Supplementary table S1

ICD-10 (International Classification of Diseases, 10th revision) and NOMESCO (Nordic Medico-Statistical Committee) codes used in definitions of co-morbidities and outcomes. Comorbidities were recognized either by ICD-10 diagnoses from hospital stays, or by a combination of hospital diagnoses and drugs dispensed. ATC (Anatomical Therapeutic Chemical system) codes from NorPD identified disease-specific drugs (e.g. anti-diabetics) and ICD-10 or International Classification for Primary Care 2 (ICPC-2) codes used as reasons for reimbursement of drugs for chronic illnesses for less specific drugs (e.g. beta blockers).

Conditions	ICD-10 code or procedure codes (NOMESCO) from NPR	ATC code or reimbursement code in NorPD
Atrial fibrillation	I48	Reimbursement code: I48 , K78 (ICPC)
Additional diagnoses to identify "valvular atrial fibrillation"	ICD10: I050, I052, I342, Z952 NOMESCO codes: FKD00, FKA, FMD00,	
Hypertension	I10, I11, I12, I13, I15	Reimbursement codes: I10-I13, I15 (ICD10) or K86, K87 (ICPC)
Chronic kidney disease	N00, N01, N02, N03, N04, N05, N06, N07, N08, N14, N15, N16, N181, N182, N183, N184, N185, N189, N19	
Ischemic heart disease	I20, I21, I22, I23, I24, I25	
Heart failure	I500, I501, I509	Reimbursement codes: I50 (ICD10) or K77 (ICPC)
Diabetes	E10, E11, E12, E13	ATC code A10A or A10B
Chronic lower respiratory tract disorders	J40 – J47	Reimbursement codes: J44 , J45 (ICD10) or R95 (ICPC
Active cancer	C00, C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C30, C31, C32, C33, C34, C37, C38, C39, C40, C41, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C88, C90, C91, C92, C93, C94, C95, C96, C97	
Thyroid disorders	Hypothyroidism: E010, E011, E012, E018, E030, E031, E032, E033, E034, E035, E038, E039 Hyperthyroidism: E050, E051, E052, E053, E054, E055, E058, E059	
Peripheral artery disease	I70, I71, I72, I73, I74, I77, I78, I79	
Inflammatory polyarthropathies	M05 – M14	
Ischaemic stroke	I630, I631, I632, I633, I634, I635, I636, I638, I639, I64	
Transient ischaemic attack (TIA)	G450, G451, G452, G453, G454, G458, G459, G46	

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Conditions	ICD-10 code or procedure codes (NOMESCO) from NPR	ATC code or reimbursement code in NorPD
Ischaemic or haemorrhagic stroke	I600, I601, I602, I603, I604, I605, I606, I607, I608, I609, I610, I611, I612, I613, I614, I615, I616, I618, I619, I620, I621, I629, I630, I631, I632, I633, I634, I635, I636, I638, I639, I64,	
Major bleeding	K920, K921, I600-I609, I610-I619, I620-I629, I230, I312, M250, H431, H356, H313, H450, J942, K661 *Addition: A CRNM-bleeding diagnosis will be converted to a major bleeding diagnose if blood transfusion (NCMP REGG00, RXGG02) is coded within 10 days.*	
Systemic embolism	I74	
Intracranial bleeding	I600, I601, I602, I603, I604, I605, I606, I607, I608, I609, I610, I611, I612, I613, I614, I615, I616, I618, I619, I620, I621, I629	
Gastrointestinal bleeding	K920, K921, K922, K250, K252, K254, K256, K260, K262, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K625, K228, K221, K290, K528, K625, I850	
CRNM bleeding	K922, K250, K252, K254, K256, K260, K262, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K625, K228, K221, K290, K528, K625, I850, H113, R040, R041, R042, R048, R049, N836, N837, N920, N921, N922, N923, N924, N925, N926, N930, N938, N939, A985, N421, N857, N921, O721, S064, S065, S066, S068, T140, T141, T142, T143, T144, T145, T146, T147, T148, T149, D683, D698, D699, N02, R31, R58, D62	
Anaemia	D50, D51, D52, D53, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64	
Alcoholism	E244, E52, G312, G621, G721, I426, K70, K860, O354, T51, Z714, Z721	
Use of NSAID		M01A
Use of antiplatelet drugs		B01A C
Use of cholesterol lowering drugs		C10A, C10B

NPR, Norwegian Patient Registry; NorPD,Norwegian Prescription Database; NCMP, Norwegian Classification of Medical Procedures; CRNM bleeding, clinically relevant non-major bleeding; NSAID, non-steroidal anti-inflammatory drug;

Supplementary table S2; ICD-codes used to calculate risk scores

	CHADS2-VASC	
Point	**Condition**	**Definition**
1	Heart Failure	use definition from baseline covariates (Table 1)
1	Hypertension	use definition from baseline covariates (Table 1)
1	Diabetes mellitus	use definition from baseline covariates (Table 1)
2	Stroke, TIA or systemic embolism	use definition from baseline covariates (Table 1)
1	Vascular Disease (myocardial infarction or peripheral arterial disease)	Combined definitions from baseline covariates "Ischaemic Heart Disease" , and "Vascular disease" in table 1.
1	Female gender	
1	Age 65-<75 years	
2	Age≥ 75 years	
	HAS-BLED	
Point	Condition	**Definition**
1	Hypertension	Use definition for "Hypertension" from baseline comorbidities
1	Abnormal kidney function	Use definition for "Chronic kidney disease" from baseline comorbidities
1	Abnormal liver function:	Use definition for "Liver disease" from baseline comorbidities
1	Stroke, TIA	use definition "History of stroke" from baseline comorbidities
1	Any bleeding other than haemorrhagic stroke	Use definition of Major and CRNM bleeding from baseline comorbidities, excluding codes for haemorrhagic stroke I60, I61, I690-I692
N/A	Labile INR	Not available
1	Age≥ 65 years	1 point for age 65 years or older
1	Alcohol/ Drug Therapy	Use definition of "Alcoholism" , "Use of NSAIDs last 12 months" and "Use of antiplatelet drugs last 12 months, from baseline comorbidities.

Values are numbers (percent) unless otherwise specified. TIA, transient ischaemic attack; NSAIDs, non-steroidal inti-inflammatory drugs; INR, International Normalised Ratio; CHA2DS2-VaSc, congestive heart failure (or left ventricular systolic dysfunction), hypertension, age ≥ 75 years, diabetes mellitus, prior stroke or transient ischaemic attack or systemic embolism, vascular disease, age ≥ 65 years, sex category; HAS-BLED, hypertension, abnormal renal function/ abnormal liver function, prior stroke, prior major bleeding, labile international normalised ratio (INR), elderly age ≥ 65 years, prior alcohol or drug abuse / use of medications that predispose to bleeding (antiplatelet agents, NSAIDs).