

SUPPLEMENTAL MATERIAL

Table S1. Diagnoses Used to Define the Cohorts, Comorbidities, and Outcomes

Disease	Criteria of Diagnosis	
Study Cohorts		
Atrial fibrillation	Defined from diagnosis	ICD9-CM: 42731
Atrial flutter	Defined from diagnosis	ICD9-CM: 42732
Excluding Diseases		
Hyperthyroidism	Defined from diagnosis plus treatment	ICD9-CM: 242* and any anti-thyroid drugs
Rheumatic heart disease	Defined from diagnosis	ICD9-CM: 394.0, 394.1, 394.2, 395*, 398.9*
Sepsis	Defined from diagnosis during hospitalization	ICD9-CM: 038*, 790.7
Comorbidities		
Hypertension	Defined from diagnosis plus treatment	401*, 402*, 403*, 404*, 405* and any anti-hypertension drugs

Diabetes mellitus	Defined from diagnosis plus treatment	250* and any oral hypoglycemic drugs and insulin
Dyslipidemia	Defined from diagnosis plus treatment	272* and any lipid-lowering agents
Gout	Defined from diagnosis	274*
Chronic obstructive pulmonary disease	Defined from diagnosis	491*, 492*, 496*
Peripheral arterial disease	Defined from diagnosis	440.0*, 440.2*, 440.3*, 440.8*, 440.9*, 443*, 444.0*, 444.22, 444.8*, 447.8*, and 447.9*
Liver disease	Defined from diagnosis	070*, 456.0–456.2, 570*, 571*, 572.2–572.8, 573*, V42.7
Ischemic heart disease	Defined from diagnosis	410*~414*
Chronic kidney disease	Defined from diagnosis	580*~589*, 403*~404*

016.0, 095.4, 236.9 250.4, 274.1, 442.1, ,
447.3, ,440.1, 572.4, 642.1, 646.2 753.1
283.11, 403.01,and 404.02, 446.21

Dialysis Defined from diagnosis in catastrophic registry 585*
data

Malignancy Defined from diagnosis in catastrophic registry 140*~208*
data

Heart failure Defined from diagnosis 428*

History of Events

Myocardial infarction Defined from diagnosis in hospitalization 410*, 412*

Outcomes

Ischemic stroke Defined from primary diagnosis of 433*~437*

	hospitalization	
Myocardial infarction	Defined from primary diagnosis of	410*, 412*
	hospitalization	
Heart failure	Defined from primary diagnosis of	428*
	hospitalization	

Table S2. Anatomical Therapeutic Chemical (ATC) Codes of the Study Medications

Medication*	ATC code	Medication*	ATC Code
Angiotensin converting enzyme inhibitors/angiotensin II receptor blockers	C09	Dipeptidyl peptidase 4 inhibitors	A10BH
β -blockers	C07	Sulfonylurea	A10BB
Calcium channel blockers	C08	Thiazolidinedione	A10BG02, A10BG03
Diuretics	C03	Insulin	A10A
Statins	C10AA	Digoxin	C01AA05
Antiplatelet agents	B01AC	Antiarrhythmic agents	
Warfarin	B01AA	Class IA	C01BA
Alpha-glucosidase inhibitors	A10BF	Class IB	C01BB
Biguanides	A10BA	Class IC	C01BC
Glinides	A10BX02, A10BX03	Class III	C01BD

*The usage of these medications was defined as being prescribed with the medication for at least 3 months.