Additional file 10. Details of present and existing studies included in systematic review

Study (country, perspective)	Model	Study population	Data source of effectiveness	Time horizon, discount rate	Treatment	ICER in 2020 USD* (CE or CS)	Methodological issues: (1) Generalizability to real-world practice (2) Representativeness of effectiveness inputs to target populations (3) Use of country-/population-specific cost inputs (4) Use of country-/population-specific health utility inputs			
							(1)	(2)	(3)	(4)
Charokopou, 2015 (UK, third-party payer)	Cardiff	T2D patients aged 57 years	NMA of clinical trials	Lifetime, 3.5%	Dapagliflozin versus DPP4is	USD 10,269.16 (CE)	Limited†	Yes	Yes	Yes
Neslusan, 2015 (Mexico, third-party payer)	ECHO-T2DM	T2D patients aged 55 years	4-arm clinical trial	20 years, 5.0%	Canagliflozin versus DPP4is	USD 715.94 to 8,231.27 (CE)	Limited†	Yes	Yes	No
Sabapathy, 2016 (Canada, third-party payer)	ECHO-T2DM	T2D patients aged 56 years	Clinical trials	40 years, 5.0%	Canagliflozin versus DPP4is	Canagliflozin dominates (CS)	Limited†	Yes	Yes	Yes
Tzanetakos, 2016 (Greece, third-party payer)	Cardiff	T2D patients aged 57 years	NMA of clinical trials	Lifetime, 3.5%	Dapagliflozin versus DPP4is	USD 21,230.92 (CE)	Limited†	Limited‡	Yes	No

Chakravarty, 2018 (US, third-party payer)	SDAM	T2D patients aged 57 years	NMA of clinical trials	1 year, N/A	Dapagliflozin versus DPP4is	Dapagliflozin dominates (CS)	Limited†	Yes	Yes	No
Ramos, 2019 (UK, third-party payer)	CORE	T2D patients aged 63 years	CVOTs	50 years, 3.5%	Empagliflozin versus sitagliptin or saxagliptin	USD 5,194.49 to 8,658.38 (CE)	Limited†	Yes	Yes	Yes
Reifsnider, 2021 (US, third-party payer)	UKPDS-OM 1 and 2 and EMPA-REG risk equations	T2D patients aged 61 years	NMA of clinical trials (for patients without CVD history) and CVOTs (for patients with CVD history)	Lifetime, 3.0%	Empagliflozin versus sitagliptin	USD 7,177.25 (CE)	Limited†	Yes	Yes	Yes
Hu, 2021 (China, third-party payer)	UKPDS-OM 2	T2D patients aged 55 years	Clinical trials	Lifetime, 5.0%	Dapagliflozin versus saxagliptin	USD 12,342.39 (CE)	Limited†	Limited§	Yes	Yes
Van der Linden, 2021 (Netherland, societal)	Cardiff	T2D patients aged 61 years	Clinical trials	40 years, 4% for costs and 1.5% for effectiveness	Dapagliflozin versus DPP4is	Dapagliflozin dominates (CS)	Limited†	Yes	Yes	No
Present study	Markov	T2D patients aged	Observational	10 years,	SGLT2is	USD	Yes	Yes	Yes	Yes

(Taiwan, healthcare sectors)	model	55 years	study	3.0%	versus DPP4is	3,244.07 to 4,185.64 (CE)	

Abbreviations: ICER, incremental cost effectiveness ratio; USD, United States dollar; CE, cost-effective; CS, cost-saving; T2D, type 2 diabetes; NMA, network meta-analysis; DPP4is, dipeptidyl peptidase 4 inhibitors; ECHO-T2DM, economic and health outcomes model of type 2 diabetes mellitus; SDAM, short-term decision-analytic model; N/A, not applicable; CORE, CORE diabetes model; CVOTs, cardiovascular outcomes trials; UKPDS-OM1, United Kingdom Prospective Diabetes Study Outcomes Model version 1; UKPDS-OM2, United Kingdom Prospective Diabetes Study Outcomes Model version 2; EMPA-REG, Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes; CVD, cardiovascular disease; SGLT2is, sodium-glucose cotransporter-2 inhibitors.

*The original estimates of ICERs were extracted from the published article and inflated to 2020 using the country-specific consumer price index; they are presented as USD per QALY gained in this summary table.

†Due to the effectiveness parameters that were obtained from clinical trials, the generalizability of results of previous cost-effectiveness analyses to real-world settings is limited.

‡The effectiveness parameters were from a clinical trial without Greek patients.

§The effectiveness parameters were synthesized from 5 clinical trials; Asian participants accounted for only 0.4%-6% of the population in these trials.