

Appendix Table 1. Diagnosis codes for co-morbidity	
Diseases	ICD-10-CM codes
Microvascular diseases	
Retinopathy	E083, E113
Nephropathy	E084, E114
Neuropathy	E082, E112
Macrovascular diseases	
Coronary artery disease	I20, I21, I22, I23, I24, I25
Myocardial infraction	I21
Unstable angina	I200
Stroke	I61-64
Peripheral arterial disease	I70, I73
Hypertension	I10-13, I15-16
Dyslipidemia	E78
Heart failure	I50
Lower extremity amputation	V497 , Z894 , Z895, Z896
Atrial fibrillation	I48
Liver disease	K70-77, I85
ICD-10-CM, International Classification of Diseases, Tenth Revision, Clinical Modification	

Appendix Table 2. Individual drug for study co-medication

Drug class	Drug name
Sulfonylurea	Glipizide, Gliclazide, Glimepiride, Glyburide
Dipeptidyl peptidase-4 inhibitors	Alogliptin, Linagliptin, Saxagliptin, Sitagliptin, Vlidagliptin
Glinides	Mitiglinide Nateglinide, Repaglinide
Thiazolidinediones	Pioglitzone
Glucagon-like peptide-1 receptor antagonists	Dulaglutide, Exenatide, Liraglutide
Insulins	Rapid, short, intermediate and long-acting insulins

Appendix Table 3. Patient characteristics between real-world practice in Taiwan and VERTIS-CV trial			
	All participants in VERTIS-CV trial	All SGLT2 new users in Taiwan	ASMD
Patient number	8,238	11,650	
Patient characteristics			
Age, mean (SD)	64.4 (8.1)	60.4 (12.0)	0.39
Female, %	30.0	38.2	0.17
Race, %			
White	87.8	0.0	3.79
Asian	6.0	100.0	5.59
Others	6.2	0.0	0.36
HbA1c, mean mg/dL (SD)	8.3 (0.9)	8.5 (1.7)	0.14
eGFR, mean ml/min/1.73m ² (SD)	76.0 (20.9)	89.5 (27.7)	0.55
≥ 90 ml/min/1.73m ² , %	24.8	46.3	0.46
60-90 ml/min/1.73m ² , %	53.3	40.4	0.26
30-60 ml/min/1.73m ² , %	21.6	11.8	0.26
<30 ml/min/1.73m ² , %	0.4	1.4	0.10
SBP, mean mmHg (SD)	133 (13.8)	139.5 (19.1)	0.39
DBP, mean mmHg (SD)	77 (8.5)	79.0 (12.1)	0.19
BMI, mean kg/m ² (SD)	32.0 (5.4)	28.1 (4.0)	0.82
Co-morbidity			
Microvascular diseases, %	NA	24.2	NA
Retinopathy	16.8	7.8	0.27
Nephropathy	27.7	20.1	0.17
Neuropathy	9.2	6.8	0.08
Macrovascular diseases, %	99.9	27.2	2.30
Coronary artery disease	76.3	23.4	1.24
Myocardial infraction	47.9	4.7	1.12
Unstable angina	NA	1.0	NA
Stroke	21.0	3.9	0.53
Peripheral arterial disease	18.8	1.2	0.61
Hypertension	NA	65.1	NA
Dyslipidemia	NA	67.9	NA
Heart failure	23.1	7.7	0.43
Lower extremity amputation	3.6	0.02	0.27
Atrial fibrillation	NA	3.6	NA
Liver disease	NA	16.2	NA
Cancer	0.0	5.4	0.33
Healthcare facility characteristics			
Medical specialties			
Endocrine	NA	51.4	NA
Cardiology	NA	31.2	NA
Nephrology	NA	4.5	NA
Other	NA	12.9	NA
Drug characteristics			
No. anti-diabetes drug, mean (SD)	NA	2.1 (1.2)	NA
Anti-diabetes drug regimen, %			
Treatment native	1.3	12.1	0.44
Monotherapy	32.3	18.1	0.33
Dual therapy	50.4	29.3	0.44
At least triple therapy	16.1	40.5	0.56
Anti-diabetes drug class, %			
Metformin	76.3	77.6	0.03
Sulfonyurea	41.1	42.0	0.01
DPP4 inhibitors	11.0	56.6	1.07
Glinide	NA	1.9	NA
Acarbose	NA	4.7	NA
Thiazolidinedione	1.9	13.3	0.44
GLP-1 receptor agonists	3.4	1.2	0.15
Insulin	47.2	13.2	0.79

ASMD, absolute standardized mean difference; BMI, body mass index; DBP, diastolic blood pressure; DPP4, dipeptidyl peptidase 4; eGFR, estimated glomerular filtration rate; GLP, glucagon-like peptide; NA, not available; SBP, systolic

blood pressure; SD, standard deviation