	0.1	Acute renal failure	0.5
Family history of CAD	10.8	Bleeding	0.2
Prior MI	0.2	Blood transfusions	62.4
Prior CABG	0	<i>Interventional and pharmacological therapy</i>	
Prior PCI	0.2	PCI	0
Prior CHF	0	PCI in NSTEMI patients	17.7
Prior stroke	0	Time from symptom onset to PPCI	86
<i>Prior medications</i>		Total angiographies	13
Aspirin	2.6	Aspirin	3
Clopidogrel	4.2	P2Y12 inhibitors during hosp/discharge	0.7
Statins	5.8	Discharge anticoagulation	7.4
ACEi	31	DAPT (in PCI patients)	26.9
ARB's	33.4	Statins	3.6
Beta blockers	4	Composite intervention	0.5
Nitrates	8.9	ACEi/ARB's	4.9
		Beta blockers	4.3
<i>Characteristics of the index ACS</i>		Cardiac rehabilitation referral at FUP	38.3
Grace score >140	32.6	<i>Clinical outcomes</i>	
Peak Troponin I	51.5	30-day re-hospitalization	13.6
Peak Troponin T	55.2	30-day angina	47.6
Admission Killip class	1.9	30-day MACE	0.6
HR (BPM)	1.4	30-day Mortality	0.8
SBP (mmHg)	1.3	30-day UAP/MI	0
DBP (mmHg)	1.7	30-day CVA	0.1
NSR	0	30-day stent thrombosis	51.2
AF/ SVT	12.7	30-day urgent revascularization	0
EF class	22.4	1-year mortality	2.6

ACEi – angiotensin converting enzyme inhibitors; AF/SVT – atrial fibrillation/supraventricular tachycardia; ARB's – angiotensin receptor blockers; CABG – coronary artery bypass graft; CAD – coronary artery disease; CHF – congestive heart failure; CKD – chronic kidney disease; CVA – cerebrovascular accident; DAPT – dual antiplatelet therapy; DBP – diastolic blood pressure; EF – ejection fraction; FUP – follow up; HR – heart rate; MACE – major adverse cardiovascular events; MI – myocardial infarction; MR – mitral regurgitation; NSR – normal sinus rhythm; NSTEMI – non-ST elevation myocardial infarction; PCI – percutaneous coronary intervention; PPCI – primary percutaneous coronary intervention; PVD – peripheral vascular disease; SBP – systolic blood pressure; UAP – unstable angina pectoris.

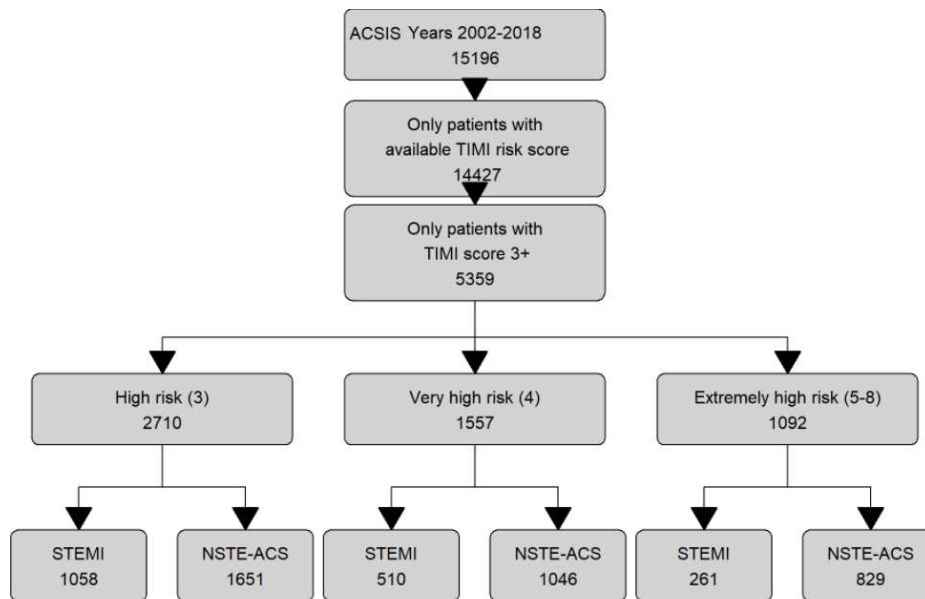
Figure S1: Study flow chart

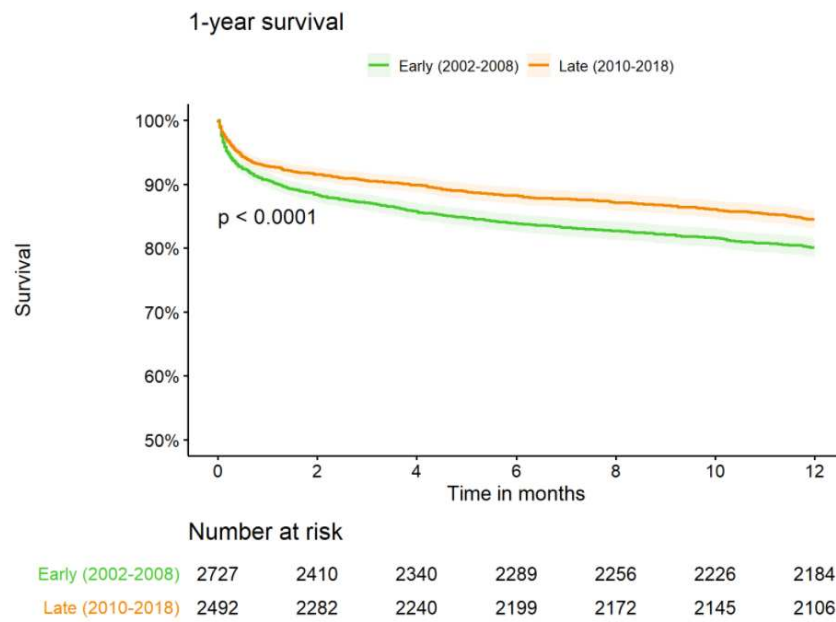
Figure S2: Kaplan-Meier curves for 1-year survival by time periods

Figure S3: Cox proportional hazard model for 1-year mortality within each risk level