



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 NSTEACS 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 ^a	
	No angiography	Angiography	P	Odds ratio (95%CI)	P
<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^b</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; 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.

^aTerms were selected using stepwise variable selection, except hospital type and geographical region, which were forced into the multivariable model

^bMedications 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 NSTEACS 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 ^a	
	No angiography	Angiography	P	Odds ratio (95%CI)	P
<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^b</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>	579 (86.5)	2775 (84.5)	.1733		
<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.

^aTerms selected using stepwise variable selection, except hospital type and geographical region, which were forced into the multivariable model.

^bMedications 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 NSTEACS Patients by Management Strategy

Treatment	Model 1	Model 2	Model 3
Medical management			
<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
P-value for shared frailty	.023	.027	.30

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