

# **SUPPLEMENTAL MATERIAL**

**Table S1. List of diagnoses according to ICD-10: International classification of diseases 10th version.**

<b>Variable</b>	<b>ICD-codes</b>
<b>Intracranial bleeding</b>	I60, I61, I62, I690, I691, I692
<b>Gastrointestinal bleeding</b>	I850, I983, K226, K250, K252, K254, K256, K260, K262, K264, K266, K270, K272, K274, K276, K280, K284, K290, K625, K661, K920, K921, K922, K25, K26, K27, K28, I850, I983, K221, K226
<b>Hemopericardium</b>	I230, I312
<b>Hemothorax</b>	J942
<b>Urogenital bleeding</b>	N02, R319, N95, N939, N501A
<b>Other bleeding</b>	H431, R04, R58, D629, T810, DR029, D50
<b>Anemia</b>	D50-64
<b>Atrial fibrillation</b>	I48
<b>Ischemic stroke</b>	I63, I69.3, I69.4
<b>Stroke unspecified</b>	I64
<b>Transitory ischemic attack</b>	G45, I66, I65
<b>Peripheral arterial embolism</b>	I74
<b>Heart failure</b>	I50, I110, I130, I132, I255, I42-43
<b>Hypertension</b>	I10-15
<b>Diabetes mellitus</b>	E10-14
<b>Ischemic heart disease</b>	I20, I24, I25
<b>Myocardial infarction</b>	I21, I22
<b>Percutaneous coronary intervention</b>	FNG
<b>Peripheral vascular disease</b>	I70, I71, I72, I73, I74, I77
<b>Vascular disease</b>	I21, I22, I252, I70-73
<b>Renal disease and RRT</b>	N17-19, DR016, DR024, KAS10, KAS20
<b>Liver disease</b>	K70-77, JJB, JJC
<b>Alcohol related conditions</b>	E244, F10, G312, G621, G721, I426, K292, K70, K860, O354, P043, Q860, T51, Y90-91, Z502, Z714
<b>Chronic obstructive pulmonary disease</b>	J44
<b>Pulmonary embolism</b>	I26
<b>Deep vein thrombosis</b>	I80
<b>Major bleeding</b>	D62, N03, R31, D683, H356, H922, I230, I312, J942, M250, N421, N939, N950, R040, R041, R042, R048, R049, N501A + Intracranial bleeding + Gastrointestinal bleeding

RRT: Renal replacement therapy

**Table S2. List of medications according to ATC: The Anatomical Therapeutic Classification.**

<b>Medication</b>	<b>ATC-codes</b>
<b>Renin-angiotensin inhibitors</b>	C09
<b>Betablockers</b>	C07 (excluding C07AA07)
<b>Mineralocorticoid receptor antagonists</b>	C03DA
<b>Calcium antagonists</b>	C08
<b>Oral anticoagulants</b>	B01AA, B01AE, B01AF
<b>Antiplatelets</b>	B01AC
<b>Lipid lowering agents</b>	C10
<b>Antidiabetics</b>	A10
<b>Systemic corticosteroids</b>	H02
<b>Antiinflammatory and antirheumatic agents</b>	M01
<b>Diuretics</b>	C03 (excluding C03DA)
<b>Antiarrhythmic drugs</b>	C01B, C07AA07
<b>Digoxin</b>	C01AA05

**Table S3. Baseline characteristics according to CHA<sub>2</sub>DS<sub>2</sub>-VASc category presented as number and proportions (%) or mean (SD).**

		1	2	3	4	5	6	7	8	9
	<b>All patients (n= 6368)</b>	<b>n= 328 (5.2%)</b>	<b>n= 1066 (16.7%)</b>	<b>n= 1662 (26.1%)</b>	<b>n= 1621 (25.5%)</b>	<b>n= 1038 (16.3%)</b>	<b>n= 423 (6.6%)</b>	<b>n= 179 (2.8%)</b>	<b>n= 47 (0.7%)</b>	<b>n= 4 (0.1%)</b>
<b>Male sex</b>	5170 (81.2)	392 (100.0)	1041 (97.7)	1534 (92.3)	1310 (80.8)	616 (59.3)	240 (56.7)	89 (49.7)	12 (25.5)	0 (0.0)
<b>Age [yrs]</b>	69.9 (7.9)	58.6 (4.9)	63.6 (6.6)	68.8 (6.7)	72.6 (6.6)	74.3 (6.1)	75.4 (5.9)	75.1 (5.4)	77.4 (3.9)	76.8 (1.7)
<b>Body mass index I [kg*m-2]</b>	27.6 (5.0)	26.9 (3.6)	27.6 (3.9)	27.7 (5.2)	27.7 (6.3)	27.6 (4.3)	28.0 (4.5)	27.6 (4.5)	27.2 (4.4)	27.6 (2.3)
<b>Acute coronary syndrome</b>	3196 (50.2)	158 (48.2)	474 (44.5)	782 (47.1)	810 (50.0)	573 (55.2)	260 (61.5)	106 (59.2)	30 (63.8)	3 (75.0)
<b>Heart failure</b>	825 (13.0)	0 (0.0)	33 (3.1)	120 (7.2)	194 (12.0)	227 (21.9)	150 (35.5)	73 (40.8)	24 (51.1)	4 (100.0)
<b>Hypertension</b>	4727 (74.2)	0 (0.0)	483 (45.3)	1190 (71.6)	1453 (89.6)	971 (93.5)	402 (95.0)	177 (98.9)	47(100.0)	4 (100.0)
<b>Diabetes mellitus</b>	1915 (30.1)	0 (0.0)	63 (5.9)	320 (19.3)	624 (38.5)	496 (47.8)	248 (58.6)	117 (65.4)	43 (91.5)	4 (100.0)
<b>Peripheral vascular disease</b>	658 (10.3)	7 (2.1)	66 (6.2)	148 (8.9)	174 (10.7)	139 (13.4)	62 (14.7)	48 (26.8)	12 (25.5)	2 (50.0)
<b>Previous stroke</b>	438 (6.9)	0 (0.0)	0 (0.0)	2 (0.1)	39 (2.4)	131 (12.6)	145 (34.3)	89 (49.7)	32 (68.1)	0 (0.0)
<b>Transitory ischemic attack</b>	388 (6.1)	0 (0.0)	0 (0.0)	6 (0.4)	24 (1.5)	127 (12.2)	108 (25.5)	97 (54.2)	23 (48.9)	3 (75.0)
<b>Arterial embolism</b>	28 (0.4)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	11 (1.1)	6 (1.4)	7 (3.9)	2 (4.3)	1 (25.0)
<b>Pulmonary embolism</b>	39 (0.6)	1 (0.3)	2 (0.2)	11 (0.7)	9 (0.6)	9 (0.9)	4 (0.9)	2 (1.1)	1 (2.1)	0 (0.0)
<b>Deep vein thrombosis</b>	129 (2.0)	4 (1.2)	13 (1.2)	32 (1.9)	44 (2.7)	22 (2.1)	10 (2.4)	3 (1.7)	1 (2.1)	0 (0.0)
<b>Respiratory disease</b>	678 (10.6)	24 (7.3)	91 (8.5)	177 (10.6)	160 (9.9)	120 (11.6)	66 (15.6)	34 (19.0)	5 (10.6)	1 (25.0)
<b>Renal failure</b>	233 (3.7)	3 (0.9)	9 (0.8)	42 (2.5)	71 (4.4)	53 (5.1)	33 (7.8)	14 (7.8)	7 (14.9)	1 (25.0)
<b>Renal replacement therapy</b>	26 (0.4)	0 (0.0)	1 (0.1)	7 (0.4)	8 (0.5)	5 (0.5)	4 (0.9)	1 (0.6)	0 (0.0)	0 (0.0)
<b>Liver disease</b>	56 (0.9)	1 (0.3)	4 (0.4)	10 (0.6)	20 (1.2)	13 (1.3)	3 (0.7)	4 (2.2)	1 (2.1)	0 (0.0)
<b>Cancer</b>	969 (15.2)	18 (5.5)	100 (9.4)	255 (15.3)	285 (17.6)	197 (19.0)	80 (18.9)	28 (15.6)	6 (12.8)	0 (0.0)

**Table S4. Medications at discharge according to CHA<sub>2</sub>DS<sub>2</sub>-VASc category presented as number and proportions (%).**

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
	<b>All patients (n= 6368)</b>	<b>n= 328 (5.2%)</b>	<b>n= 1066 (16.7%)</b>	<b>n= 1662 (26.1%)</b>	<b>n= 1621 (25.5%)</b>	<b>n= 1038 (16.3%)</b>	<b>n= 423 (6.6%)</b>	<b>n= 179 (2.8%)</b>	<b>n= 47 (0.7%)</b>	<b>n= 4 (0.1%)</b>
<b>Antiplatelets</b>	6181 (97.1)	325 (99.1)	1050 (98.5)	1616 (97.2)	1575 (97.2)	995 (95.9)	403 (95.3)	168 (93.9)	45 (95.7)	4 (100.0)
<b>DAPT</b>	1304 (20.5)	75 (22.9)	236 (22.1)	322 (19.4)	312 (19.2)	194 (18.7)	101 (23.9)	50 (27.9)	12 (25.5)	2 (50.0)
<b>Lipid lowering agents</b>	6107 (95.9)	323 (98.5)	1040 (97.6)	1604 (96.5)	1539 (94.9)	995 (95.9)	406 (96.0)	159 (88.8)	37 (78.7)	4 (100.0)
<b>Beta blockers</b>	5909 (92.8)	305 (93.0)	998 (92.7)	1542 (92.8)	1494 (92.2)	980 (94.4)	394 (93.1)	162 (90.5)	40 (85.1)	4 (100.0)
<b>ACE-i /ARB</b>	4888 (76.8)	182 (55.5)	728 (68.3)	1247 (75.0)	1319 (81.4)	864 (83.2)	365 (86.3)	141 (78.8)	38 (80.9)	4 (100.0)
<b>MRA</b>	750 (11.8)	22 (6.7)	76 (7.1)	157 (9.4)	201 (12.4)	160 (15.4)	77 (18.2)	40 (22.3)	14 (29.8)	3 (75.0)
<b>CCB</b>	1774 (27.9)	17 (5.2)	185 (17.4)	446 (26.8)	546 (33.7)	354 (34.1)	140 (33.1)	68 (38.0)	18 (38.3)	0 (0.0)
<b>Diuretics</b>	3091 (48.5)	72 (22.0)	364 (34.1)	721 (43.4)	847 (52.3)	640 (61.7)	287 (67.8)	119 (66.5)	38 (80.9)	3 (75.0)
<b>Digoxin</b>	135 (2.1)	3 (0.9)	13 (1.2)	39 (2.3)	37 (2.3)	26 (2.5)	9 (2.1)	7 (3.9)	1 (2.1)	0 (0.0)
<b>Sotalol</b>	712 (11.2)	51 (15.5)	150 (14.1)	179 (10.8)	185 (11.4)	94 (9.1)	32 (7.6)	18 (10.1)	3 (6.4)	0 (0.0)
<b>Amiodarone</b>	763 (12.0)	42 (12.8)	137 (12.9)	197 (11.9)	193 (11.9)	119 (11.5)	47 (11.1)	24 (13.4)	3 (6.4)	1 (25.0)
<b>Antidiabetics</b>	1222 (19.2)	4 (1.2)	56 (5.3)	220 (13.2)	419 (25.8)	307 (29.6)	130 (30.7)	70 (39.1)	15 (31.9)	1 (25.5)

ACE-i: Angiotensin converting-enzyme inhibitor; ARB: Angiotensin receptor blocker; CCB: Calcium channel blocker; DAPT: Dual antiplatelete therapy; MRA: Mineralocorticoid receptorantagonist

**Table S5. The number of ischemic strokes at one-year according to sex and CHA<sub>2</sub>DS<sub>2</sub>-VASc score.**

CHA <sub>2</sub> DS <sub>2</sub> -VASc score	Total no. of ischemic strokes	Male		Female	
		No. of patients (%)	No. of ischemic strokes	No. of patients (%)	No. of ischemic strokes
1 (n=328)	1	328 (100.0)	1	0 (0.0)	0
2 (n=1066)	7	1041 (97.7)	7	25 (2.3)	0
3 (n=1662)	22	1534 (92.3)	18	128 (7.7)	4
4 (n=1621)	33	1310 (80.8)	27	311 (19.2)	6
5 (n=1038)	39	616 (59.3)	29	422 (40.7)	10
6 (n=423)	24	240 (56.7)	14	183 (43.3)	10
7 (n=179)	16	89 (49.7)	9	90 (50.3)	7
8-9 (n=51)	5	12 (23.5)	1	39 (76.5)	4

**Table S6. Number of events and event rates within one year per 100 patient-years with exact 95% Poisson confidence intervals (CI) by CHA<sub>2</sub>DS<sub>2</sub>-VASc score at discharge among 5875 patients with new-onset post-operative atrial fibrillation after isolated first-time coronary bypass surgery with at least one year follow-up and without oral anticoagulation**

CHA <sub>2</sub> DS <sub>2</sub> -VASc	n (%)	Ischemic stroke	
		No. of Events (n=124)	Event rate/100 patient-years (95% CI)
1	314 (5.3)	1	0.3 (0.0-2.3)
2	1007 (17.1)	7	0.7 (0.3-1.5)
3	1531 (26.1)	18	1.2 (0.7-1.9)
4	1492 (25.4)	30	2.0 (1.4-2.9)
5	953 (16.2)	33	3.5 (2.5-4.9)
6	380 (6.5)	20	5.3 (3.4-8.2)
7	152 (2.6)	12	7.9 (4.5-13.9)
8-9	46 (0.8)	3	6.5 (2.1-20.2)

**Table S7. Logistic regression sensitivity and specificity for the prediction of the one-year risk for ischemic stroke and any thromboembolism by CHA<sub>2</sub>DS<sub>2</sub>-VASc score.**

<b>CHA<sub>2</sub>DS<sub>2</sub>-VASc</b>	<b>Ischemic stroke</b>		<b>Any thromboembolism</b>	
	<b>Sensitivity</b>	<b>Specificity</b>	<b>Sensitivity</b>	<b>Specificity</b>
<b>1</b>	0	1	0	1
<b>2</b>	0.07	0.98	0.06	0.98
<b>3</b>	0.09	0.97	0.09	0.97
<b>4</b>	0.24	0.91	0.22	0.92
<b>5</b>	0.48	0.76	0.44	0.76
<b>6</b>	0.73	0.50	0.68	0.51
<b>7</b>	0.91	0.24	0.88	0.24
<b>8-9</b>	0.99	0.06	0.98	0.06



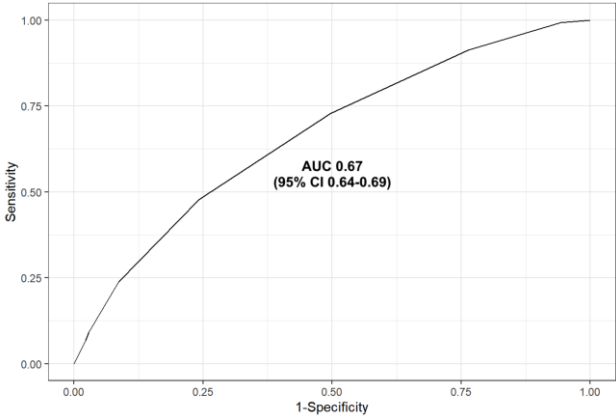
**Table S8. Number of events and event rates for ischemic stroke within one year per 100 patient-years with exact 95% Poisson confidence intervals (CI) by CHA<sub>2</sub>DS<sub>2</sub>-VASc score at discharge among all patients (n= 8232) with new-onset post-operative atrial fibrillation (POAF).**

<b>CHA<sub>2</sub>DS<sub>2</sub>-VASc</b>	<b>n (%)</b>	<b>Events (n= 209)</b>	<b>Event rate/100 patient-years (95% CI)</b>
1	392 (4.8)	2	0.5 (0.1-2.0)
2	1310 (15.9)	9	0.7 (0.4-1.3)
3	2165 (26.3)	27	1.2 (0.9-1.8)
4	2132 (25.9)	44	2.1 (1.5-2.8)
5	1331 (16.2)	55	4.1 (3.2-5.4)
6	588 (7.1)	43	7.3 (5.4-9.9)
7	244 (3.0)	22	9.0 (5.9-13.7)
8-9	70 (0.9)	7	10.0 (4.8-21.0)

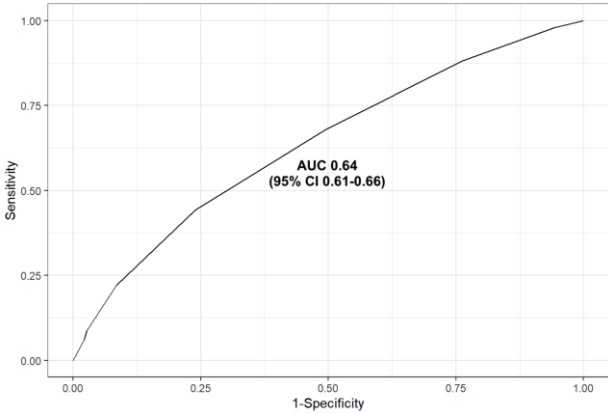
**Table S9. Number of events and event rates for ischemic stroke within one year per 100 patient-years with exact 95% Poisson confidence intervals (CI) by CHA<sub>2</sub>DS<sub>2</sub>-VASc score at discharge among 1864 patients with new-onset post-operative atrial fibrillation (POAF) discharged on oral anticoagulants (OAC).**

<b>CHA<sub>2</sub>DS<sub>2</sub>-VASc</b>	<b>n (%)</b>	<b>Events (n= 51)</b>	<b>Event rate/100 patient-years (95% CI)</b>
1	64 (3.4)	0	0 (0.0-5.6)
2	244 (13.1)	1	0.4 (0.1-2.9)
3	503 (27.0)	3	0.6 (0.2-1.8)
4	511 (27.4)	10	2.0 (1.1-3.6)
5	293 (15.7)	13	4.4 (2.6-7.6)
6	165 (8.9)	17	10.3 (6.4-16.6)
7	65 (3.5)	5	7.7 (3.2-18.5)
8-9	19 (1.0)	2	10.5 (2.6-42.1)

**Figure S1. ROC for CHA<sub>2</sub>DS<sub>2</sub>-VASc score as a predictor of ischemic stroke and any thromboembolism.**

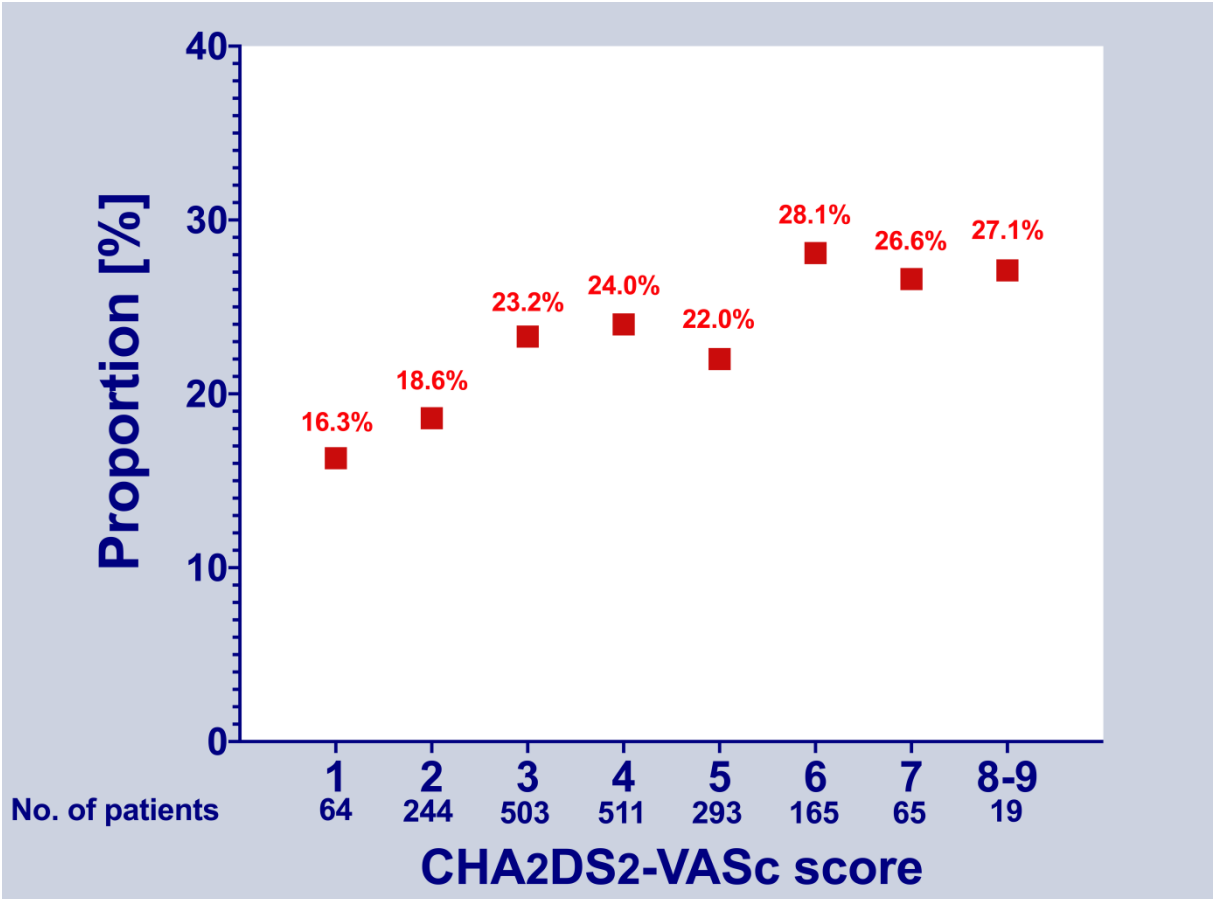


**Ischemic stroke**



**Any thromboembolism**

Figure S2. Oral anticoagulants at discharge.



]Proportions of patients with oral anticoagulant prescription at discharge among 8348 patients with new-onset post-operative atrial fibrillation divided by CHA2DS2-VASc score.