

Supplementary Table 1 Multi-level multivariate analysis of factors associated with in-hospital mortality in 58 hospitals treating NSTEMI patients in six European countries

Multilevel model	Multivariable adjustment		
Fixed-effect parameters	OR	95% CI	P-value
Baseline characteristics			
Age vs. < 50 years			
- 51-70	0.96	0.45-2.01	0.904
- 71-80	2.46	1.19-5.08	0.015
- 81-101	3.8	1.76-7.66	0.001
Gender F vs. M	0.99	0.77-1.27	0.930
Diabetes	1.22	0.95-1.57	0.114
Hypertension			
- yes	1.26	0.83-1.91	0.269
- not available	2.16	1.36-3.42	0.001
Obesity (BMI > 30 kg/m ²)	0.61	0.43-0.86	0.005
Current smoking	0.79	0.52-1.21	0.285
History of CABG	0.83	0.53-1.31	0.426
History of CHD	0.86	0.66-1.11	0.229
Clinical presentation			
Heart failure symptoms on admission			
- acute pulmonary oedema	1.87	1.32-2.65	<0.001
- cardiogenic shock	9.42	5.48-16.19	<0.001
Troponin elevation			
- yes	4.38	2.51-7.63	<0.001
- not available	14.17	7.23-27.78	<0.001
LVEF			
- 35<LVEF≤55%	1.46	0.91-2.34	0.115
- LVEF≤ 35%	6.57	4.26-10.13	<0.001
- not available	5.56	3.78-8.19	<0.001
Management strategy			

PCI performed	0.34	0.24-0.47	<0.001
University hospital	1.24	0.89-1.72	0.210
Coronary care unit	1.46	0.57-3.74	0.429
Socioeconomic characteristics			
GNP per capita in PPS	0.99	0.93-1.06	0.823
Gini coefficient (for a 0.001 increase)	0.99	0.97-1.02	0.602
Random effect parameters[†]			
	variance	95% CI	P value*
Hospital	0.15	0.07-0.34	<0.001
Country	0.12	0.03-0.72	0.006

*Computed from log likelihood ratio-test.

[†]Results can also be presented as an odds ratio (OR) for death risk, comparing a hospital (or a country) at the 75th percentile of the hospital/country distribution to a hospital (or a country) at the 25th percentile of the hospital/country distribution: OR_{hospital (75th vs 25th percentile)} = 1.69 (95% CI: 1.43-2.19); OR_{country (75th vs 25th percentile)} = 1.60 (95% CI: 1.26-3.14);

CI, confidence interval; BMI, body mass index; CHD, coronary heart disease; CABG, coronary arterial bypass graft surgery; STEMI, ST-elevation myocardial infarction; NSTEMI, non ST-elevation myocardial infarction; LVEF, left ventricular ejection function.

Supplementary Table 2 Multi-level multivariate analysis of factors associated with in-hospital mortality in 58 hospitals treating STEMI patients in six European countries

Multilevel model	Multivariable adjustment		
Fixed-effect parameters	OR	95% CI	P-value
Baseline characteristics			
Age vs. < 50 years			
- 51-70	1.21	0.68-2.13	0.513
- 71-80	2.48	1.36-4.51	0.003
- 81-101	4.46	2.40-8.29	<0.001
Gender F vs. M	1.23	0.91-1.68	0.179
Diabetes	1.50	1.09-2.06	<0.001
Hypertension			
- yes	1.16	0.77-1.75	0.475
- not available	2.80	1.76-4.47	<0.001
Obesity (BMI > 30 kg/m ²)	0.93	0.65-1.34	0.694
Current smoking	0.60	0.39-0.90	0.014
History of CABG	0.55	0.24-1.28	0.166
History of CHD	1.12	0.80-1.57	0.517
Clinical presentation			
Heart failure symptoms on admission			
- acute pulmonary oedema	2.76	1.62-4.72	<0.001
- cardiogenic shock	15.48	9.88-24.26	<0.001
Troponin elevation			
- yes	1.20	0.49-2.97	0.687
- not available	3.78	1.41-10.10	0.008
LVEF			
- 35<LVEF≤55%	1.98	1.20-30.28	0.008
- LVEF≤ 35%	8.14	4.89-13.54	<0.001
- not available	8.33	5.12-13.57	<0.001
Management strategy			
PCI performed	0.39	0.28-0.54	<0.001
University hospital	1.51	0.92-2.47	0.103

Coronary care unit	0.51	0.14-1.94	0.327
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Socioeconomic characteristics

GNP per capita in PPS	1.01	0.91-1.11	0.901
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Gini coefficient (for a 0.001 increase)	0.99	0.96-1.04	0.8
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Random effect parameters[†]	variance	95% CI	P value*
Hospital	0.33	0.20-0.86	<0.001
Country	0.41	0.07-1.52	<0.001

*Computed from log likelihood ratio-test.

[†]Results can also be presented as an odds ratio (OR) for death risk, comparing a hospital (or a country) at the 75th percentile of the hospital/country distribution to a hospital (or a country) at the 25th percentile of the hospital/country distribution: OR_{hospital (75th vs 25th percentile)} = 2.17 (95% CI: 1.83-3.49);

OR_{country (75th vs 25th percentile)} = 2.37 (95% CI: 1.43-5.27);

CI, confidence interval; BMI, body mass index; CHD, coronary heart disease; CABG, coronary arterial bypass graft surgery; STEMI, ST-elevation myocardial infarction; NSTEMI, non ST-elevation myocardial infarction; LVEF, left ventricular ejection function.

Supplementary Table 3 Multi-level multivariate analysis of factors associated with in-hospital mortality in 58 hospitals treating acute coronary syndrome patients in six European countries

Multilevel model	Multivariable adjustment		
Fixed-effect parameters	OR	95% CI	P-value
Baseline characteristics			
Age vs. < 50 years			
- 51-70	1.14	0.73-1.78	0.561
- 71-80	2.60	1.65-4.08	< 0.001
- 81-101	4.21	2.65-6.68	< 0.001
Gender F vs. M	1.07	0.89-1.30	0.460
Diabetes	1.32	1.08-1.61	0.005
Hypertension			
- yes	1.19	0.90-1.59	0.224
- not available	2.31	1.68-3.18	< 0.001
Obesity (BMI > 30 kg/m ²)	0.74	0.58-0.94	0.016
Current smoking	0.69	0.52-0.93	0.014
History of CABG	0.79	0.53-1.16	0.230
History of CHD	0.92	0.75-1.12	0.411
Clinical presentation			
STEMI vs. NSTEMI	2.77	2.26-3.39	< 0.001
Heart failure symptoms on admission			
- acute pulmonary oedema	2.12	1.59-2.82	< 0.001
- cardiogenic shock	12.28	8.79-17.16	< 0.001
Troponin elevation			
- yes	3.38	2.14-5.32	< 0.001
- not available	10.8	6.37-18.33	< 0.001
LVEF			
- 35<LVEF≤55%	1.70	1.21-2.38	0.002
- LVEF≤ 35%	7.29	5.26-10.10	< 0.001
- not available	6.53	4.83-8.83	< 0.001
Management strategy			
PCI performed	0.35	0.28-0.44	< 0.001
University hospital	1.27	0.95-1.71	0.112
Coronary care unit	1.01	0.47-2.12	0.999
Country			
Finland vs. France	0.92	0.56-1.52	0.749
Germany vs. France	1.66	1.00-2.73	0.048
Greece vs. France	0.25	0.13-0.48	<0.001
Portugal vs. France	1.13	0.70-1.84	0.615
Spain vs. France	0.45	0.26-0.78	0.004
Random effect parameters[†]			
Hospital	variance	95% CI	P value*
	0.13	0.06-0.28	< 0.001

*Computed from log likelihood ratio-test.

†Results can also be presented as an odds ratio (OR) for death risk, comparing a hospital at the 75th percentile of the hospital distribution to a hospital at the 25th percentile of the hospital distribution: OR_{hospital (75th vs 25th percentile)} = 1.63 (95% CI: 1.39-2.04).

CI, confidence interval; BMI, body mass index; CHD, coronary heart disease; CABG, coronary arterial bypass graft surgery; STEMI, ST-elevation myocardial infarction; NSTEMI, non ST-elevation myocardial infarction; LVEF, left ventricular ejection function.