

Par#	Parameter	StorageAPI	Logic	Definition	ICD10	ATC code
B01	Years since first cardiovascular event	yearsSinceFirstDiagnosis	Calculation	If subject has condition cardiovascular disease, number of years since first diagnosis. Calculation by current date and date of diagnosis.		
B02	Coronary artery disease	hasCoronaryArteryDisease	Earliest entry	History of acute coronary syndrome, myocardial infarction or coronary revascularization	I20-I25	
B03	Cerebrovascular disease	hasCerebrovascularDisease	Earliest entry	History of TIA, cerebral infarction, amaurosis fugax, retinal infarction or carotid surgery	I60-69; G45	
B04	Aortic Aneurysm	hasAorticAneurysm	Earliest entry	History/presence of a supra- or infrarenal aneurysm of the aorta >3 cm or previous aortic repair	I71.3-I71.9	
B05	Peripheral artery disease	hasPeripheralArteryDisease	Earliest entry	History/presence of intermittent claudication, diminished ankle-brachial index or peripheral artery intervention (e.g. angioplasty, stenting, atherectomy, bypass graft or amputation) SMART: Symptomatic and documented obstruction of distal arteries of the leg or surgery of the leg (percutaneous transluminal angioplasty, bypass or amputation)	I70.0-I70.8	
B06	Atrial fibrillation	hasAtrialFibrillation	Earliest entry	Paroxysmal, persistent or permanent atrial fibrillation / AF confirmed by inclusion ECG	I48	
B07	Heart failure	hasHeartFailure	Earliest entry	Presence of signs and symptoms of either right or left ventricular failure or both	I50	
B09	History of vascular disease	hasCardiovascularDisease	Earliest entry	Find if any is true of: Coronary artery disease, Cerebrovascular disease, Aortic Aneurysm, Peripheral artery disease, Atrial fibrillation, Heart failure	I20-I25; I60-69; G45; I71.3-71.9; I70.0-70.8	

C01	Diabetes mellitus	hasDiabetesDiagnosis	Earliest entry	Referral diagnosis of DM, self-reported DM, a known history of DM or a fasting plasma glucose ≥ 7 mmol/l/126 mg/dL, treated or not	E10-13 (any DM)	
C02	Diabetes mellitus type 2	hasDiabetes2Diagnosis	Earliest entry	Referral diagnosis of DM, self-reported DM type 2, a known history of DM or a fasting plasma glucose ≥ 7 mmol/l/126 mg/dL, treated or not	E11 (type 2 only)	
C03	Retinopathy	hasRetinopathy	Any entry		E08.3; E10.3, E11.3; E13.3	
C06	Age at diabetes type 2 diagnosis	ageOfDiabetes2Diagnosis	Calculation	Calculation from age and date of diagnosis of diabetes type 2		

VTE predict						
V01	Pulmonary embolism		Earliest entry	Symptomatic and objectively confirmed; regardless of coexistence of a deep venous thrombosis	I26	
V02	Provoked by estrogen therapy		All entries	Use of oral contraceptives or hormone replacement therapy in the 90 days before the index event		G03C; G03E; G03F
V03	Provoked by surgery, trauma or immobilization		All entries	Surgery, trauma or immobilization in the 90 days before the index event	-	
V04	History of venous thromboembolism		All entries	Deep venous thrombosis or pulmonary embolism prior to the index event or during the initial anticoagulant treatment for the current venous thromboembolism	I82	
V05	History of cancer		All entries	Any cancer diagnosis in medical history not meeting the criteria for active cancer, excluding non-melanoma skin cancer. Active cancer is defined as cancer diagnosed, receiving treatment or metastasized within 6 months prior to the index event. VTE-PREDICT does not apply to patients with active cancer.	C00-D09	
V06	History of bleeding		Earliest entry	Any clinically relevant bleeding in medical history or during the initial anticoagulant treatment for the current venous thromboembolism	D62; D683; D698; D699; H113; H210; H313; H356; H431; H450; H922; I230; I312; I600-I616; I618-I621; I629; I850; I983; J942; K226; K250; K252; K254; K256; K260; K262; K264; K266; K270; K272; K274; K276; K280; K282; K284; K286; K290; K625; K661; K762; K920-K922; M250; N020-N029; N421; N920-N924; N930; N938; N939; N950; R040-R042; R048; R049; R31; R58; S064-S066; S260; S271; T792	

V07	History of stroke		Earliest entry	Ischemic or hemorrhagic stroke or transient ischemic attack Use: cerebrovascular disease	I60-69; G45	
HF						
H02	Prior hospitalization for heart failure		All entries	History of a hospitalization for heart failure.	I50.23; I50.33; I50.43; I50.813	
H03	Extracardiac vascular disease		Earliest entry	peripheral artery disease or cerebrovascular disease	I60-69; G45; I70.0-I70.8	

Par#	Parameter	StorageAPI	Logic	Unit	LOINC
C04	HbA1c	hba1c	Most recent entry	mmol/mol	41995-2
E03	Total cholesterol	cholesterol - total	Most recent entry	mmol/L	14647-2
E04	HDL cholesterol	cholesterol - hdl	Most recent entry	mmol/L	14646-4
E05	LDL cholesterol	cholesterol - ldl	Most recent entry	mmol/L	22748-8
E07	Creatinin	creatinin	Most recent entry	µmol/L	14682-9
F01	eGFR	egfr	Most recent entry	ml/min/1.73m ²	62238-1
F02	Albuminuria - No albuminuria - Moderately increased - Seriously increased	albuminuria	Most recent entry	mg/mmol	-
G01	High sensitivity CRP	crp	Most recent entry	mg/L	30522-7
VTE predict					
V10	Hemoglobin		Most recent entry	mmol/L	59260-0
HF					
H05	NT-proBNP		Most recent entry	pg/mL	33762-6
H06	Total bilirubin		Most recent entry	µmol/L	14631-6
H07	Uric acid		Most recent entry	µmol/L	14933-6
H10	Potassium		Most recent entry	mmol/L	2823-3
H11	Sodium		Most recent entry	mmol/L	2951-2

Par#	Parameter	StorageAPI	Logic	ICD-10	Definition
A00	Date of Birth		Any entry		
A01	Gender	sex	Earliest entry		
A02	Age	age	Calculation		Calculation from date of birth
A05	Geographic region	riskRegion	Set on standard value		
A06	Ethnicity		Any entry		
A04	Smoking	isSmoking	Most recent entry		Current vs other (patient's response to question "do you smoke?"); ≥5 cigarettes/day on average within the last month before entry into the Registry/ Current vs non vs ex-smoker
D01	Systolic blood pressure	sbp	Most recent entry		
D03	BMI	bmi - value	Most recent entry		
D04	Height	bmi - height	Most recent entry		
D05	Weight	bmi - weight	Most recent entry		
J11	Step count (number of steps/day)	stepCount	Most recent entry		
J12	Mediterranean diet	usingMediterraneanDiet	Most recent entry		
VTE predict					
HF					
H04	Left ventricular ejection fraction		Most recent entry		
H08	Left bundle branch block		Any entry?	I44.7	
H09	Heart rate		Most recent entry		
H01	NYHA class		Most recent entry		

Par#	Parameter	StorageAPI	Logic	Definition	ATC codes	afpraak
C05	Insulin therapy	usingInsulin	Most recent entry		A10A (insulines and analogues)	
J01	Antithrombotic treatment	antithrombotic - using	Most recent entry	Aspirin or ascal or another equivalent, aspirin and a P2Y12 inhibitor, aspirin and a low dose direct oral anticoagulants	B01 (antithrombotic agents)	
J01	Aspirin/equivalent	antithrombotic - type	Most recent entry		B01 (antithrombotic agents)	
J01	Dual antiplatelet	antithrombotic - type	Most recent entry		B01AC01 t/m B01AC11; B01AC13; B01AC15 t/m B01AC19; B01AC21 t/m B01AC27; B01AC30; B01AC56	2 of meer van deze ATC-codes
J01	Aspirin+ld DOAC	antithrombotic - type	Most recent entry		B01AC (platelet aggregation inhibitors) + een van: B01AF01 t/m B01AF04 of een van: B01AE01 t/m B01AE07	
J02	Statin treatment	statin	Most recent entry	Defined by statin type and statin dose		
J03	Statin type - Atorvastatin	statin	Most recent entry		C10AA05	Bij combinatiepreparaten: Deze ATC codes moeten meegenomen worden, en aan ORTEC kant leiden tot aanvinken van 2 variabelen.
J03	Statin type - Fluvastatin	statin	Most recent entry		C10AA04	
J03	Statin type - Lovastatin	statin	Most recent entry		C10AA02	
J03	Statin type - Pravastatin	statin	Most recent entry		C10AA03	
J03	Statin type - Rosuvastatin	statin	Most recent entry		C10AA07	
J03	Statin type - Simvastatin	statin	Most recent entry		C10AA01	
J04	Ezetimibe	usingEze	Most recent entry		C10AX09	
J05	PCSK9-inhibitor - Alirocumab or evolocumab	pcsk9	Most recent entry		C10AX13; C10AX14	
J05	PCSK9-inhibitor - Inclisiran	pcsk9	Most recent entry		C10AX16	
J06	SGLT2-inhibitor	usingSglt2	Most recent entry		A10BK	
J07	GLP1-receptor agonist	usingGlp1	Most recent entry		A10BJ	
J08	Colchicine	usingColchicine	Most recent entry		M04AC01	
J09	Bempedoic acid	usingBemp	Most recent entry		C10AX15	
J10	Icosapent ethyl	usingEPA	Most recent entry		C10AX06	
VTE predict						

V08	Use of NSAIDs		Most recent entry			
V09	Use of antiplatelet therapy		Most recent entry		B01 (antithrombotic agents)	

HF					
H13	ACE inhibitor or angiotensin receptor blocker		Most recent entry		C09A; C09AA; C09B; C09BA; C09BB; C09BX; C09C; C09CA; C09DA; C09DB; C09DX01-C09DX03; C09DX05-C09DX07
H14	Beta-blocker		Most recent entry		C07; C07A; C07AA; C07AB; C07AG; C07B; C07BA; C07BB; C07BG; C07C; C07CA; C07CB; C07CG; C07D; C07DA; C07DB; C07E; C07EA; C07EB; C07F; C07FB; C07FX
H15	Angiotensin receptor-neprilysin inhibitor		Most recent entry		C09DX04
H16	Mineralocorticoid receptor antagonist		Most recent entry		C03DA
H17	Digoxin		Most recent entry		C01AA
H18	Ivabradine		Most recent entry		C01EB17; C07FX05; C07FX06
H19	Vericiguat		Most recent entry		C01DX22
H20	Omecamtiv mecarbil		Most recent entry		Not available

Document history

Version	Date	Author	Changes
0.1		Marije vMelle	Initial version
1.0	24/06/2022	Menno Brandjes	Revisions
1.1	11/07/2022	Marije vMelle	Added version control
1.2	12/07/2022	Menno Brandjes	Layout
2.0	09/01/2024	Inge Verkouter	Additions for guideline updates
3.0	09/04/2025	Inge Verkouter	Clean up document, link to Storage API

Document Approval

Version	Date	Author	
1.2	12/07/2022	Menno Brandjes	Synergy, General - Approval - 14.411.547
3.0	16/04/2025	Menno Brandjes	Synergy, General - Approval - 16.929.220