

Online supplementary table S1. Table showing how the Hospital Discharge Register and the Registers of the Social Insurance Institution of Finland were used to identify different comorbid diseases. Positive entry in any of the registers sufficed for registration of that comorbidity.

	Data source		
	Hospital Discharge Register	Registers of the Social Insurance Institution of Finland	
		Drug Prescription Register	Drug Reimbursement Register
Description of data sources			
Data registered	Treatment episodes in hospitals and health care centre wards (in-patient care) with specified diagnoses.	Purchases of drugs prescribed by a physician	Reasons for reimbursements issued for treatment for severe chronic diseases
Classification	World Health Organization International Classification of Diseases (ICD), 9 th or 10 th revision	World Health Organization Anatomical Therapeutic Classification for Drugs	
Disease group			
Cardiovascular disease			
Coronary heart disease	Ischemic heart diseases (ICD-10: I20*-I25*; ICD-9: 410*-414*)	(Not used.)	Chronic coronary heart disease.
Atrial fibrillation	Atrial fibrillation (ICD-10: I48; ICD-9: 4273*)	Warfarin (B01AA03)	Chronic heart arrhythmias.
Heart failure	Heart failure (ICD-10: I50*; ICD-9: 428*)	(Not used.)	Chronic heart failure.
Hypertension	Hypertension (ICD-10: I10*-I15*; ICD-9: 40*)	Antihypertensives (C03*, C07* (without concomitant diagnosis of coronary heart disease of atrial fibrillation), C09A*, C09B*, C09C*, C09D*, C08*).	(Severe) hypertension.
Diabetes	Diabetes (ICD-10: E10*-E14*; ICD-9: 250*)	Drugs used in diabetes (A10A*, A10B*).	Diabetes.

Cancer	Cancer. (ICD-10: C00*-C99*, D00*-D09*; ICD-9: 140*-208*)	Antineoplastic agents (L01* except methothrexate).	Breast cancer, prostate cancer, leukaemia, gynaecologic cancer, other malignancies, or for use of certain specific expensive medications used in the treatment of cancer.
Pulmonary diseases	Chronic obstructive pulmonary disease or asthma. (ICD-10: J44*-J46*; ICD-9: 4912*, 496*, 493*)	Drugs for obstructive airway diseases (R03*).	Asthma, chronic obstructive pulmonary disease or other severe obstructive airway diseases.
Depression	Depression. (ICD-10: F32*-F34*; ICD-9: 2960*, 2961*,2069*)	Antidepressants (N06A*).	(Not used.)
Psychotic disorders	Schizophrenia, schizotypal and delusional disorders, or manic episode. (ICD-10: F20-F31; ICD-9: 295*-298*, except 2960* and 2961*)	Antipsychotics (N05A except prochlorperazine and dixyrazine).	Severe psychotic disease.
Neurodegenerative diseases	Dementia (disorders) or Parkinson's disease. (ICD-10: F00*-F03*, G20*, G30*; ICD-9: 290*, 3310*, 332*)	Antidementia drugs or dopaminergic agents (N06D*, N04B*).	Alzheimer's disease, Parkinson's disease.
