

COST-EFFECTIVENESS OF HIGHLY EFFECTIVE GLUCOSE LOWERING AGENTS: DO CURRENT PRACTICES OPTIMIZE CLINICAL AND ECONOMIC OUTCOMES?

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Running header: Optimizing long-term T2D management in the US

SUPPLEMENTARY MATERIAL

Table S 1 Summary of cohort characteristics for the modeling analysis

	Mean	Standard deviation
Demographics		
Male (%)	50.8	Not applicable
College education or higher (%)	25.97	Not applicable
Smokers (%)	18.2	Not applicable
Age (years)	55.3	6.4
Duration of diabetes (%)	1.0	0.10
Ethnic group		
White (%)	59.1	Not applicable
Black (%)	13.6	Not applicable
Southeast Asian (%)	9.8	Not applicable
Other (%)	17.5	Not applicable
Baseline risk factors		
HbA1c (%)	6.7	0.72
Systolic blood pressure (mmHg)	126.0	10.6
Total cholesterol (mmol/L)	4.72	0.51
Low density lipoprotein cholesterol (mmol/L)	2.27	0.57
High density lipoprotein cholesterol (mmol/L)	1.11	0.28
eGFR (ml/min/1.73 m ²)	96.0	17.10
Body mass index (kg/m ²)	34.5	4.29
White blood cell count (10 ⁶ cells/mL)	6.8	1.8
Heart rate (bpm)	72.0	12.0
Hemoglobin (g/dL)	14.5	1.4

eGFR; estimated glomerular filtration rate; HbA1c, glycated haemoglobin.

Table S 2 Summary of direct costs associated with diabetes-related complications in the modeling analysis

	Cost in the year of event (USD)	Cost in subsequent years (USD)
Myocardial infarction	52,796	10,001
Stroke	27,245	5,517
Ischemic heart disease	10,392	2,489
Congestive heart failure	36,404	8,240
Foot ulcer	6,121	3,017
Amputation	11,819	694
Blindness	15,161	15,161
Neuropathy/SPSL	2,071	2,071
KDIGO CKD eGFR stages 1 -4	0	0
KDIGO CKD eGFR stage 5	110,254	110,254
Severe hypoglycaemic event	575	575
Non-severe hypoglycaemic event (daytime and nocturnal)	0	0

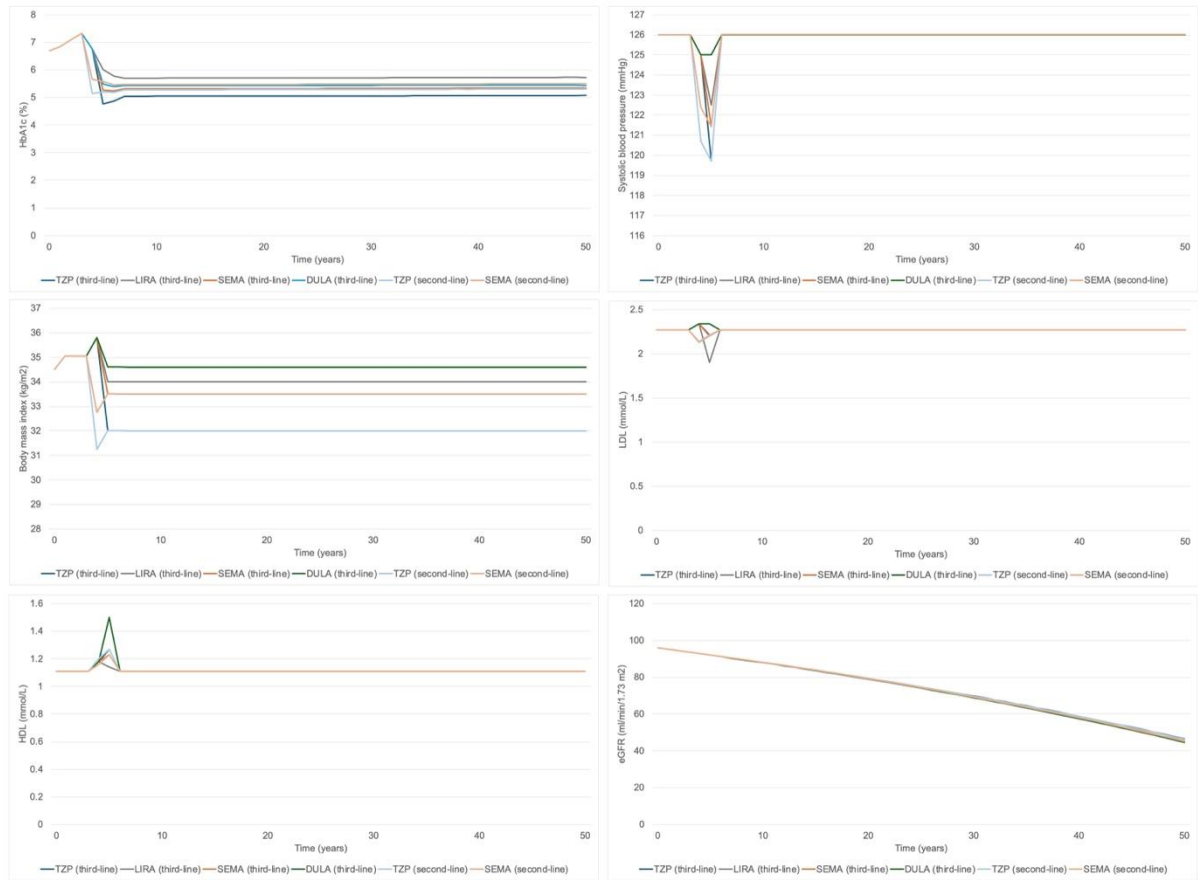
CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; KDIGO, Kidney Disease Improving Global Outcomes; SPSL, severe pressure sensation loss

Table S3 **Summary of disutilities used in the modeling analysis for diabetes-related complications and hypoglycemic events**

Complications / adverse events	Utility decrease in first year of event	Utility decrease in subsequent years
Myocardial infarction	-0.042	-0.011
Stroke	-0.204	-0.101
Congestive heart failure	-0.089	-0.041
Foot ulcer	-0.023	n/a
Lower extremity amputation	-0.122	-0.122
Blindness	-0.057	-0.057
Neuropathy / SPSL	-0.066	-0.066
KDIGO CKD eGFR stage 1 - 4	0	0
KDIGO CKD eGFR stage 5	-0.024	-0.024
Utility decrease per event		
Severe hypoglycemic event	-0.060	
Non-severe hypoglycemic event	-0.005	

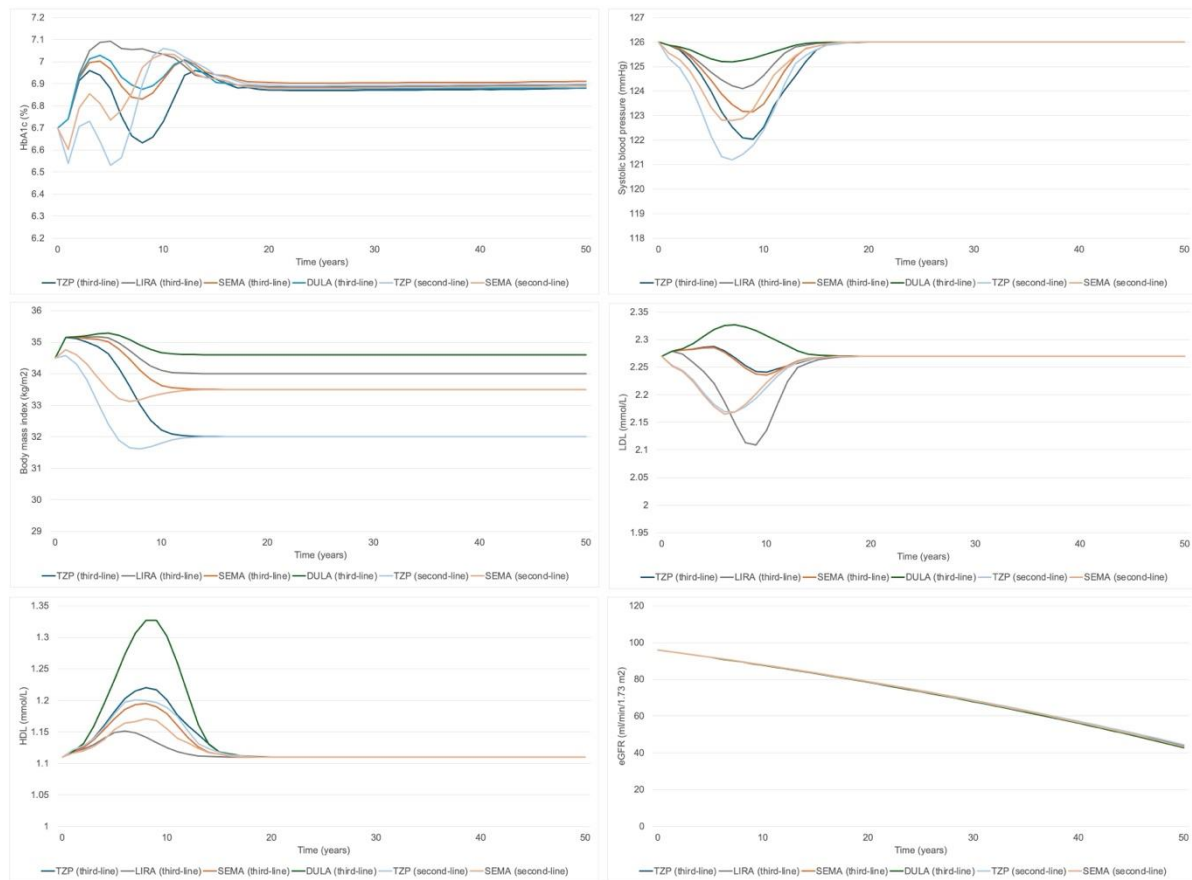
T2D, type 2 diabetes; SPSL, severe pressure sensation loss; KDIGO, Kidney Disease Improving Global Outcomes; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate.

Figure S1 Risk factor progressions over 50 years for all treatment pathways in the 3-year intensification analyses



eGFR, estimated glomerular filtration rate; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; LDL, low-density lipoprotein

Figure S2 Risk factor progressions for all treatment pathways in the intensification at HbA1c 7.5% analyses



eGFR, estimated glomerular filtration rate; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; LDL, low-density lipoprotein