

EVALUATING THE LONG-TERM COST-EFFECTIVENESS OF ONCE-WEEKLY SEMAGLUTIDE 1 MG VERSUS LIRAGLUTIDE 1.8 MG: A HEALTH ECONOMIC ANALYSIS IN THE UK

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Table S1 **Applied baseline cohort characteristics from SUSTAIN 2**

Characteristic	Mean (standard deviation)
Age, years	55.1 (10.0)
Duration of diabetes, years	7.0 (5.1)
Male, %	50.6
HbA1c, %	8.1 (0.9)
HbA1c, mmol/mol	65 (10)
Systolic blood pressure, mmHg	132.7 (14.9)
Diastolic blood pressure, mmHg	80.7 (9.2)
Total cholesterol, mg/dL	187.1 (43.6)
HDL cholesterol, mg/dL	48.0 (12.6)
BMI, kg/m ²	32.5 (6.2)
Smokers, %	17.8
Mean number of cigarettes smoked per day	9.1 [†]
Alcohol consumption, oz per week	7.42

BMI, body mass index; HbA1c, glycated haemoglobin; HDL, high-density lipoprotein. [†]Rounded to 9.0 in the analysis, as the model only accepts integer values for this parameter. Characteristics were sourced from all patients in the SUSTAIN 2 clinical trial, with the exception of alcohol and tobacco consumption, which were not collected in SUSTAIN 2 and were assumed to be the same as the general UK population.^{1,2,3}

Table S2 **Applied treatment effects from the NMA**

Parameter	Once-weekly semaglutide 1 mg	Liraglutide 1.8 mg
<i>Physiological parameters (applied in the first year of the analysis), mean (SE)</i>		
HbA1c, %	-1.7 (0.1)*	-1.3 (0.1)
HbA1c, mmol/mol	-19 (1)*	-14 (1)
Systolic blood pressure, mmHg	-4.9 (1.1)*	-2.9 (1.0)
Diastolic blood pressure, mmHg	-1.4 (0.6)	-0.7 (0.5)
Total cholesterol, mg/dL	0 (0)	0 (0)
HDL cholesterol, mg/dL	0 (0)	0 (0)
LDL cholesterol, mg/dL	0 (0)	0 (0)
Triglycerides, mg/dL	0 (0)	0 (0)

Parameter	Once-weekly semaglutide 1 mg	Liraglutide 1.8 mg
BMI, kg/m ²	-1.9 (0.2)*	-1.2 (0.1)
<i>Hypoglycaemic event rates (applied while patients received treatment)</i>		
Non-severe hypoglycaemic event rate, events per 100 patient years	0.0	0.0
Severe hypoglycaemic event rate, events per 100 patient years	0.0	0.0
Proportion of non-severe hypoglycaemic events that are nocturnal	0.0	0.0
Proportion of severe hypoglycaemic events that are nocturnal	0.0	0.0

BMI, body mass index; HbA1c, glycated haemoglobin; HDL, high-density lipoprotein; LDL, low-density lipoprotein; SE, standard error.

Table S3 Costs of treating diabetes-related complications applied in the analyses

Complication	Cost, GBP	Reference
Myocardial infarction, year of event	8,512	4
Myocardial infarction, years 2+	2,116	4
Angina, year of onset	2,513	5
Angina, years 2+	421	5
Congestive heart failure, year of onset	4,835	4
Congestive heart failure, years 2+	2,836	4
Stroke, year of event	9,154	4
Stroke, years 2+	2,181	4
Stroke, death within 30 days	4,584	4
Peripheral vascular disease, onset	2,304	6
Peripheral vascular disease, years 2+	2,304	6
Hemodialysis, onset	22,402	6
Hemodialysis, years 2+	22,402	6
Peritoneal dialysis, onset	22,476	6
Peritoneal dialysis, years 2+	22,476	6
Kidney transplant, first year	29,121	7
Kidney transplant, years 2+	1,359	7
Non-severe hypoglycemia	4	8
Severe hypoglycemia	463	9

Complication	Cost, GBP	Reference
Laser treatment	99	6
Cataract operation	812	4
Cataract operation, years 2+	781	4
Blindness, first year	3,646	4
Blindness, years 2+	1,381	4
Neuropathy, year of onset	28	10
Neuropathy, years 2+	28	10
Amputation, procedure	14,196	4
Amputation, prosthesis	3,945	4
Gangrene treatment	3,860	11
Infected foot ulcer	2,213	11
Uninfected foot ulcer	2,170	11
Cost after healed ulcer	292	11
Cost of healed ulcer (history of amputation)	292	11

GBP, 2021 pounds sterling.

Table S4 Health-state utilities and event-based disutilities applied in the analyses

Complication	Utility	Reference
Patient with type 2 diabetes baseline (no complications)	0.785	12
Myocardial infarction event	-0.055	12
Post-myocardial infarction	0.730	12
Angina	0.695	12
Congestive heart failure	0.677	12
Stroke event	-0.164	12
Post-stroke	0.621	12
Peripheral vascular disease	0.724	13
Microalbuminuria	0.785	12
Gross proteinuria	0.737	13
Hemodialysis	0.621	14
Peritoneal dialysis	0.581	14
Renal transplant	0.762	15
Background diabetic retinopathy	0.745	16

Complication	Utility	Reference
Background diabetic retinopathy wrongly treated	0.745	16
Proliferative diabetic retinopathy laser treated	0.715	16
Proliferative diabetic retinopathy no Laser	0.715	16
Macular edema	0.745	16
Severe vision loss	0.711	12
Cataract	0.769	17
Neuropathy	0.701	13
Healed ulcer	0.785	12
Active ulcer	0.615	13
Amputation event	-0.280	12
Post-amputation	0.505	12
Non-severe hypoglycemic event (daytime)	-0.005	18
Non-severe hypoglycemic event (nocturnal)	-0.008	18
Severe hypoglycemic event (daytime)	-0.062	18
Severe hypoglycemic event (nocturnal)	-0.066	18
Each unit of BMI over 25 kg/m ²	-0.0061	13

BMI, body mass index.

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