

Supplementary data

Table S1. ICD-9 and ICD-10 Codes Used to Define Comorbidities.

Comorbidity	ICD-10 Code(s)	ICD-9 Code(s)
Atrial fibrillation	I48.0, I48.1, I48.2, I48.3, I48.4, I48.91, I48.92	427.31
Coronary artery disease	I25.0, I25.10, I25.110, I25.111, I25.118, I25.119, I25.2, I25.3, I25.4, I25.5, I25.6, I25.700, I25.701, I25.708, I25.709, I25.710, I25.711, I25.718, I25.719, I25.720, I25.721, I25.728, I25.729, I25.730, I25.731, I25.738, I25.739, I25.750, I25.751, I25.758, I25.759, I25.810, I25.811, I25.812, I25.89, I25.9	414.00, 414.01, 414.02, 414.03, 414.04
Chronic kidney disease	N18.1, N18.2, N18.3, N18.4, N18.5, N18.6, N18.9	585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9
COPD	J44.0, J44.1, J44.9	496
Diabetes mellitus	E08.0–E08.9, E09.0–E09.9, E10.0–E10.9, E11.0–E11.9, E13.0–E13.9	250.00–250.93
Congestive heart failure	I50.1, I50.2, I50.3, I50.4, I50.9	428.0, 428.1, 428.2, 428.3
Hyperlipidemia	E78.0, E78.1, E78.2, E78.3, E78.4, E78.5, E78.6, E78.70, E78.71, E78.72, E78.79, E78.81, E78.89, E78.9	272.0, 272.1, 272.2, 272.3, 272.4
Hypertension	I10	401.0, 401.1, 401.9
Liver disease	K70.0–K70.9, K71.0–K71.9, K72.0–K72.9, K73.0–K73.9, K74.0–K74.9, K75.0–K75.9, K76.0–K76.9, K77, B18.0–B18.2, E83.11, R74.8	570, 571.0–571.9, 572.0–572.8, 573.0–573.9, 070.2–070.9
Prior CABG	Z95.1	V45.81
Prior PCI	Z95.5	V45.82
Peripheral vascular disease	I73.9, I70.20, I70.21, I70.22, I70.23, I70.24, I70.25, I70.26, I70.29	443.9, 440.20, 440.21, 440.22, 440.23, 440.24, 440.29
Smoker	F17.200, F17.201, F17.210, F17.211, F17.220, F17.221, F17.290, F17.291, Z72.0, Z87.891	305.1, V15.82

Table S2. ICD-9 and ICD-10 Codes Used to Define In-Hospital Events and Procedures.

Category	ICD-10 Code(s)	ICD-9 Code(s)
Stroke	I63.0, I63.1, I63.2, I63.3, I63.4, I63.5, I63.6, I63.8, I63.9 (ischemic); I61.0, I61.1, I61.2, I61.3, I61.4, I61.5, I61.6, I61.8, I61.9 (hemorrhagic)	433.x1, 434.x1, 436, 431
Acute kidney injury	N17.0, N17.1, N17.2, N17.8, N17.9	584.5, 584.6, 584.7, 584.8, 584.9
Vascular complications	T82.857A (vascular graft complication), I97.61 (post-op hematoma), I97.71 (post-op hemorrhage), I97.89 (other post-procedural complications)	998.2 (hemorrhage), 999.1 (embolism), 999.2 (other vascular complications)
Cardiogenic shock	R57.0	785.51
Cardiac arrest	I46.2 (cardiac arrest due to cardiac condition), I46.8 (other cardiac arrest), I46.9 (unspecified)	427.5
Coronary angiogram	B2151ZZ, B215YZZ, B215ZZZ (diagnostic cardiac catheterization by different approaches)	88.55
Percutaneous coronary intervention (PCI)	02703ZZ, 02713ZZ, 02723ZZ, 02733ZZ, 027034Z, 02713DZ	36.06, 36.07, 00.66
Surgical mitral valve replacement	02RG0JZ (open approach), 02RG0ZZ (replacement without prosthetic), 02RG0KH (prosthetic replacement)	35.23
Mechanical circulatory support	5A0221D (Impella device), 5A02110 (Intra-aortic balloon pump - IABP), 5A1522F (ECMO)	37.66 (IABP), 37.68 (Impella), 39.65 (ECMO)