# SUPPLEMENTARY MATERIALS

## PRE- AND IN-HOSPITAL USE OF HEALTHCARE RESOURCES IN PATIENTS SURVIVING ACUTE CORONARY SYNDROMES: AN ANALYSIS OF THE EPICOR REGISTRY

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**Table S1** Pre-hospital antithrombotic medication in STEMI and NSTE-ACS patients with or without a history of CVD. Values are n (%) unless otherwise indicated

| Resource Use Item | STEMI | | | | NSTE-ACS | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | History of CVD (n=1042) | No History of CVD (n=3857) | All (n=4899) | p Value for CVD vs No CVD | History of CVD (n=2672) | No History of CVD (n=2904) | All (n=5576) | p Value for CVD vs No CVD | Overall p Value for STEMI vs NSTE-ACS |
| Any antiplatelet agent | 256 (24.6) | 1026 (26.6) | 1282 (26.2) | 0.19 | 358 (13.4) | 465 (16.0) | 823 (14.8) | 0.01 | <0.0001 |
| Aspirin | 245 (23.5) | 1011 (26.3) | 1256 (25.6) | 0.08 | 341 (12.8) | 458 (15.8) | 799 (14.3) | <0.01 | <0.0001 |
| Clopidogrel | 123 (11.8) | 508 (13.2) | 631 (12.9) | 0.24 | 89 (3.3) | 105 (3.6) | 194 (3.5) | 0.56 | <0.0001 |
| Prasugrel | 5 (0.5) | 34 (0.9) | 39 (0.8) | 0.20 | 2 (0.1) | 5 (0.2) | 7 (0.1) | 0.31 | <0.0001 |
| Ticlopidine | 0 | 1 (0.0) | 1 (0.0) | … | 0 | 0 | 0 | … | … |
| Any GPIIb/IIIa inhibitor | 4 (0.4) | 23 (0.6) | 27 (0.6) | 0.41 | 1 (0.0) | 3 (0.1) | 4 (0.1) | 0.36 | <0.0001 |
| Any anticoagulant | 131 (12.6) | 571 (14.8) | 702 (14.3) | 0.07 | 113 (4.2) | 139 (4.8) | 252 (4.5) | 0.32 | <0.0001 |
| UFH | 93 (8.9) | 415 (10.8) | 508 (10.4) | 0.09 | 70 (2.6) | 72 (2.5) | 142 (2.5) | 0.74 | <0.0001 |
| LMWH | 33 (3.2) | 156 (4.0) | 189 (3.9) | 0.19 | 36 (1.3) | 56 (1.9) | 92 (1.6) | 0.09 | <0.0001 |
| Warfarin/acenocoumarol | 5 (0.5) | 0 | 5 (0.1) | … | 7 (0.3) | 1 (0.0) | 8 (0.1) | 0.03 | 0.55 |
| Fondaparinux | 2 (0.2) | 4 (0.1) | 6 (0.1) | 0.47 | 1 (0.0) | 13 (0.4) | 14 (0.3) | <0.01 | 0.13 |
| Dabigatran | 0 | 0 | 0 | … | 1 (0.0) | 0 | 1 (0.0) | … | … |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Bivalirudin | 0 | 1 (0.0) | 1 (0.0) | … | 0 | 0 | 0 | … | … |

CVD, cardiovascular disease; LMWH, low-molecular-weight heparin; NSTE-ACS, non-ST-elevation myocardial infarction; SD, standard deviation; STEMI, ST-elevation

myocardial infarction; UFH, unfractionated heparin.

**Table S2** In-hospital CV medication in STEMI and NSTE-ACS patients with or without a history of CVD.[*] Values are n (%) unless otherwise indicated

| | STEMI | | | | NSTE-ACS | | | | Overall p Value for STEMI vs NSTE-ACS |
|---|---|---|---|---|---|---|---|---|---|
| Resource Use Item | History of CVD (n=1042) | No History of CVD (n=3857) | All (n=4899) | p Value | History of CVD (n=2672) | No History of CVD (n=2904) | All (n=5576) | p Value | |
| At least one fibrinolytic | 151 (14.5) | 610 (15.8) | 761 (15.5) | 0.30 | 7 (0.3) | 17 (0.6) | 24 (0.4) | 0.07 | <0.0001 |
| TNK t-PA | 69 (6.6) | 257 (6.7) | 326 (6.7) | 0.96 | 4 (0.1) | 5 (0.2) | 9 (0.2) | 0.83 | <0.0001 |
| t-PA | 24 (2.3) | 102 (2.6) | 126 (2.6) | 0.54 | 0 | 0 | 0 | … | … |
| r-PA | 20 (1.9) | 64 (1.7) | 84 (1.7) | 0.57 | 1 (0.0) | 2 (0.1) | 3 (0.1) | 0.61 | <0.0001 |
| Streptokinase | 29 (2.8) | 145 (3.8) | 174 (3.6) | 0.13 | 1 (0.0) | 4 (0.1) | 5 (0.1) | 0.22 | <0.0001 |
| Other | 9 (0.9) | 42 (1.1) | 51 (1.0) | 0.53 | 1 (0.0) | 6 (0.2) | 7 (0.1) | 0.08 | <0.0001 |
| At least one antiplatelet agent | 1041 (99.9) | 3857 (100) | 4898 (100) | 0.05 | 2656 (99.4) | 2895 (99.7) | 5551 (99.6) | 0.11 | <0.0001 |
| Aspirin | 995 (95.5) | 3781 (98.0) | 4776 (97.5) | <0.0001 | 2490 (93.2) | 2811 (96.8) | 5301 (95.1) | <0.0001 | <0.0001 |
| Clopidogrel | 940 (90.2) | 3391 (87.9) | 4331 (88.4) | 0.04 | 2343 (87.7) | 2616 (90.1) | 4959 (88.9) | <0.01 | 0.39 |
| Prasugrel | 80 (7.7) | 472 (12.2) | 552 (11.3) | <0.0001 | 97 (3.6) | 162 (5.6) | 259 (4.6) | <0.001 | <0.0001 |
| Any GPIIb/IIIa inhibitor | 247 (23.7) | 982 (25.5) | 1229 (77.2) | 0.25 | 195 (7.3) | 321 (11.1) | 516 (9.3) | <0.0001 | <0.0001 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| At least one anticoagulant | 800 (76.8) | 2983 (77.3) | 3783 (77.2) | 0.70 | 2067 (77.4) | 2309 (79.5) | 4376 (78.5) | 0.05 | 0.12 |
| UFH | 407 (39.1) | 1641 (42.5) | 2048 (41.8) | 0.04 | 725 (27.1) | 904 (31.1) | 1629 (29.2) | <0.01 | <0.0001 |
| LMWH | 468 (44.9) | 1712 (44.4) | 2180 (44.5) | 0.76 | 1295 (48.5) | 1465 (50.4) | 2760 (49.5) | 0.14 | <0.0001 |
| Warfarin/acenocoumarol | 70 (6.7) | 82 (2.1) | 152 (3.1) | <0.0001 | 224 (8.4) | 49 (1.7) | 273 (4.9) | <0.0001 | <0.0001 |
| Fondaparinux | 76 (7.3) | 298 (7.7) | 374 (7.6) | 0.64 | 305 (11.4) | 419 (14.4) | 724 (13.0) | <0.001 | <0.0001 |
| Bivalirudin | 23 (2.2) | 99 (2.6) | 122 (2.5) | 0.51 | 14 (0.5) | 29 (1.0) | 43 (0.8) | 0.04 | <0.0001 |

*Includes resource use in all hospitals, if patients were transferred. Data provided for in-hospital cardiovascular medication administered to ≥1% of patients with STEMI or NSTE-ACS.

CVD, cardiovascular disease; GP, glycoprotein; LMWH, low-molecular-weight heparin; NSTE-ACS, non-ST-elevation myocardial infarction; SD, standard deviation; STEMI, ST-elevation myocardial infarction; UFH, unfractionated heparin.

**Table S3** Independent predictors of duration of hospital stay (modelled as log[days]), using forward stepwise multiple regression on multivariable analysis*

| Variable | Ratio Estimate (95% CI)[†] | Z Statistic | p Value |
|---|---|---|---|
| Region | | | |
| Latin America vs Northern Europe | 1.245 (1.206, 1.285) | 13.60 | <0.0001 |
| Southern Europe vs Northern Europe | 1.097 (1.067, 1.127) | 6.58 | <0.0001 |
| Eastern Europe vs Northern Europe | 1.029 (1.001, 1.058) | 2.04 | 0.04 |
| Centre type | | | |
| Other type of hospital/clinic vs regional/community/rural hospital | 0.818 (0.785, 0.853) | 9.43 | <0.0001 |
| University general hospital vs regional/community/rural hospital | 0.940 (0.913, 0.966) | 4.35 | <0.0001 |
| Non-university general hospital vs regional/community/rural hospital | 0.949 (0.921, 0.977) | 3.53 | <0.001 |
| Killip Class 2/3/4 vs 1/unknown | 1.166 (1.130, 1.204) | 9.43 | <0.0001 |
| LVEF <30% or severely reduced vs others | 1.329 (1.243, 1.421) | 8.29 | <0.0001 |
| STEMI vs NSTE-ACS | 1.084 (1.061, 1.107) | 7.47 | <0.0001 |
| Age (calculated) | 1.003 (1.002, 1.004) | 6.30 | <0.0001 |
| Diabetes mellitus, yes vs no/unknown | 1.073 (1.047, 1.100) | 5.64 | <0.0001 |
| Cath lab facilities, yes vs no/unknown | 0.929 (0.905, 0.953) | 5.57 | <0.0001 |

| | | | |
|---|---|---|---|
| Prior non-CVD, yes vs no/unknown | 1.053 (1.028, 1.078) | 4.28 | <0.0001 |
| Peripheral vascular disease, yes vs no/unknown | 1.102 (1.051, 1.154) | 4.06 | <0.0001 |
| Chronic CV medication, yes vs no/unknown | 0.952 (0.927, 0.977) | 3.72 | <0.001 |
| Coronary angiogram diagnostic for CAD, yes vs no/unknown | 0.937 (0.905, 0.971) | 3.61 | <0.001 |
| Hypertension, yes vs no/unknown | 1.044 (1.019, 1.069) | 3.54 | <0.001 |
| Health care use in past 3 mo, yes vs no/unknown | 1.041 (1.016, 1.067) | 3.20 | <0.01 |
| Hypercholesterolaemia, yes vs no/unknown | 1.032 (1.011, 1.055) | 2.93 | <0.01 |
| Gender male vs female | 0.969 (0.946, 0.993) | 2.53 | 0.01 |
| Major bleeding in the previous 6 months, yes vs no/unknown | 1.170 (1.036, 1.322) | 2.52 | 0.01 |
| Family history of CHD, yes vs no/unknown | 0.973 (0.952, 0.995) | 2.37 | 0.02 |

*n=10 568 observations read, n=10 566 used, n=2 with missing values.

[†]The ratio estimate provides the relative increase in duration of hospital stay (eg, 1.084 for STEMI vs NSTE-ACS means that STEMI patients spent an average 8.4% more time in hospital).

CAD, coronary artery disease; CHD, coronary heart disease; CI, confidence interval; CV, cardiovascular; CVD, CV disease; LVEF, left ventricular ejection fraction; NSTE-ACS, non-ST-elevation acute coronary syndrome; STEMI, ST-elevation myocardial infarction.

**Table S4** Independent predictors of in-hospital coronary revascularisation (PCI or CABG) on multivariable analysis*

| Variable | Odds Ratio (95% CI) | Z Statistic | p Value |
|---|---|---|---|
| Cath lab facilities, yes vs no/unknown | 4.878 (4.319, 5.508) | 25.55 | <0.0001 |
| Region | | | |
| Latin America vs Northern Europe | 0.146 (0.126, 0.170) | 24.78 | <0.0001 |
| Eastern Europe vs Northern Europe | 0.412 (0.360, 0.472) | 12.84 | <0.0001 |
| Southern Europe vs Northern Europe | 0.778 (0.677, 0.893) | 3.55 | <0.001 |
| STEMI vs NSTE-ACS | 2.558 (2.309, 2.835) | 17.92 | <0.0001 |
| Gender male vs female | 1.568 (1.403, 1.753) | 7.91 | <0.0001 |
| Centre type[†] | | | |
| Non-university general hospital vs regional/community/rural hospital | 0.585 (0.508, 0.673) | 7.47 | <0.0001 |
| University general hospital vs regional/community/rural hospital | 0.706 (0.615, 0.810) | 4.96 | <0.0001 |
| Any cardiac disease (MI, prior PCI, prior CABG, or chronic angina), yes vs no/unknown | 0.672 (0.582, 0.776) | 5.42 | <0.0001 |
| Atrial fibrillation, yes vs no/unknown | 0.646 (0.521, 0.801) | 3.99 | <0.0001 |
| Family history of CHD, yes vs no/unknown | 1.237 (1.110, 1.379) | 3.84 | 0.0001 |
| Degree of dependence prior to index event | | | |
| Non-severe dependence vs no dependence/unknown | 0.675 (0.543, 0.839) | 3.54 | <0.001 |

| | | | |
|---|---|---|---|
| Severe dependence vs no dependence/unknown | 0.439 (0.243, 0.793) | 2.73 | <0.01 |
| Heart failure, yes vs no/unknown | 0.714 (0.570, 0.895) | 2.93 | <0.01 |
| Coronary angiogram diagnostic for CAD, yes vs no/unknown | 1.253 (1.069, 1.470) | 2.78 | <0.01 |
| | | | |
| Time from symptom onset to hospital admission <1 h vs ≥1 h/unknown | 1.360 (1.142, 1.620) | 3.45 | <0.001 |
| Current smoking vs never/unknown | 1.155 (1.023, 1.304) | 2.33 | 0.02 |
| Diabetes mellitus, yes vs no/unknown | 0.883 (0.789, 0.989) | 2.16 | 0.03 |

*n=10 568 observations read, n=10 515 used.

[†]It should be noted that patients could be transferred to a different hospital for the purposes of PCI or CABG, then transferred back and enrolled in the study at discharge from the original hospital. For example, a patient enrolled at a rural hospital without cath lab facilities could be transferred to a university hospital for PCI, and then transferred back again. In this case, the PCI is attributed to the rural hospital that discharged the patient. For this reason, results shown here appear to indicate that less PCI/CABG was carried out in university and non-university hospitals vs regional/rural hospitals.

CABG, coronary artery bypass graft; CAD, coronary artery disease; CHD, coronary heart disease; CI, confidence interval; CV, cardiovascular; CVD, CV disease; MI, myocardial infarction; NSTE-ACS, non-ST-elevation acute coronary syndrome; PCI, percutaneous coronary intervention; STEMI, ST-elevation myocardial infarction.

**Table S5** Multivariable analysis of variables potentially affecting in-hospital coronary revascularisation*

| | Odds Ratio (95% CI) | Z Statistic | p Value |
|---|---|---|---|
| Cath lab facilities, yes vs no/unknown | 4.878 (4.139, 5.508) | 25.55 | <0.0001 |
| Region | | | |
|     Latin America vs Northern Europe | 0.146 (0.126, 0.170) | 24.78 | <0.0001 |
|     Eastern Europe vs Northern Europe | 0.412 (0.360, 0.472) | 12.84 | <0.0001 |
|     Southern Europe vs Northern Europe | 0.778 (0.677, 0.893) | 3.55 | <0.001 |
| STEMI vs NSTE-ACS | 2.558 (2.309, 2.835) | 17.92 | <0.0001 |
| Gender male vs female | 1.568 (1.403, 1.753) | 7.91 | <0.0001 |
| Centre type[†] | | | |
|     Non-university general hospital vs regional/community/rural hospital | 0.585 (0.508, 0.673) | 7.47 | <0.0001 |
|     University general hospital vs regional/community/rural hospital | 0.706 (0.615, 0.810) | 4.96 | <0.0001 |
|     Other type of hospital/clinic vs regional/community/rural hospital | 1.181 (0.965, 1.446) | 1.61 | 0.11 |
| Any cardiac disease (MI, prior PCI, prior CABG or chronic angina), yes vs no/unknown | 0.672 (0.582, 0.776) | 5.42 | <0.0001 |
| Atrial fibrillation, yes vs no/unknown | 0.646 (0.521, 0.801) | 3.99 | <0.0001 |
| Family history of CHD, yes vs no/unknown | 1.237 (1.110, 1.379) | 3.84 | 0.0001 |
| Degree of dependence prior to index event | | | |
|     Non-severe vs no dependence/unknown | 0.675 (0.543, 0.839) | 3.54 | <0.001 |
|     Severe vs no dependence/unknown | 0.439 (0.243, 0.793) | 2.73 | <0.01 |

| | | | |
|---|---|---|---|
| Time from symptom onset to hospital admission <1 h vs ≥1 h/unknown | 1.360 (1.142, 1.620) | 3.45 | <0.001 |
| Heart failure, yes vs no/unknown | 0.714 (0.570, 0.895) | 2.93 | <0.01 |
| Coronary angiogram diagnostic for CAD, yes vs no/unknown | 1.253 (1.069, 1.470) | 2.78 | <0.01 |
| Current smoking vs never/unknown | 1.155 (1.023, 1.304) | 2.33 | 0.02 |
| Diabetes mellitus, yes vs no/unknown | 0.883 (0.789, 0.989) | 2.16 | 0.03 |
| LVEF <30% or severely reduced vs others | 0.740 (0.546, 1.003) | 1.94 | 0.05 |
| Hypertension, yes vs no/unknown | 1.088 (0.971, 1.220) | 1.45 | 0.15 |
| Health care use in past 3 months, yes vs no/unknown | 1.087 (0.970, 1.218) | 1.44 | 0.15 |
| Major bleeding in the previous 6 months, yes vs no/unknown | 1.410 (0.796, 2.498) | 1.18 | 0.24 |
| Age (calculated) | 0.997 (0.993, 1.002) | 1.12 | 0.26 |
| Chronic CV medication, yes vs no/unknown | 0.935 (0.825, 1.059) | 1.06 | 0.29 |
| Peripheral vascular disease, yes vs no/unknown | 0.913 (0.738, 1.129) | 0.84 | 0.40 |
| Killip Class 2/3/4 vs 1/unknown | 0.952 (0.820, 1.105) | 0.65 | 0.52 |
| Prior non-CVD, yes vs no/unknown | 0.967 (0.865, 1.081) | 0.60 | 0.55 |
| Former smoking vs never/unknown | 1.037 (0.920, 1.169) | 0.59 | 0.56 |
| Hypercholesterolaemia, yes vs no/unknown | 0.973 (0.879, 1.077) | 0.53 | 0.60 |
| TIA/stroke, yes vs no/unknown | 0.994 (0.802, 1.231) | 0.06 | 0.95 |

*n=10 568 observations read, n=10 515 used.

[†]See footnote under Table S4

CABG, coronary artery bypass graft; CAD, coronary artery disease; CHD, coronary heart disease; CV, cardiovascular; CVD, cardiovascular disease; PCI, percutaneous coronary intervention; MI, myocardial infarction; TIA, transient ischaemic attack; LVEF, left ventricular ejection fraction.

**Table S6** Multivariable analysis of variables potentially affecting any therapeutic procedure (resuscitation, mechanical ventilation, intra-aortic balloon pumping, temporary/permanent pacemaker, implantable cardiac defibrillator, cardiac resynchronisation therapy)*

| | Odds Ratio | | |
| --- | --- | --- | --- |
| | (95% CI) | Z Statistic | p Value |
| STEMI vs NSTE-ACS | 2.076 (1.754, 2.456) | 8.51 | <0.0001 |
| Killip Class 2/3/4 vs 1/unknown | 2.000 (1.636, 2.446) | 6.75 | <0.0001 |
| LVEF <30% or severely reduced vs others | 2.511 (1.766, 3.568) | 5.13 | <0.0001 |
| Region | | | |
| Eastern Europe vs Northern Europe | 0.560 (0.441, 0.712) | 4.75 | <0.0001 |
| Latin America vs Northern Europe | 1.186 (0.940, 1.497) | 1.44 | 0.15 |
| Southern Europe vs Northern Europe | 1.094 (0.893, 1.341) | 0.87 | 0.38 |
| Centre type[†] | | | |
| Other type of hospital/clinic vs regional/community/rural hospital | 0.606 (0.437, 0.840) | 3.00 | <0.01 |
| Non-university general hospital vs regional/community/rural hospital | 0.775 (0.616, 0.975) | 2.18 | 0.03 |
| University general hospital vs regional/community/rural hospital | 0.948 (0.765, 1.176) | 0.49 | 0.63 |
| Cath lab facilities, yes vs no/unknown | 1.334 (1.081, 1.647) | 2.68 | <0.01 |
| Time from symptom onset to hospital admission <1 h vs ≥1 h/unknown | 1.268 (0.998, 1.612) | 1.94 | 0.05 |
| Family history of CHD, yes vs no/unknown | 0.838 (0.701, 1.002) | 1.93 | 0.05 |
| TIA/stroke, yes vs no/unknown | 1.316 (0.951, 1.821) | 1.66 | 0.10 |

| | | | |
|---|---|---|---|
| Major bleeding in the previous 6 months, yes vs no/unknown | 0.336 (0.081, 1.402) | 1.50 | 0.13 |
| Age (calculated) | 1.005 (0.998, 1.013) | 1.41 | 0.16 |
| Heart failure, yes vs no/unknown | 1.254 (0.880, 1.787) | 1.25 | 0.21 |
| Hypercholesterolaemia, yes vs no/unknown | 1.090 (0.925, 1.286) | 1.03 | 0.30 |
| Prior non-CVD, yes vs no/unknown | 0.910 (0.758, 1.092) | 1.02 | 0.31 |
| Health care use in past 3 months yes vs no/unknown | 1.098 (0.910, 1.324) | 0.98 | 0.33 |
| Any cardiac disease (MI, prior PCI, prior CABG or chronic angina), yes vs no/unknown | 0.890 (0.689, 1.149) | 0.89 | 0.37 |
| Coronary angiogram diagnostic for CAD, yes vs no/unknown | 1.137 (0.856, 1.509) | 0.89 | 0.38 |
| Former smoking vs never/unknown | 1.090 (0.897, 1.325) | 0.87 | 0.39 |
| Atrial fibrillation, yes vs no/unknown | 1.160 (0.819, 1.643) | 0.84 | 0.40 |
| Peripheral vascular disease, yes vs no/unknown | 1.136 (0.814, 1.587) | 0.75 | 0.45 |
| Current smoking vs never/unknown | 0.945 (0.776, 1.151) | 0.56 | 0.58 |
| Degree of dependence prior to index event | | | |
|     Non-severe vs no dependence/unknown | 1.130 (0.799, 1.598) | 0.69 | 0.49 |
|     Severe vs no dependence/unknown | 1.176 (0.485, 2.850) | 0.36 | 0.72 |
| Chronic CV medication, yes vs no/unknown | 0.944 (0.772, 1.155) | 0.56 | 0.58 |
| Gender male vs female | 1.048 (0.868, 1.266) | 0.49 | 0.62 |
| Diabetes mellitus, yes vs no/unknown | 0.964 (0.798, 1.165) | 0.38 | 0.70 |
| Hypertension, yes vs no/unknown | 1.004 (0.835, 1.209) | 0.04 | 0.96 |

*n=10 568 observations read, n=10 535 used.

†It should be noted that patients could be transferred to a different hospital for the purposes of a therapeutic procedure, then transferred back and enrolled in the study at discharge from the original hospital. For example, a patient enrolled at a rural hospital could be transferred to a university hospital for intra-aortic balloon pumping, and then transferred back again. In this case, the procedure is attributed to the rural hospital that discharged the patient.  For this reason, results shown here appear to indicate that fewer therapeutic procedures were carried out in university and non-university hospitals vs regional/rural hospitals.

CABG, coronary artery bypass graft; CAD, coronary artery disease; CHD, coronary heart disease; CV, cardiovascular; CVD, cardiovascular disease; PCI, percutaneous coronary intervention; MI, myocardial infarction; TIA, transient ischaemic attack; LVEF, left ventricular ejection fraction.

**Table S7** Multivariable analysis of variables potentially affecting use of any fibrinolytic*

| | Odds Ratio (95% CI) | Z Statistic | p Value |
|---|---|---|---|
| STEMI vs NSTE-ACS | 25.915 (19.286, 34.823) | 21.59 | <0.0001 |
| Region | | | |
| Latin America vs Northern Europe | 3.204 (2.594, 3.958) | 10.80 | <0.0001 |
| Southern Europe vs Northern Europe | 1.458 (1.185, 1.794) | 3.56 | <0.001 |
| Eastern Europe vs Northern Europe | 0.985 (0.789, 1.229) | 0.14 | 0.89 |
| Cath lab facilities, yes vs no/unknown | 0.427 (0.356, 0.512) | 9.20 | <0.0001 |
| Centre type[†] | | | |
| University general hospital vs regional/community/rural hospital | 1.611 (1.291, 2.009) | 4.23 | <0.0001 |
| Non-university general hospital vs regional/community/rural hospital | 1.458 (1.160, 1.833) | 3.23 | <0.01 |
| Other type of hospital/clinic vs regional/community/rural hospital | 0.987 (0.728, 1.338) | 0.09 | 0.93 |
| Prior non-CVD, yes vs no/unknown | 0.836 (0.694, 1.008) | 1.87 | 0.06 |
| Age (calculated) | 0.994 (0.987, 1.000) | 1.83 | 0.07 |
| Any cardiac disease (MI, prior PCI, prior CABG or chronic angina), yes vs no/unknown | 0.780 (0.594, 1.024) | 1.79 | 0.07 |
| Atrial fibrillation, yes vs no/unknown | 0.677 (0.391, 1.172) | 1.39 | 0.16 |
| Current smoking vs never/unknown | 1.104 (0.927, 1.315) | 1.11 | 0.27 |
| Diabetes mellitus, yes vs no/unknown | 1.103 (0.918, 1.326) | 1.05 | 0.30 |
| Hypercholesterolaemia, yes vs no/unknown | 1.080 (0.925, 1.261) | 0.97 | 0.33 |

| | | | |
|---|---|---|---|
| Major bleeding in the previous 6 months, yes vs no/unknown | 0.588 (0.169, 2.048) | 0.83 | 0.40 |
| Peripheral vascular disease, yes vs no/unknown | 0.828 (0.524, 1.309) | 0.81 | 0.42 |
| Time from symptom onset to hospital admission <1 h vs ≥1 h/unknown | 1.090 (0.875, 1.359) | 0.77 | 0.44 |
| LVEF <30% or severely reduced vs others | 1.189 (0.751, 1.882) | 0.74 | 0.46 |
| TIA/stroke, yes vs no/unknown | 1.155 (0.761, 1.754) | 0.46 | 0.50 |
| Hypertension, yes vs no/unknown | 0.961 (0.808, 1.143) | 0.45 | 0.65 |
| Heart failure, yes vs no/unknown | 1.103 (0.634, 1.920) | 0.35 | 0.73 |
| Health care use in past 3 months yes vs no/unknown | 0.968 (0.794, 1.179) | 0.33 | 0.74 |
| Family history of CHD, yes vs no/unknown | 0.973 (0.827, 1.146) | 0.32 | 0.75 |
| Killip Class 2/3/4 vs 1/unknown | 0.964 (0.765, 1.214) | 0.31 | 0.76 |
| Chronic CV medication, yes vs no/unknown | 1.025 (0.852, 1.233) | 0.26 | 0.79 |
| Degree of dependence prior to index event | | | |
| Non-severe vs no dependence/unknown | 0.949 (0.611, 1.473) | 0.23 | 0.82 |
| Severe vs no dependence/unknown | 1.025 (0.334, 3.148) | 0.04 | 0.97 |
| Coronary angiogram diagnostic for CAD, yes vs no/unknown | 1.035 (0.738, 1.451) | 0.20 | 0.84 |
| Former smoking vs never/unknown | 1.010 (0.828, 1.233) | 0.10 | 0.92 |
| Gender male vs female | 1.004 (0.836, 1.207) | 0.04 | 0.96 |

*n=10 568 observations read, n=10 536 used.

[†]It should be noted that patients could be transferred to a different hospital for the purposes of fibrinolysis, then transferred back and enrolled in the study at discharge from the original hospital. For example, a patient enrolled at a rural hospital could be transferred to a university hospital for fibrinolysis, and then transferred back again. In this case, the

fibrinolysis is attributed to the rural hospital that discharged the patient. For this reason, results shown here appear to indicate that less fibrinolysis was carried out in university and non-university hospitals vs regional/rural hospitals.

CABG, coronary artery bypass graft; CAD, coronary artery disease; CHD, coronary heart disease; CV, cardiovascular; CVD, cardiovascular disease; PCI, percutaneous coronary intervention; MI, myocardial infarction; TIA, transient ischaemic attack; LVEF, left ventricular ejection fraction.

**Table S8** Independent predictors of any in-hospital therapeutic procedure (resuscitation, mechanical ventilation, intra-aortic balloon pumping, temporary/permanent pacemaker, implantable cardiac defibrillator, cardiac resynchronisation therapy) on multivariable analysis*

| Variable | Odds Ratio (95% CI) | Z Statistic | p Value |
|---|---|---|---|
| STEMI vs NSTE-ACS | 2.076 (1.754, 2.456) | 8.51 | <0.0001 |
| LVEF <30% or severely reduced vs others | 2.511 (1.766, 3.568) | 5.13 | <0.0001 |
| Killip Class 2/3/4 vs 1/unknown | 2.000 (1.636, 2.446) | 6.75 | <0.0001 |
| Region | | | |
| Eastern Europe vs Northern Europe | 0.560 (0.441, 0.712) | 4.75 | <0.0001 |
| Centre type[†] | | | |
| Other type of hospital/clinic vs regional/community/rural hospital | 0.606 (0.437, 0.840) | 3.00 | <0.01 |
| Non-university general hospital vs regional/community/rural hospital | 0.775 (0.616, 0.975) | 2.18 | 0.03 |
| University general hospital vs regional/community/rural hospital | 0.948 (0.765, 1.176) | 0.49 | 0.6274 |
| Cath lab facilities, yes vs no/unknown | 1.334 (1.081, 1.647) | 2.68 | <0.01 |

*n=10 568 observations read, n=10 535 used.

[†]See footnote under Table S6.

CI, confidence interval; LVEF, left ventricular ejection fraction; NSTE-ACS, non-ST-elevation acute coronary syndrome; STEMI, ST-elevation myocardial infarction.