

SUPPLEMENTARY MATERIALS

Concomitant Use of Sodium-Glucose Cotransporter 2 Inhibitors and Overactive Bladder Drugs and the Risk of Urinary Tract Infection: A Population-Based Cohort Study

Supplementary Legends

Supplementary material 1. Study design

Supplementary material 2. Definition of outcomes

Supplementary material 3. Definitions of covariates

Supplementary material 4. Flow chart of concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs

Supplementary material 5. Baseline characteristic of the concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs before and after propensity score fine weighting

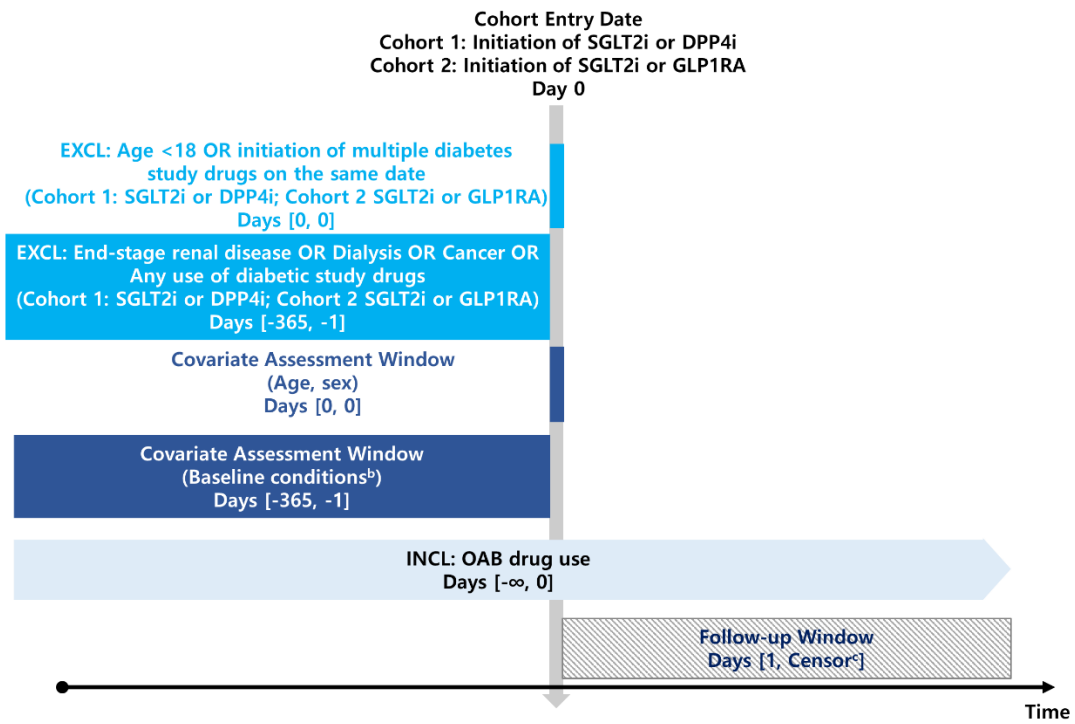
Supplementary material 6. Reason for censoring of the concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs

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Supplementary material 1. Study design



Supplementary material 2. Definition of outcomes*

Urinary tract infections	Pyelonephritis	N10	Acute tubulo-interstitial nephritis
		N11	Chronic tubulo-interstitial nephritis
		N12	Tubulo-interstitial nephritis, not specified as acute or chronic
		N136	Pyonephrosis
		N151	Renal and perinephric abscess
		N160	Renal tubulo-interstitial disorders in infectious and parasitic diseases classified elsewhere
	Cystitis	N30	Cystitis
	Ureteritis	N34	Urethritis and urethral syndrome
		N370	Urethritis in diseases classified elsewhere
	N/A	N390	Urinary tract infection, site not specified

*Since the NHIS database provides information on which diagnosis was most accountable for the visit or hospitalization (primary) and differentiates between secondary and other, outcomes were defined as those occurring in primary and secondary diagnosis positions only.

Supplementary material 3. Definitions of covariates *

Covariates	Comment (if applicable)*
Demographic	
Age	Defined at cohort entry date
Sex	Male or Female
Comorbidities	ICD-10 codes
Atrial fibrillation	I48.x Atrial fibrillation and flutter
Cerebrovascular disease	I60.x Subarachnoid hemorrhage
	I61.x Intracerebral hemorrhage
	I62.x Other nontraumatic intracranial hemorrhage
	I63.x Cerebral infarction
	I64.x Stroke, not specified as hemorrhage or infarction
	I65.x Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction
	I66.x Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction
	I67.x Other cerebrovascular diseases
	I68.x Cerebrovascular disorders in diseases classified elsewhere
	I69.x Sequelae of cerebrovascular disease
	G45.x Transient cerebral ischemic attacks and related syndromes
	G46.x Vascular syndromes of brain in cerebrovascular diseases
Coronary artery disease	I20.x Angina pectoris
	I21.x Acute myocardial infarction
	I22.x Subsequent myocardial infarction
Peripheral arterial disease	I70.x Atherosclerosis
	I73.9 Peripheral arterial disease
	I74.3 Embolism and thrombosis of arteries
	I77.1 Stricture of artery
	I79.2 Peripheral arterial disease
Dementia	F01.x Vascular dementia
	F02.x Dementia in other diseases classified elsewhere
	F03.x Unspecified dementia
	G30.x Alzheimer's disease
	G31.0 Frontotemporal dementia
	G31.82 Leigh's disease
Depression	F32 Depressive episode
	F33 Recurrent depressive disorder
	F34.1 Persistent mood disorders
Dyslipidemia	E78.x Disorders of lipoprotein metabolism and other lipidemia
Heart failure	I50.x Heart failure
Hypertension	I10.x Essential (primary) hypertension

	I11.x Hypertensive heart disease
	I12.x Hypertensive chronic kidney disease
	I13.x Hypertensive heart and chronic kidney disease
	I15.x Secondary hypertension
Hyperthyroidism	E05.x Thyrotoxicosis[hyperthyroidism]
Hypothyroidism	E03.x Other hypothyroidism
Liver cirrhosis	K702 Alcoholic fibrosis and sclerosis of liver
	K703 Alcoholic cirrhosis of liver
	K704 Alcoholic hepatic failure
	K717 Toxic liver disease with fibrosis and cirrhosis of liver
	K74.x Fibrosis and cirrhosis of liver
	K761 Chronic passive congestion of liver
Chronic kidney disease	N18.x Chronic kidney disease
	N19.x Unspecified kidney failure
Chronic respiratory disease	J41.x Simple and mucopurulent chronic bronchitis
	J42.x Unspecified chronic bronchitis
	J43.x Emphysema
	J44.x Other chronic obstructive pulmonary disease
	J45.x Asthma
	J46.x Status asthmaticus
	J47.x Bronchiectasis
	J84.x Other interstitial pulmonary diseases
Diabetic complications	ICD-10 codes
Diabetic nephropathy	E102 Type 1 diabetes mellitus with kidney complications
	E112 Type 2 diabetes mellitus with kidney complications
	E132 Other specified diabetes mellitus with kidney complications
Diabetic neuropathy	E104 Type 1 diabetes mellitus with neurological complications
	E114 Type 2 diabetes mellitus with neurological complications
	E134 Other specified diabetes mellitus with neurological complications
	G53 Cranial nerve disorders in diseases classified elsewhere
	G56 Mononeuropathies of upper limb
	G57 Mononeuropathies of lower limb
	G58 Other mononeuropathies
	G59 Mononeuropathy in diseases classified elsewhere
	G629 Polyneuropathy, unspecified
	G64 Other disorders of peripheral nervous system

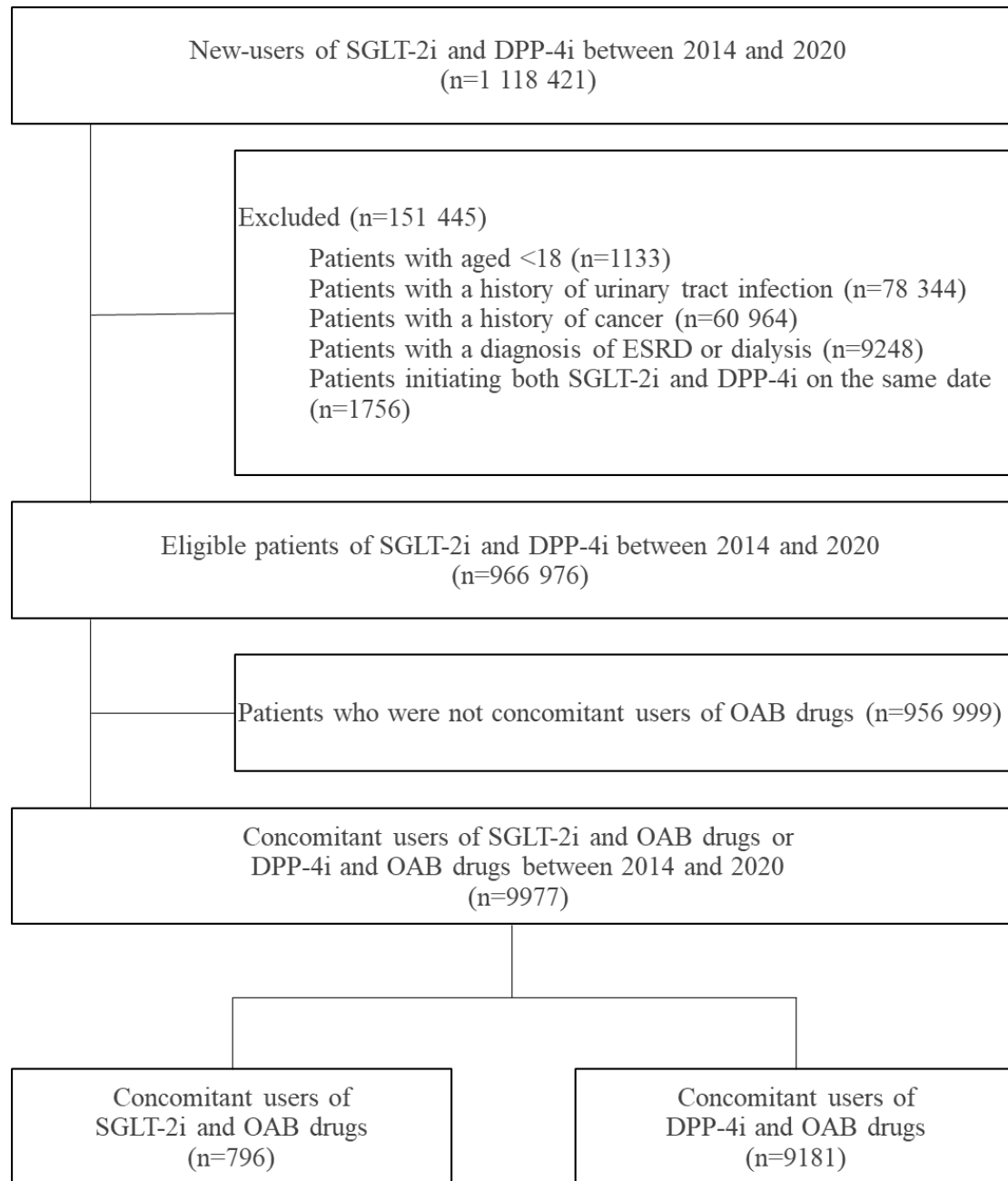
	G900 Idiopathic peripheral autonomic neuropathy
	G908 Other disorders of autonomic nervous system
	G990 Autonomic neuropathy in diseases classified elsewhere
Diabetic retinopathy	E103 Type 1 diabetes mellitus with ophthalmic complications
	E113 Type 2 diabetes mellitus with ophthalmic complications
	E133 Other specified diabetes mellitus with ophthalmic complications
	H33 Retinal detachments and breaks
	H34 Retinal vascular occlusions
	H35 Other retinal disorders
	H36 Retinal disorders in diseases classified elsewhere
	H54 Blindness and low vision
Hypoglycemia	E160 Other disorders of pancreatic internal secretion
	E161 Other hypoglycaemia
	E162 Hypoglycaemia, unspecified
	E1163 Type 2 diabetes mellitus, with hypoglycemia
	E1363 Other specified diabetes mellitus, with hypoglycemia
	E1463 Unspecified diabetes mellitus, with hypoglycemia
Comedication use	ATC codes
Acetaminophen	N02BE01, N02BE05, N02BE51, N02BE71, N02AJ13
α -glucosidase inhibitors	A10BF
Angiotensin II receptor blockers	C09C, C09D
Angiotensin-converting enzyme inhibitors	C09A, C09B
β -blockers	C07
Calcium channel blockers	C08, C07FB, C09BB, C09DB
Diuretics	C03A, C03DA, C07B, C07D, C03C, C03E, C03X, C07C, C08G
Insulin	A10A
Meglitinides	A10BX02, A10BX03, A10BX08
Metformin	A10BA02
Nonsteroidal anti-inflammatory drugs	M01A
Oral anticoagulants	B01AA (excl. B01AA03), B01AB, B01AD, B10AE, B10AF, B01AX
Opioids	N02A
antiplatelets	B01AF
Systemic corticosteroids	A07EA
Systemic antibiotics	J01

Sulfonylureas	A10BB
Statins	C10AA
Thiazolidinediones	A10BG
No. of different classes of non-antidiabetic medications	Measured by drug class; assessed in the year prior to and including study cohort entry (categorized as 0-1, 2-5, or ≥ 6)
Healthcare use	
Number of inpatient hospitalizations	In a year prior to and including cohort entry (categorized as 0, 1-2, or ≥ 3)
Number of physician visits	Included in- and outpatient visits in a year prior to cohort entry (categorized as 0-2, 3-5, or ≥ 6)

Abbreviations: ATC, Anatomical Therapeutic Chemical classification code; ICD-10, International Classification of Diseases, 10th revision.

*Unless otherwise specified, comorbidities ascertained from hospitalization or physician claims data in the three years prior to study cohort entry. Comedications and healthcare use assessed in the year prior to study cohort entry. Comorbidities were measured using ICD-10 codes, and procedures were defined using domestic codes.

Supplementary material 4. Flow chart of concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs



Abbreviations: ESRD, end-stage renal disease; DPP-4i, dipeptidyl peptidase 4 inhibitors; OAB, overactive bladder; SGLT-2i, sodium glucose cotransporter 2 inhibitors

Supplementary material 5. Baseline characteristic of the concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs before and after propensity score fine weighting

Baseline characteristics	Before weighting			After propensity weighting		
	SGLT-2i (n=798)	DPP-4i (n=9489)	aSD	SGLT-2i (n=796)	DPP-4i (n=9181)	aSD
Age (years; mean, SD)	61 (12.9)	67.8 (12.6)	0.141	61 (12.9)	61 (14.2)	0.002
Female	235 (29.4)	3126 (33.0)	0.076	235 (29.5)	2715 (29.6)	0.001
OAB drugs duration (days); mean (SD)	290.1 (604.9)	326.9 (627.1)	0.060	290.1 (605.4)	288.6 (611.7)	0.002
Calendar year						
2014	16 (2.0)	427 (4.5)	0.141	16 (2.0)	185 (2.0)	0.000
2015	50 (6.3)	1505 (15.9)	0.310	49 (6.2)	564 (6.1)	0.000
2016	65 (8.1)	1529 (16.1)	0.246	65 (8.2)	740 (8.1)	0.004
2017	148 (18.5)	1494 (15.7)	0.074	148 (18.6)	1698 (18.5)	0.003
2018	140 (17.5)	1523 (16.1)	0.040	140 (17.6)	1598 (17.4)	0.005
2019	183 (22.9)	1522 (16.0)	0.175	183 (23.0)	2137 (23.3)	0.007
2020	196 (24.6)	1489 (15.7)	0.223	195 (24.5)	2259 (24.6)	0.003
Level of antidiabetic treatments[§]						
1	533 (66.8)	5685 (59.9)	0.143	533 (67.0)	6198 (67.5)	0.012
2	169 (21.2)	2400 (25.3)	0.098	168 (21.1)	1929 (21.0)	0.002
3	96 (12.0)	1404 (14.8)	0.081	95 (11.9)	1055 (11.5)	0.014
Antidiabetic drugs use[‡]						
Insulin	96 (12.0)	1404 (14.8)	0.081	95 (11.9)	1055 (11.5)	0.014
α -glucosidase inhibitors	26 (3.3)	450 (4.7)	0.076	26 (3.3)	304 (3.3)	0.002
GLP-1RA	3 (0.4)	8 (0.1)	0.061	3 (0.4)	34 (0.4)	0.001
Meglitinides	4 (0.5)	104 (1.1)	0.067	4 (0.5)	46 (0.5)	0.001
Metformin	391 (49)	5362 (56.5)	0.151	389 (48.9)	4492 (48.9)	0.001
Sulfonylureas	207 (25.9)	3189 (33.6)	0.168	207 (26.0)	2344 (25.5)	0.011
Thiazolidinediones	60 (7.5)	535 (5.6)	0.076	59 (7.4)	651 (7.1)	0.012
Diabetes related conditions; n (%)						
Diabetic nephropathy	39 (4.9)	343 (3.6)	0.063	39 (4.9)	429 (4.7)	0.011
Diabetic neuropathy	79 (9.9)	1354 (14.3)	0.134	78 (9.8)	886 (9.6)	0.005
Diabetic retinopathy	138 (17.3)	1692 (17.8)	0.014	137 (17.2)	1601 (17.4)	0.006
Hypoglycaemia	4 (0.5)	104 (1.1)	0.067	4 (0.5)	43 (0.5)	0.005
Comorbidities; n (%)						
Dyslipidemia	304 (38.1)	3148 (33.2)	0.103	303 (38.1)	3475 (37.9)	0.004
Hypertension	410 (51.4)	5188 (54.7)	0.066	408 (51.3)	4691 (51.1)	0.003
Atrial fibrillation	22 (2.8)	241 (2.5)	0.014	22 (2.8)	256 (2.8)	0.001
Heart failure	58 (7.3)	418 (4.4)	0.122	57 (7.2)	637 (6.9)	0.009
Coronary artery disease	54 (6.8)	315 (3.3)	0.158	53 (6.7)	580 (6.3)	0.014
Cerebrovascular disease	57 (7.1)	1224 (12.9)	0.193	57 (7.2)	636 (6.9)	0.009
Peripheral artery disease	71 (8.9)	787 (8.3)	0.022	71 (8.9)	819 (8.9)	0.000
Liver cirrhosis	4 (0.5)	125 (1.3)	0.086	4 (0.5)	42 (0.5)	0.006
Chronic kidney disease	11 (1.4)	238 (2.5)	0.082	11 (1.4)	119 (1.3)	0.007
Chronic respiratory disease	114 (14.3)	1433 (15.1)	0.023	113 (14.2)	1310 (14.3)	0.002
Dementia	14 (1.8)	372 (3.9)	0.131	14 (1.8)	155 (1.7)	0.005
Depression	68 (8.5)	660 (7.0)	0.059	67 (8.4)	760 (8.3)	0.005
Hypothyroidism	20 (2.5)	194 (2.0)	0.031	20 (2.5)	229 (2.5)	0.001
Hyperthyroidism	11 (1.4)	75 (0.8)	0.057	11 (1.4)	131 (1.4)	0.004
Comedications; n (%)						
Acetaminophen	496 (62.2)	6153 (64.8)	0.056	495 (62.2)	5668 (61.7)	0.009
ACE inhibitors	28 (3.5)	260 (2.7)	0.044	28 (3.5)	300 (3.3)	0.014
Antiplatelets	312 (39.1)	3856 (40.6)	0.031	311 (39.1)	3552 (38.7)	0.008
ARB	364 (45.6)	4562 (48.1)	0.049	362 (45.5)	4145 (45.1)	0.007
β -blockers	183 (22.9)	1954 (20.6)	0.057	182 (22.9)	2060 (22.4)	0.010

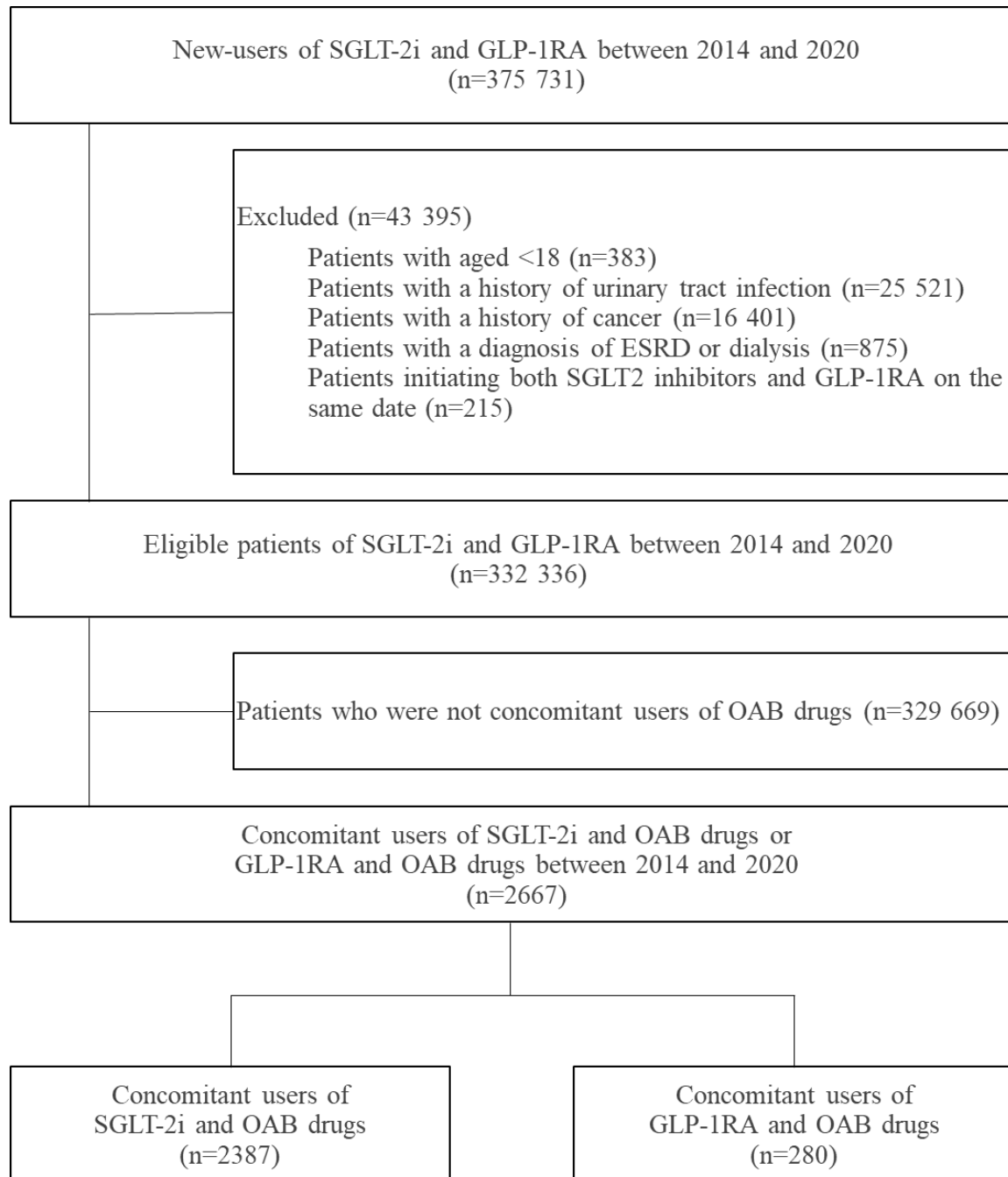
CCB	350 (43.9)	4341 (45.7)	0.038	348 (43.7)	3997 (43.5)	0.004
Diuretics (loop)	73 (9.1)	987 (10.4)	0.042	72 (9.0)	800 (8.7)	0.012
Diuretics (other)	194 (24.3)	2369 (25.0)	0.015	192 (24.1)	2214 (24.1)	0.000
NSAIDS	552 (69.2)	6308 (66.5)	0.058	551 (69.2)	6320 (68.8)	0.008
Oral anticoagulants	22 (2.8)	282 (3.0)	0.013	22 (2.8)	244 (2.7)	0.007
Opioids	97 (12.2)	1178 (12.4)	0.008	96 (12.1)	1087 (11.8)	0.007
Systemic antibiotics	589 (73.8)	6749 (71.1)	0.060	588 (73.9)	6804 (74.1)	0.005
Systemic corticosteroids	437 (54.8)	5035 (53.1)	0.034	436 (54.8)	4985 (54.3)	0.009
Statin	431 (54.0)	4612 (48.6)	0.108	430 (54.0)	4911 (53.5)	0.011
Charlson Comorbidity Index; n (%)						
0	226 (28.3)	2176 (22.9)	0.124	226 (28.4)	2643 (28.8)	0.002
1-2	301 (37.7)	3652 (38.5)	0.016	301 (37.8)	3486 (38.0)	0.003
≥3	271 (34.0)	3661 (38.6)	0.096	269 (33.8)	3052 (33.2)	0.012
Healthcare use[‡]						
Inpatient hospitalizations						
0	577 (72.3)	6409 (67.5)	0.104	577 (72.5)	6716 (73.2)	0.015
1-2	189 (23.7)	2678 (28.2)	0.104	188 (23.6)	2113 (23)	0.014
≥3	32 (4.0)	402 (4.2)	0.011	31 (3.9)	352 (3.8)	0.003
Number of physician visits						
0-2	21 (2.6)	376 (4.0)	0.075	21 (2.6)	243 (2.7)	0.001
3-5	54 (6.8)	405 (4.3)	0.110	54 (6.8)	644 (7.0)	0.009
≥6	723 (90.6)	8708 (91.8)	0.041	721 (90.6)	8293 (90.3)	0.008

Abbreviations: aSD, absolute standard deviation; ACE, angiotensin converting enzyme; ARBs, angiotensin receptor blockers; CCB, calcium channel blockers; DPP-4i, dipeptidyl peptidase 4 inhibitors; GLP-1RA, glucagon like peptide 1 receptor agonists; NSAIDs, nonsteroidal anti-inflammatory drugs; OAB, overactive bladder; SGLT2, sodium glucose cotransporter 2

Supplementary material 6. Reason for censoring of the concomitant users of SGLT-2i with OAB drugs versus DPP-4i with OAB drugs

Reason for censoring	N (%)
Outcome occurrence	1,424 (5.2)
Switch to other glucose-lowering drugs	455 (1.7)
Discontinuation of cohort entry drugs	1,439 (5.2)
Death	311 (1.1)
End of study periods	1,133 (4.1)
Discontinuation of overactive bladder drugs	22,825 (82.7)

Supplementary material 7. Flow chart of concomitant users of SGLT-2i with OAB drugs versus GLP-1RA with OAB drugs



Abbreviations: ESRD, end-stage renal disease; GLP-1RA, glucagon like peptide 1 receptor agonists; OAB, overactive bladder; SGLT-2, sodium glucose cotransporter 2 inhibitors

Supplementary material 8. Baseline characteristic of the concomitant users of SGLT-2i with OAB drugs versus GLP-1RA with OAB drugs before and after propensity score fine weighting

Baseline characteristics	Before weighting			After propensity weighting		
	SGLT-2i (n=2923)	GLP-1RA (n=282)	aSD	SGLT-2i (n=2387)	GLP-1RA (n=280)	aSD
Age (years; mean, SD)	64.7 (11.7)	65.2 (12.3)	0.041	64.6 (11.7)	64.9 (14.1)	0.020
Female	919 (31.5)	102 (36.2)	0.010	762 (31.9)	81 (28.8)	0.069
OAB drugs duration (days); mean (SD)	345.5 (547.9)	398.1 (570.6)	0.094	355.7 (560.3)	360.9 (553.8)	0.009
Calendar year						
2014	65 (2.2)	0 (0.0)	0.213	0 (0.0)	0 (0.0)	n/a
2015	171 (5.9)	2 (0.7)	0.292	99 (4.1)	10 (3.5)	0.032
2016	318 (10.9)	20 (7.1)	0.133	257 (10.8)	32 (11.4)	0.021
2017	474 (16.2)	51 (18.1)	0.050	401 (16.8)	42 (15.1)	0.048
2018	507 (17.3)	76 (27)	0.233	478 (20)	71 (25.3)	0.127
2019	665 (22.8)	75 (26.6)	0.089	564 (23.6)	63 (22.4)	0.029
2020	723 (24.7)	58 (20.6)	0.100	588 (24.6)	62 (22.3)	0.056
Level of antidiabetic treatments[§]						
1	826 (28.3)	42 (14.9)	0.329	464 (19.4)	60 (21.5)	0.051
2	2097 (71.7)	239 (84.8)	0.319	1392 (58.3)	156 (55.6)	0.054
3	0 (0.0)	1 (0.4)	0.084	531 (22.2)	64 (22.9)	0.015
Antidiabetic drugs use[‡]						
Insulin	571 (19.5)	135 (47.9)	0.628	531 (22.2)	64 (22.9)	0.015
α -glucosidase inhibitors	83 (2.8)	13 (4.6)	0.094	72 (3.0)	8 (2.9)	0.007
Meglitinides	20 (0.7)	4 (1.4)	0.072	12 (0.5)	1 (0.4)	0.008
Metformin	2263 (77.4)	223 (79.1)	0.040	1897 (79.5)	214 (76.3)	0.077
Sulfonylureas	1450 (49.6)	191 (67.7)	0.374	1284 (53.8)	158 (56.4)	0.053
Thiazolidinediones	473 (16.2)	64 (22.7)	0.165	421 (17.6)	65 (23.2)	0.137
Dipeptidyl peptidase-4 inhibitor	1780 (60.9)	221 (78.4)	0.387	1569 (65.7)	179 (64.1)	0.035
Diabetes related conditions; n (%)						
Diabetic nephropathy	161 (5.5)	31 (11.0)	0.200	148 (6.2)	14 (5.2)	0.045
Diabetic neuropathy	582 (19.9)	65 (23.0)	0.076	480 (20.1)	55 (19.8)	0.009
Diabetic retinopathy	722 (24.7)	105 (37.2)	0.274	637 (26.7)	62 (22.3)	0.102
Hypoglycaemia	27 (0.9)	7 (2.5)	0.121	26 (1.1)	3 (0.9)	0.015
Comorbidities; n (%)						
Dyslipidemia	1171 (40.1)	123 (43.6)	0.072	970 (40.6)	100 (35.7)	0.102
Hypertension	1634 (55.9)	156 (55.3)	0.012	1329 (55.7)	150 (53.4)	0.045
Atrial fibrillation	89 (3.0)	6 (2.1)	0.058	66 (2.8)	6 (2.0)	0.050
Heart failure	194 (6.6)	23 (8.2)	0.058	155 (6.5)	20 (7.3)	0.030
Coronary artery disease	200 (6.8)	26 (9.2)	0.088	179 (7.5)	16 (5.7)	0.073
Cerebrovascular disease	262 (9)	33 (11.7)	0.090	229 (9.6)	28 (9.9)	0.012
Peripheral artery disease	270 (9.2)	42 (14.9)	0.174	231 (9.7)	21 (7.5)	0.078
Liver cirrhosis	25 (0.9)	4 (1.4)	0.053	21 (0.9)	1 (0.5)	0.051
Chronic kidney disease	76 (2.6)	26 (9.2)	0.284	72 (3.0)	7 (2.6)	0.026
Chronic respiratory disease	464 (15.9)	46 (16.3)	0.012	376 (15.8)	35 (12.6)	0.092
Dementia	85 (2.9)	12 (4.3)	0.073	72 (3)	8 (2.8)	0.013
Depression	255 (8.7)	25 (8.9)	0.005	211 (8.8)	22 (7.9)	0.033
Hypothyroidism	79 (2.7)	8 (2.8)	0.008	62 (2.6)	5 (1.8)	0.053
Hyperthyroidism	22 (0.8)	2 (0.7)	0.005	18 (0.8)	1 (0.5)	0.034
Comedications; n (%)						
Acetaminophen	1958 (67)	187 (66.3)	0.014	1581 (66.2)	191 (68.4)	0.045
ACE inhibitors	111 (3.8)	6 (2.1)	0.099	82 (3.4)	12 (4.4)	0.049
Antiplatelets	1414 (48.4)	165 (58.5)	0.204	1196 (50.1)	139 (49.7)	0.007
ARB	1637 (56)	177 (62.8)	0.138	1362 (57.1)	154 (55)	0.041
CCB	1376 (47.1)	142 (50.4)	0.066	1137 (47.6)	132 (47.2)	0.010
β -blockers	736 (25.2)	81 (28.7)	0.080	609 (25.5)	81 (28.9)	0.075

Diuretics (loop)	364 (12.5)	55 (19.5)	0.193	306 (12.8)	32 (11.4)	0.045
Diuretics (other)	773 (26.4)	79 (28.0)	0.035	624 (26.1)	71 (25.2)	0.021
NSAIDS	2062 (70.5)	202 (71.6)	0.024	1685 (70.6)	198 (70.6)	0.000
Oral anticoagulants	112 (3.8)	7 (2.5)	0.077	81 (3.4)	8 (3.0)	0.021
Opioids	422 (14.4)	47 (16.7)	0.062	350 (14.7)	42 (15.0)	0.009
Systemic antibiotics	2177 (74.5)	205 (72.7)	0.040	1757 (73.6)	214 (76.3)	0.062
Systemic corticosteroids	1660 (56.8)	156 (55.3)	0.030	1356 (56.8)	158 (56.5)	0.006
Statin	1980 (67.7)	227 (80.5)	0.294	1676 (70.2)	183 (65.2)	0.107
Charlson Comorbidity Index; n (%)						
0	438 (15.0)	24 (8.5)	0.154	317 (13.3)	36 (12.8)	0.012
1-2	1154 (39.5)	92 (32.6)	0.143	948 (39.7)	124 (44.2)	0.090
≥3	1331 (45.5)	166 (58.9)	0.269	1122 (47.0)	120 (43.0)	0.081
Healthcare use[‡]						
Inpatient hospitalizations						
0	1960 (67.1)	156 (55.3)	0.243	1581 (66.2)	182 (64.9)	0.029
1-2	821 (28.1)	103 (36.5)	0.181	683 (28.6)	88 (31.3)	0.058
≥3	142 (4.9)	23 (8.2)	0.134	123 (5.2)	11 (3.8)	0.063
Number of physician visits						
0-2	39 (1.3)	7 (2.5)	0.084	38 (1.6)	7 (2.5)	0.061
3-5	81 (2.8)	2 (0.7)	0.158	50 (2.1)	7 (2.5)	0.027
≥6	2803 (95.9)	273 (96.8)	0.049	2299 (96.3)	266 (95.0)	0.062

Abbreviations: aSD, absolute standard deviation; ACE, angiotensin converting enzyme; ARBs, angiotensin receptor blockers; CCB, calcium channel blockers; DPP-4i, dipeptidyl peptidase 4 inhibitors; GLP-1RA, glucagon like peptide 1 receptor agonists; NSAIDs, nonsteroidal anti-inflammatory drugs; OAB, overactive bladder; SGLT-2, sodium glucose cotransporter 2 inhibitors

Supplementary material 9. Reason for censoring of the concomitant users of SGLT-2i with OAB drugs versus GLP-1RA with OAB drugs

Reason for censoring	N (%)
Outcome occurrence	402 (4.7)
Switch to other glucose-lowering drugs	48 (0.6)
Discontinuation of cohort entry drugs	626 (7.3)
Death	51 (0.6)
End of study periods	584 (6.8)
Discontinuation of overactive bladder drugs	6,784 (80.0)