

**Supplementary Table 1.** Baseline characteristics of new users of SGLT2 inhibitors and oGLD before propensity score matching

	SGLT2 inhibitors	oGLD	ASD
Participants, n	79818	733350	
Male sex (%)	44446 (55.68)	427762 (58.33)	0.0535
Age (years)	56.8 ± 10.65	61.82 ± 11.19	0.4596
Body mass index (kg/m <sup>2</sup> )	26.98 ± 4.04	25.19 ± 3.44	0.4771
Waist circumference (cm)	89.35 ± 9.79	86.08 ± 8.88	0.3499
Systolic blood pressure (mmHg)	128.06 ± 14.8	128.37 ± 15.35	0.0206
Diastolic blood pressure (mmHg)	78.66 ± 9.94	78.03 ± 10	0.0632
Fasting plasma glucose (mg/dL)	158.28 ± 56.57	147.27 ± 54.07	0.1990
eGFR (mL/min/1.73 m <sup>2</sup> )	92.46 ± 54	86.94 ± 45.77	0.1103
Total cholesterol (mg/dL)	184.96 ± 49.25	187.41 ± 47.37	0.0507
Triglycerides (mg/dL)	149.9 (149.3- 150.51)	142.59 (142.41- 142.78)	0.0870
HDL cholesterol (mg/dL)	49.24 ± 12.84	49.76 ± 17.2	0.0343
LDL cholesterol (mg/dL)	101.67 ± 44.06	105.38 ± 47.9	0.0806
Hemoglobin (mg/dL)	14.27 ± 1.65	14 ± 1.69	0.1617
Duration of diabetes (years)	7.02 ± 5.04	6.43 ± 4.54	0.1230
Hypertension (%)	47929 (60.05)	450669 (61.45)	0.0288
Dyslipidemia (%)	61459 (77)	448057 (61.1)	0.3492
Diabetic retinopathy (%)	15222 (19.07)	193101 (26.33)	0.1740
Low income (%)	16252 (20.36)	146521 (19.98)	0.0095
Current smoker (%)	19229 (24.09)	173560 (23.67)	0.0100
Heavy alcohol drinker (%)	6787 (8.5)	62830 (8.57)	0.0023
Regular physical activity (%)	16363 (20.5)	154785 (21.11)	0.0149
Hypoglycemic medications, previous 1 year			
Insulin (%)	12657 (15.86)	54153 (7.38)	0.2667
Sulfonylurea (%)	45756 (57.33)	77127 (10.52)	1.1374
Metformin (%)	76803 (96.22)	380458 (51.88)	1.1726
Thiazolidinedione (%)	12725 (15.94)	65344 (8.91)	0.2144
Dipeptidyl peptidase 4 inhibitors (%)	50260 (62.97)	455638 (62.13)	0.0173
Number of concomitant oral hypoglycemic agents, previous 1 year			
1	17093 (21.41)	472960 (64.49)	0.9665
2	24239 (30.37)	220555 (30.07)	0.0064
≥3	38486 (48.22)	39835 (5.43)	1.1028
Index year			
2014	4456 (5.58)	458514 (62.52)	1.5031
2015	15647 (19.6)	73111 (9.97)	0.2739

2016	26768 (33.54)	102277 (13.95)	0.4731
2017	32947 (41.28)	99448 (13.56)	0.6536
Follow-up duration (years)	2.33 ± 0.89	3.63 ± 1.09	1.3065

Data are presented as mean ± standard deviation or proportions (%).

ASD, absolute standardized difference; eGFR, estimated glomerular filtration rate; HDL, high-density lipoprotein; LDL, low-density lipoprotein; oGLD, other glucose-lowering drugs; SGLT2, sodium-glucose cotransporter-2

**Supplementary Table 2** - Hazard ratios for retinal vein occlusion (RVO) for SGLT2 inhibitors in propensity score-matched analyses

	No.	No. of cases	Pearson-years	Incidence rate (per 1000 person-years)	Unadjusted HR (95% CI)	Adjusted HR (95% CI)
oGLD	733350	4641	2661813.07	1.74354843	1 (ref.)	1 (ref.)
SGLT2i	79818	557	185698.15	2.999491379	2.425 (2.216, 2.654)	1.371 (1.22, 1.541)

HR, hazard ratio; CI, confidence interval; oGLD, other glucose-lowering drugs; SGLT2, sodium-glucose cotransporter-2

## Figure Legends

**Supplementary Figure 1 - Flow diagram of patient inclusion in the study cohort**

