

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Diagnostic Codes of Various Diseases From *ICD-9-CM* and *ICD-10-CM*

Type 2 Diabetes Mellitus	<p>ICD-09: "250.0","250.00","250.02","250.10","250.12","250.2","250.20","250.22","250.30","250.32","250.40","250.42","250.50","250.52","250.60","250.62","250.70","250.72","250.80","250.82","250.90","250.92".</p> <p>ICD-10: "E11","E110","E110.0","E110.1","E112","E112.1","E112.2","E112.9","E113","E113.1","E113.11","E113.19","E113.2","E113.21","E113.29","E113.3","E113.31","E113.39","E113.4","E113.41","E113.49","E113.5","E113.51","E113.59","E113.6","E113.9","E114","E114.0","E114.1","E114.2","E114.3","E114.4","E114.9","E115","E115.1","E115.2","E115.9","E116","E116.1","E116.10","E116.18","E116.2","E116.20","E116.21","E116.22","E116.28","E116.3","E116.30","E116.38","E116.4","E116.41","E116.49","E116.5","E118","E119".</p>
Acute kidney injury	<p>ICD-09: "584.X"</p> <p>ICD-10: "N17.X"</p>
Dialysis	58001C, 58019C, 58020C, 58021C, 58022C, 58023C, 58024C, 58025C, 58029C, 58002C, 58009A, 58009B, 58010A, 58010B, 58011A, 58011AB, 58011B, 58011C, 58012A, 58012B, 58017B, 58017C, 58026C, 58028C, 58018C, 58027C, 58030B, 58007C, 58014C
Heart disease	ICD-10: I00-I09, I11, I13, I20-I51
Sepsis	ICD-10: A40-A41
Respiratory failure	ICD-10: J96
Shock	ICD-10: R57
Advanced chronic kidney disease	<p>ICD-10: N18.4 for stage 4.</p> <p>ICD-10: N18.5 for stage 5.</p>

eTable 2. Incidence and Risk of AKI Among Patients Using DPP4is and SGLT2is With Type 2 Diabetes in Full Study Population							
	Events, n	Person years	Incident rate	Crude HR (95%CI)	p-value	Adjusted HR (95%CI)	p-value
AKI							
DPP4i (N = 199,796)	2,921	267416.83	10.92	REF		REF	
SGLT2i (N = 52,777)	352	63963.23	5.50	0.50 (0.45 - 0.56)	<.001	0.66 (0.58 - 0.74)	<.001
Canagliflozin (N = 595)	2	176.57	11.33	1.06 (0.27 - 4.24)	.93	1.43 (0.36 - 5.74)	.61
Dapagliflozin (N = 29,419)	171	36072.51	4.74	0.43 (0.37 - 0.51)	<.001	0.61 (0.52 - 0.71)	<.001
Empagliflozin (N = 22,763)	179	27714.16	6.46	0.59 (0.51 - 0.69)	<.001	0.70 (0.60 - 0.82)	<.001
AKI-D							
DPP4i (N = 199,796)	338	269160.79	1.26	REF		REF	
SGLT2i (N = 52,777)	38	64171.76	0.59	0.48 (0.34 - 0.66)	<.001	0.57 (0.40 - 0.80)	.001
Canagliflozin (N = 595)	0	176.74	0.00	-	-	-	-
Dapagliflozin (N = 29,419)	19	36170.72	0.53	0.42 (0.27 - 0.67)	<.001	0.55 (0.34 - 0.87)	.01
Empagliflozin (N = 22,763)	19	27824.30	0.68	0.55 (0.35 - 0.87)	.01	0.60 (0.37 - 0.96)	.03
Incident rates were calculated as events of gout per 1000 person-years. AKI-D: AKI requiring dialysis							
Adjusted HR were calculated by adjusting for age, gender, HTN, HPL, CVD, CAD, CKD, GLP-1 agonist, insulin, metformin, ACEI / ARB, diuretics, statin, aspirin, PPI and NSAIDs							

eTable 3. Demographic Profiles of Patients With Type 2 Diabetes Using Dapagliflozin and Empagliflozin in the Propensity Score–Matched Population

	Dapagliflozin	Empagliflozin
	(N=29,116)	(N=22,526)
Age, Mean ± SD	57.17 ± 12.09	58.55 ± 12.27
Stratify age, n (%)		
<25	163 (0.56%)	124 (0.55%)
25-34	882 (3.03%)	567 (2.52%)
35-44	3,537 (12.15%)	2,391 (10.61%)
45-54	6,718 (23.07%)	4,729 (20.99%)
55-64	9,698 (33.31%)	7,386 (32.79%)
65-74	6,059 (20.81%)	5,258 (23.34%)
75-84	1,831 (6.29%)	1,784 (7.92%)
≥85	228 (0.78%)	287 (1.27%)
Gender (Women), n (%)	13,112 (45.03%)	9,575 (42.51%)
Comorbidity, n (%)		
Hypertension	2,276 (7.82%)	2,407 (10.69%)
Hyperlipidemia	20,964 (72.00%)	15,912 (70.64%)
Cerebral vascular disease	238 (0.82%)	287 (1.27%)
Coronary artery disease	5,248 (18.02%)	4,988 (22.14%)
Chronic kidney disease	2,577 (8.85%)	2,484 (11.03%)
Diabetes medications, n (%)		
GLP-1 agonist	285 (0.98%)	238 (1.06%)
Insulin	5,200 (17.86%)	4,724 (20.97%)
Metformin	26,349 (90.50%)	20,015 (88.85%)
Other medications, n (%)		
ACEI / ARB	15,228 (52.30%)	12,714 (56.44%)
Diuretics	2,437 (8.37%)	2,356 (10.46%)
Statin	17,787 (61.09%)	13,994 (62.12%)
Aspirin	6,654 (22.85%)	6,125 (27.19%)
PPI	1,110 (3.81%)	1,046 (4.64%)
NSAIDs	10,728 (36.85%)	8,084 (35.89%)

GLP-1: glucagonlike peptide-1; ACEI: angiotensin-converting enzyme inhibitor; ARB: angiotensin receptor blocker; NSAIDs: non-steroidal anti-inflammatory drugs; PPI: proton pump inhibitors

eTable 4. Stratified and Interaction Analysis of AKI Incidence in Patients With Type 2 Diabetes Receiving Dipeptidyl Peptidase 4 (DPP4) Inhibitors and Sodium-Glucose Cotransporter 2 (SGLT2) Inhibitors Using Baseline Comorbidities and Other Medications

	Propensity Score–Matched Population		
	Events, n	HR(95%CI)	interaction p
Acute kidney injury			
Age			0.10
<65	154	0.58 (0.47 - 0.70)	
≥65	198	0.74 (0.61 - 0.89)	
Gender			0.19
Male	198	0.62 (0.51 - 0.74)	
Female	154	0.73 (0.59 - 0.91)	
Comorbidity			
Hypertension			0.10
No	264	0.62 (0.53 - 0.72)	
Yes	88	0.82 (0.61 - 1.11)	
Hyperlipidemia			0.89
No	127	0.65 (0.52 - 0.82)	
Yes	225	0.66 (0.56 - 0.78)	
Cerebral vascular disease			0.89
No	345	0.66 (0.57 - 0.76)	
Yes	7	0.78 (0.30 - 2.06)	
Coronary artery disease			0.87
No	239	0.65 (0.55 - 0.77)	
Yes	113	0.68 (0.53 - 0.88)	
Chronic kidney disease			0.81
No	279	0.65 (0.56 - 0.76)	
Yes	73	0.68 (0.50 - 0.93)	
Diabetes medications			
GLP-1 agonist			0.85
No	346	0.66 (0.57 - 0.75)	
Yes	6	0.51 (0.10 - 2.60)	
Insulin			0.07
No	240	0.72 (0.61 - 0.85)	
Yes	112	0.55 (0.44 - 0.70)	
Metformin			0.11
No	72	0.88 (0.61 - 1.26)	
Yes	280	0.63 (0.54 - 0.73)	
Other medications			

ACEI / ARB				0.98
No	123	0.65 (0.52 - 0.82)		
Yes	229	0.66 (0.56 - 0.79)		
Diuretics				0.33
No	268	0.68 (0.59 - 0.80)		
Yes	84	0.59 (0.44 - 0.78)		
Statin				0.96
No	159	0.65 (0.53 - 0.80)		
Yes	193	0.66 (0.55 - 0.80)		
Aspirin				0.51
No	228	0.63 (0.54 - 0.75)		
Yes	124	0.71 (0.56 - 0.90)		
PPI				0.17
No	333	0.68 (0.59 - 0.78)		
Yes	19	0.46 (0.26 - 0.81)		
NSAIDs				0.93
No	238	0.66 (0.56 - 0.78)		
Yes	114	0.65 (0.52 - 0.83)		
GLP-1: glucagonlike peptide-1; ACEI: angiotensin-converting enzyme inhibitor; ARB: angiotensin receptor blocker; NSAIDs: non-steroidal anti-inflammatory drugs; PPI: proton pump inhibitors				