



Supplementary material

Association Between Clinical Pathways Leading to Medical Management and Prognosis in Patients  
With Non-ST-Segment Elevation Acute Coronary Syndrome

**Table 1 of the Supplementary Material.** Factors Associated With Coronary Angiography During Index Hospitalization in NSTEMACS Patients in EPICOR. Model Adjusted for Hospital Type (Regional, non-University General, University General, Private) and Geographical Region, Using a Multi-level Model-adjustment For Clustering

Variable	Univariate analysis			Multivariable analysis <sup>a</sup>	
	No angiography	Angiography	<i>P</i>	Odds ratio (95%CI)	<i>P</i>
<i>Type of hospital</i>					
Regional hospital	267 (22.5)	1022 (23.2)		1.58 (0.68-3.64)	
Nonuniversity general	379 (32.0)	1202 (27.3)		0.55 (0.25-1.18)	
University general	446 (37.6)	1719 (39.0)		1.00 (reference)	

Private	94 (7.9)	462 (10.5)		2.69 (0.80-9.04)	
<i>Geographical region</i>					
Eastern Europe	298 (25.1)	919 (20.9)		0.15 (0.06-0.35)	
Latin America	392 (33.1)	602 (13.7)		0.04 (0.02-0.11)	
Western Europe (North)	311 (26.2)	1860 (42.2)		1.00 (reference)	
Western Europe (South)	185 (15.6)	1024 (23.2)		1.08 (0.47-2.47)	
<i>Patient characteristics<sup>b</sup></i>					
NSTEMI	725 (61.1)	3248 (73.7)	<.0001	1.57 (1.14-2.15)	.0051
Age > 75 y	346 (29.2)	766 (17.4)	<.0001	0.38 (0.28-0.53)	<.0001
Male	750 (63.2)	3226 (73.2)	<.0001		
Hypertension	874 (74.3)	2813 (64.7)	<.0001		
Hypercholesterolemia	617 (55.0)	2327 (54.7)	.8514		
Diabetes mellitus	412 (35.2)	1093 (25.1)	<.0001		
Current smoking	451 (41.2)	1396 (34.0)	<.0001	0.67 (0.51-0.88)	.0037
Glucose > 160 mg/dL	294 (26.8)	729 (19.4)	<.0001		

Serum creatinine > 1.2 mg/dL	534 (46.9)	2060 (49.6)	.1024		
Hemoglobin < 13 mg/dL	401 (35.5)	923 (22.6)	<.0001	0.65 (0.48-0.87)	.0034
Prior CVD	695 (58.8)	1965 (45.0)	<.0001		
Prior MI	428 (36.5)	1030 (23.7)	<.0001	0.56 (0.39-0.78)	.0009
Prior PCI	195 (16.7)	967 (22.3)	<.0001	1.58 (1.07-2.32)	.0209
Prior CABG	130 (11.0)	401 (9.2)	.0568	0.60 (0.38-0.94)	.0249
Heart failure	188 (16.1)	229 (5.3)	<.0001	0.30 (0.19-0.49)	<.0001
Atrial fibrillation	117 (10.0)	251 (5.8)	<.0001		
TIA/stroke	98 (8.3)	267 (6.1)	.007		
PVD	92 (8.0)	291 (6.7)	.1262		
Aspirin	571 (48.2)	1884 (42.8)	.0009		
Clopidogrel	211 (17.8)	621 (14.1)	.0015		
Anticoagulants	84 (7.1)	183 (4.2)	<.0001		
ACE inhibitors/ARBs	645 (54.5)	1861 (42.4)	<.0001	0.70 (0.53-0.92)	.0096
Beta-blocker	533 (45.0)	1670 (38.0)	<.0001		

Statins	473 (40.2)	1747 (39.7)	.8018		
<i>Presence of catheterization laboratory in hospital</i>	538 (45.4)	3715 (84.3)	<.0001	46.76 (22.40-97.58)	<0.0001
<i>Terms relating hospital level clustering</i>					
Standard deviation of random effect term				2.56	<0.0001

ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CABG, coronary artery bypass graft; 95%CI, 95% confidence interval; CV, cardiovascular; CVD, cardiovascular disease; MI, myocardial infarction; NSTEMI, non-ST-segment elevation acute coronary syndrome; NSTEMI, non-ST-segment elevation myocardial infarction; PAD, peripheral arterial disease; PCI, percutaneous coronary intervention; TIA, transient ischemic attack.

<sup>a</sup>Terms were selected using stepwise variable selection, except hospital type and geographical region, which were forced into the multivariable model

<sup>b</sup>Medications are chronic CV medications (ie, patients were taking these before index event).

**Table 2 of the Supplementary Material.** Factors Associated With Coronary Revascularization During Index Hospitalization in NSTEMI Patients Who Received Coronary Angiography and Had Significant Coronary Artery Disease. Model Adjusted for Hospital Type (Regional, non-University General, University General, Private) and Geographical Region, Using A Multi-Level Model-Adjustment for Clustering

Variable	Univariate analysis			Multivariable analysis <sup>a</sup>	
	No angiography	Angiography	<i>P</i>	Odds ratio (95%CI)	<i>P</i>
<i>Type of hospital</i>					
Regional hospital	150 (22.4)	776 (23.6)		1.10 (0.74-1.63)	
Non-university general	181 (27.1)	900 (27.4)		1.06 (0.73-1.54)	
University general	256 (38.3)	1281 (39.0)		1.00 (reference)	
Private	82 (12.3)	328 (10.0)		2.19 (1.14-4.20)	
<i>Geographical region</i>					
Eastern Europe	186 (27.8)	649 (19.8)		0.50 (0.33-0.77)	
Latin America	137 (20.5)	386 (11.8)		0.29 (0.18-0.48)	
Western Europe (North)	236 (35.3)	1420 (43.2)		1.00 (reference)	

Western Europe (South)	110 (16.4)	830 (25.3)		1.10 (0.73-1.66)	
<i>Patient characteristics<sup>b</sup></i>					
NSTEMI	454 (67.9)	2491 (75.8)	<.0001		
Age > 75 y	139 (20.8)	559 (17.0)	.0201	0.73 (0.55-0.98)	.0348
Male sex	484 (72.3)	2513 (76.5)	.0223	1.34 (1.04-1.72)	.0217
Hypertension	466 (70.4)	2084 (64.3)	.0026		
Hypercholesterolemia	399 (61.8)	1716 (54.2)	.0004		
Diabetes mellitus	213 (32.1)	800 (24.7)	.0001		
Current smoking	221 (35.6)	996 (32.5)	.1338		
Glucose > 160 mg/dL	136 (23.4)	548 (19.4)	.028		
Serum creatinine > 1.2 mg/dL	319 (50.4)	1523 (49.1)	.5567	0.76 (0.58-0.99)	.0443
Hemoglobin < 13 mg/dL	174 (28.3)	656 (21.4)	.0002		
Prior CVD	399 (60.4)	1372 (42.1)	<.0001	0.53 (0.42-0.67)	<.0001
Prior MI	213 (32.6)	730 (22.5)	<.0001		
Prior PCI	165 (25.2)	710 (21.9)	.0645		

Prior CABG	120 (18.2)	267 (8.2)	<.0001	0.45 (0.32-0.63)	<.0001
Heart failure	46 (7.0)	158 (4.9)	.027		
Atrial fibrillation	54 (8.2)	158 (4.9)	.0006		
TIA/stroke	48 (7.3)	197 (6.1)	.2363		
PVD	62 (9.5)	212 (6.6)	.0087		
Aspirin	365 (54.6)	1347 (41.0)	<.0001		
Clopidogrel	112 (16.8)	435 (13.3)	.0167		
Anticoagulants	34 (5.1)	122 (3.7)	.0975		
ACE inhibitors/ARBs	316 (47.4)	1358 (41.5)	.0048		
Beta-blocker	303 (45.3)	1208 (36.9)	<.0001		
Statins	301 (45.0)	1272 (38.8)	.0029		
<i>Presence of catheterization laboratory in hospital</i>	<i>579 (86.5)</i>	<i>2775 (84.5)</i>	<i>.1733</i>		
<i>Terms relating-hospital level clustering</i>					
Standard deviation of random effect term				0.83	<.0001

ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CABG, coronary artery bypass graft; 95%CI, 95% confidence interval; CV, cardiovascular; CVD, cardiovascular disease; MI, myocardial infarction; NSTEACS, non–ST-segment elevation acute coronary syndrome; NSTEMI, non–ST-segment elevation myocardial infarction; PAD, peripheral arterial disease; PCI, percutaneous coronary intervention; TIA, transient ischemic attack.

<sup>a</sup>Terms selected using stepwise variable selection, except hospital type and geographical region, which were forced into the multivariable model.

<sup>b</sup>Medications are chronic CV medications (ie, patients were taking these before index event).



**Table 3 of the Supplementary Material.** Hazard Ratios for All-cause Death for Subgroups of Medically Managed vs Revascularized NSTEMI Patients by Management Strategy

Treatment	Model 1	Model 2	Model 3
<b>Medical management</b>			
<i>Coronary revascularization</i>	1.00 (reference)	1.00 (reference)	1.00 (reference)
CAG-	3.30 (2.54-4.27)	2.52 (1.94-3.27)	1.81 (1.23-2.65)
CAG+ CAD+	2.12 (1.54-2.92)	1.88 (1.36-2.58)	1.90 (1.23-2.95)
CAG+ CAD-	0.86 (0.50-1.47)	0.96 (0.56-1.64)	0.68 (0.21-2.21)
<i>Type of hospital</i>			
University general	1.00 (reference)	1.00 (reference)	1.00 (reference)
Non-university general	1.08 (0.81-1.44)	1.06 (0.80-1.41)	1.01 (0.69-1.48)
Private	0.89 (0.58-1.36)	0.77 (0.50-1.19)	0.48 (0.23-0.98)
Regional hospital	0.95 (0.69-1.31)	0.89 (0.65-1.23)	0.95 (0.62-1.46)
<i>Geographical region</i>			
Western Europe (North)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Western Europe (South)	1.43 (1.03-1.99)	1.31 (0.94-1.83)	1.82 (1.07-3.11)
Eastern Europe	1.33 (0.96-1.85)	1.86 (1.33-2.58)	2.09 (1.24-3.53)
Latin America	1.51 (1.06-2.15)	1.94 (1.36-2.76)	3.55 (1.98-6.37)
<i>EPICOR predictors of mortality</i>			
Age (per 10 y)	-	1.95 (1.75-2.17)	1.53 (1.30-1.80)
Male sex	-	0.73 (0.58-0.93)	0.72 (0.50-1.03)
LVEF (per 10% higher)	-	-	0.97 (0.96-0.98)
EQ5D (per unit higher)	-	-	1.13 (1.04-1.22)
Serum creatinine (< 1.2 mg/dL)	-	-	1.18 (0.84-1.66)

Glucose > 160 mg/dL	-	-	1.39 (1.00-1.93)
Chronic obstructive pulmonary disease	-	-	0.95 (0.57-1.59)
Hemoglobin < 13 g/dL	-	-	1.91 (1.36-2.67)
Peripheral vascular disease	-	-	0.96 (0.59-1.56)
On diuretics at discharge	-	-	1.56 (1.10-2.21)
<i>Terms relating-hospital level clustering of events</i>			
Estimated gamma frailty term	0.16	0.15	0.07
<i>P</i> -value for shared frailty	.023	.027	.30

CAD, coronary artery disease; CAG, coronary angiography; LVEF, left ventricular ejection fraction; NSTEMI, non-ST-segment elevated acute coronary syndrome.