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Web appendix: Supplementary material

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Definitions of endpoints and comorbidities by ICD-10 codes

Diagnosis	ICD-10 code beginning with
Endpoint	
Stroke	I63-64
Comorbidities	
Ischemic stroke (narrow def)	I63 as first diagnosis only
Other thromboemboli	I63 as secondary diagnosis or I64, G45, I74 as first or secondary diagnosis
Pulmonary embolism	I26
Intracranial bleeding	I60-62
Other major bleeding	I850, I983, K25-28 (subcodes 0-2 and 4-6 only) K625, K922, D629
Anaemia	D50-64
Platelet or coagulation defect	D65-69
Myocardial infarction	I21, I252
Other vascular disease	I65, I70-73
Heart failure	I50
Pacemaker/ICD	Z950, Z450 or local implant code
Hypertension	I10-15
Renal disease	N17-19 or local code for transplantation or dialysis
Liver disease	K70-77 or local code for transplantation or resection
Diabetes mellitus	E10-14
Obesity	E65-66
Thyroid disease	E00-07
Emphysema/COPD	J43-44
Cancer within preceding 3 years	entire C-series
Alcohol index (National Board of Health and Welfare)	E244, F10, G312, G621, G721, I426, K292, K70, K860, O354, P043, Q860, T51, Y90-91, Z502, Z714
Dementia	F00-F03
Accidental falls (2 or more hospitalizations)	W00-19

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8 Baseline conditions for included and excluded patients

		Men 49.7% (n=50.135)	Women 50.3% (n=50.667)	p- value	Men 49.7% (n=47,245)	Women 50.3% (n=34,631)	p- value
Age, years	Mean±s.d.	74.7±13.5	80.9±10.6	<0.001	72.7±10.8	77.5±9.3	<0.001
	Median	78	83		74	79	
AF history	First ever < 7 days	62%	62%	0.13	56%	55%	<0.001
Medical history – more common in women	Thyroid disease	2%	10%	<0.001	2	10	<0.001
	Frequent falls	6%	13%	<0.001	3	7	<0.001
	Dementia	5%	7%	<0.001	1.8	2.7	0.001
	Pulmonary embolism	1.6%	2.2%	<0.001	3	5	<0.001
	Ischaemic stroke (narrow def)*	13%	16%	<0.001	14%	18%	<0.001
	Other thromboemboli*	6%	7%		8	9	
	Anaemia	12%	14%	<0.001	7	9	<0.001
	Hypertension	38%	46%	<0.001	41	48	<0.001
	Heart failure	31%	35%	<0.001	37	37	0.42
Medical history – more common in men	Intracranial bleeding	2.6%	2.0%	<0.001	1.6	1.3	0.001
	Other major bleeding	6%	6%		4	4	
	Pacemaker	7%	6%	<0.001	10	10	0.022
	Diabetes	18%	17%	<0.001	20	18	<0.001
	Emphysema/COPD	9%	7%	<0.001	7	7	0.98
	Myocardial infarction	22%	18%	<0.001	20	16	<0.001
	Other vasc. disease **	6%	5%		6	5	
	Cancer within 3 years	14%	9%	<0.001	9	7	<0.001
	Platelet/coag. defects	1.6%	1.1%	<0.001	2.2	1.8	<0.001
	Renal disease	7%	5%	<0.001	6	4	<0.001
	Liver disease	1.7%	1.1%	<0.001	0.9	0.7	0.001
Alcohol index***	5%	1%	<0.001	2.1	0.5	<0.001	
Risk score	CHADS2	1.9±1.4	2.3±1.4	<0.001	1.9±1.4	2.3±1.4	<0.001
	CHA2DS2-VASc	3.0±1.8	4.4±1.7	<0.001	3.0±1.7	4.4±1.6	<0.001
Antithrombotic medication	ASA only	58%	63%	<0.001	n/a	n/a	-
	Clopidogrel only	1.8%	2.1%	0.001	n/a	n/a	-
	ASA+Clopidogrel	6%	4%	<0.001	n/a	n/a	-
	None of the above	35%	31%	<0.001	n/a	n/a	-
Other medication	Betablocker	60%	65%	<0.001	73	75	<0.001
	Class 1 AA	2.5%	1.8%	<0.001	3.2	2.7	<0.001
	Class 3 AA	8%	6%	<0.001	11	9	<0.001
	Verapamil/Diltiazem	4%	5%	<0.001	5	8	<0.001
	Ca-blocker dihydropyridine	16%	18%	<0.001	19	19	0.73
	Digoxin	21%	29%	<0.001	29	37	<0.001
	Diuretics	49%	63%	<0.001	55	67	<0.001
	ACEI/ARB	41%	39%	<0.001	59	52	<0.001
Statin	26%	19%	<0.001	39	30	<0.001	

Exclusion criteria: Warfarin at baseline, death during index hospital period, mitral stenosis or previous valvular surgery.

*Ischaemic stroke (narrow def) is a prior diagnosis of ischaemic stroke (I63) as principal diagnosis only, Other thromboemboli is a prior secondary diagnosis of ischaemic stroke (I63), or principal or secondary diagnosis of unspecified stroke (I64), TIA (G45) or peripheral emboli (I74). **Alcohol index is a set of diagnostic codes used by the Swedish Board of Health of Welfare since 1987 when reporting alcohol related mortality (Definition in appendix). Medication at baseline defined as prescribed and purchased medication within 90 days before or after index date.

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Risk estimates of covariates included in the multivariable Cox model regarding ischaemic stroke

	HR	95 % CI	p-value	
Age (per year)	1.04	1.03 to 1.04	<0.001	
Thromboembolism			<0.001	
Ischemic stroke (narrow def)	3.35	3.18 to 3.53	<0.001	
Other thromboemboli	2.17	2.01 to 2.35	<0.001	
Heart failure	0.99	0.94 to 1.05	0.70	
Diabetes mellitus	1.13	1.06 to 1.20	<0.001	
Hypertension	1.11	1.06 to 1.17	<0.001	
Vascular disease			0.075	
Myocardial infarction	1.01	0.95 to 1.07	0.78	
Other vascular disease	1.12	1.02 to 1.23	0.023	
Bleeding			<0.001	
Intracranial bleeding	1.57	1.39 to 1.77	<0.001	
Other major bleeding	1.03	0.94 to 1.14	0.52	
Pacemaker	0.87	0.79 to 0.95	0.003	
Emphysema/COPD	0.99	0.90 to 1.09	0.83	
Pulmonary embolism	0.90	0.75 to 1.08	0.27	
Thyroid disease	1.00	0.91 to 1.09	0.98	
Platelet or coagulation defect	0.90	0.72 to 1.12	0.34	
Anaemia	0.94	0.87 to 1.01	0.11	
Renal disease	1.15	1.04 to 1.27	0.008	
Liver disease	0.98	0.77 to 1.25	0.88	
Alcohol index	1.23	1.05 to 1.44	0.010	
Dementia	0.78	0.70 to 0.86	<0.001	
Frequent falls	0.86	0.79 to 0.93	<0.001	
Cancer within 3 years	1.03	0.95 to 1.12	0.46	
Years since first diagnosis of AF	0.99	0.98 to 1.00	0.12	
Medication at baseline	ASA	1.21	1.14 to 1.28	<0.001
	Clopidogrel	1.06	0.97 to 1.16	0.22
	Beta-blocker	1.25	1.18 to 1.32	<0.001
	Class 1 AA	0.88	0.71 to 1.09	0.24
	Class 3 AA	0.95	0.86 to 1.05	0.33
	Verapamil/Diltiazem	1.33	1.20 to 1.47	<0.001
	Ca-blocker dihydropyridine	1.06	0.99 to 1.12	0.08
	Digoxin	1.01	0.96 to 1.07	0.59
	Diuretics	0.95	0.90 to 1.01	0.08
	ACEI/ARB	1.05	0.99 to 1.10	0.08
	Statin	0.95	0.90 to 1.01	0.12

Adjustments made for age, previous embolic event, heart failure, diabetes, hypertension, vascular disease, intracranial bleed, pacemaker, COPD, pulmonary embolism, thyroid disease, platelet defect or coagulopathy, anaemia, renal failure, liver disease, alcohol index, dementia, frequent falls, cancer within three years, years since first diagnosis of AF, medication with ASA, clopidogrel, betablocker, class I AA, class 3 AA, verapamil/diltiazem, dihydropyridine Ca-blocker, digoxin, diuretics, ACEI/ARB and statin. Reference is “No” for all categorical variables.