

## Type 2 diabetes in adults: management

**[F8.3] Evidence reviews for subsequent  
pharmacological management of type 2  
diabetes: appendix S**

*NICE guideline GID-NG10336*

*Evidence reviews underpinning recommendations 1.8.6-1.8.32,  
1.8.34, 1.8.38-1.8.60 and recommendations for research in the  
NICE guideline*

*August 2025*

*Draft for Consultation*

*This evidence review was developed by NICE*



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## Appendix S Baseline health-related quality of life, HbA1c, weight and BMI values

**Table 1: Baseline characteristic HbA1c, weight and BMI values for studies included in the review for subsequent therapy, model 1 (people with chronic heart failure)**

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Arturi 2017	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	30.8	6	Not applicable	Not applicable	Not applicable	12
Arturi 2017	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.2	2	Not applicable	Not applicable	Not applicable	10
Arturi 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.9	2.8	Not applicable	Not applicable	Not applicable	10
Chen 2017	Exenatide; 20 micrograms daily; Subcutaneous	BMI change	kg/m2	29	2.6	Not applicable	Not applicable	Not applicable	11
Chen 2017	Exenatide; 20 micrograms daily;	HbA1c change	%	7.7	1.7	Not applicable	Not applicable	Not applicable	11

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Chen 2017	Insulin type unspecified; 10 units daily uptitrated as required; Subcutaneous	BMI change	kg/m2	29.9	3.3	Not applicable	Not applicable	Not applicable	12
Chen 2017	Insulin type unspecified; 10 units daily uptitrated as required; Subcutaneous	HbA1c change	%	7.5	0.8	Not applicable	Not applicable	Not applicable	12
McMurray 2018	Placebo; None; Oral	BMI change	kg/m2	29.3	4.7	Not applicable	Not applicable	Not applicable	126
McMurray 2018	Placebo; None; Oral	HbA1c change	%	7.8	1.07	Not applicable	Not applicable	Not applicable	126
McMurray 2018	Vildagliptin; 50-100 mg daily; Oral	BMI change	kg/m2	29.6	4.6	Not applicable	Not applicable	Not applicable	128
McMurray 2018	Vildagliptin; 50-100 mg daily; Oral	HbA1c change	%	7.8	0.95	Not applicable	Not applicable	Not applicable	128
Perkovic 2019 HF	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.4	1.3	Not applicable	Not applicable	Not applicable	329

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Perkovic 2019 HF	Placebo; None; Oral	HbA1c change	%	8.4	1.4	Not applicable	Not applicable	Not applicable	323

**Table 2: Baseline characteristic HbA1c, weight and BMI values for studies included in the review for subsequent therapy, model 2 (people with atherosclerotic cardiovascular disease)**

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Arturi 2017	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	30.8	6	Not applicable	Not applicable	Not applicable	12
Arturi 2017	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.2	2	Not applicable	Not applicable	Not applicable	10
Arturi 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.9	2.8	Not applicable	Not applicable	Not applicable	10
Cannon 2020	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	31.9	5.4	Not applicable	Not applicable	Not applicable	5496
Cannon 2020	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	5474

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Cannon 2020	Placebo; None; Oral	BMI change	kg/m2	32	5.5	Not applicable	Not applicable	Not applicable	2747
Cannon 2020	Placebo; None; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	2732
Cannon 2020 CKD	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.1	5.3	Not applicable	Not applicable	Not applicable	2740
Cannon 2020 CKD	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.34	1	Not applicable	Not applicable	Not applicable	2740
Cannon 2020 CKD	Placebo; None; Oral	BMI change	kg/m2	32.3	5.53	Not applicable	Not applicable	Not applicable	1376
Cannon 2020 CKD	Placebo; None; Oral	HbA1c change	%	8.3	0.96	Not applicable	Not applicable	Not applicable	1376
Cannon 2020 CKD high	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.2	5.5	Not applicable	Not applicable	Not applicable	1031
Cannon 2020 CKD high	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	1031
Cannon 2020 CKD high	Placebo; None; Oral	BMI change	kg/m2	32.8	6	Not applicable	Not applicable	Not applicable	517
Cannon 2020 CKD high	Placebo; None; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	517
Cannon 2020 CKD mod	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.1	5.3	Not applicable	Not applicable	Not applicable	1709



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Cannon 2020 CKD mod	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	1709
Cannon 2020 CKD mod	Placebo; None; Oral	BMI change	kg/m2	32	5.2	Not applicable	Not applicable	Not applicable	859
Cannon 2020 CKD mod	Placebo; None; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	859
Cannon 2020 no CKD	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	31.6	5.2	Not applicable	Not applicable	Not applicable	2609
Cannon 2020 no CKD	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	2609
Cannon 2020 no CKD	Placebo; None; Oral	BMI change	kg/m2	31.5	5.3	Not applicable	Not applicable	Not applicable	1307
Cannon 2020 no CKD	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	1307
Cefalu 2015	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	32.6	5.9	Not applicable	Not applicable	Not applicable	455
Cefalu 2015	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.18	0.84	Not applicable	Not applicable	Not applicable	455
Cefalu 2015	Placebo; None; Oral	BMI change	kg/m2	32.9	6.1	Not applicable	Not applicable	Not applicable	459
Cefalu 2015	Placebo; None; Oral	HbA1c change	%	8.08	0.8	Not applicable	Not applicable	Not applicable	459

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Chen 2017	Exenatide; 20 micrograms daily; Subcutaneous	BMI change	kg/m2	29	2.6	Not applicable	Not applicable	Not applicable	11
Chen 2017	Exenatide; 20 micrograms daily; Subcutaneous	HbA1c change	%	7.7	1.7	Not applicable	Not applicable	Not applicable	11
Chen 2017	Insulin type unspecified; 10 units daily uptitrated as required; Subcutaneous	BMI change	kg/m2	29.9	3.3	Not applicable	Not applicable	Not applicable	12
Chen 2017	Insulin type unspecified; 10 units daily uptitrated as required; Subcutaneous	HbA1c change	%	7.5	0.8	Not applicable	Not applicable	Not applicable	12
Del Prato 2021	Insulin glargine; Initially 10 units daily	BMI change	kg/m2	32.5	5.55	Not applicable	Not applicable	Not applicable	1000

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	uptitrated according to needs; Subcutaneous								
Del Prato 2021	Insulin glargine; Initially 10 units daily uptitrated according to needs; Subcutaneous	HbA1c change	%	8.5	0.85	Not applicable	Not applicable	Not applicable	1000
Del Prato 2021	Insulin glargine; Initially 10 units daily uptitrated according to needs; Subcutaneous	Weight change	kg	90.2	19	Not applicable	Not applicable	Not applicable	1000
Del Prato 2021	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m <sup>2</sup>	32.8	5.51	Not applicable	Not applicable	Not applicable	328
Del Prato 2021	Tirzepatide; 10 mg	HbA1c change	%	8.59	0.91	Not applicable	Not applicable	Not applicable	328

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Del Prato 2021	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	90.6	18.21	Not applicable	Not applicable	Not applicable	328
Del Prato 2021	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	32.5	5.02	Not applicable	Not applicable	Not applicable	338
Del Prato 2021	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	8.52	0.98	Not applicable	Not applicable	Not applicable	338
Del Prato 2021	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	90	16.34	Not applicable	Not applicable	Not applicable	338
Del Prato 2021	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	32.6	6.06	Not applicable	Not applicable	Not applicable	329
Del Prato 2021	Tirzepatide; 5 mg weekly;	HbA1c change	%	8.52	0.84	Not applicable	Not applicable	Not applicable	329

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Del Prato 2021	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	90.3	20.32	Not applicable	Not applicable	Not applicable	329
Del Prato 2021	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	BMI change	kg/m2	32.63	5.54	Not applicable	Not applicable	Not applicable	995
Del Prato 2021	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	HbA1c change	%	8.54	0.94	Not applicable	Not applicable	Not applicable	995
Del Prato 2021	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	Weight change	kg	90.3	18.35	Not applicable	Not applicable	Not applicable	995
Gohari 2022	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.05	0.97	Not applicable	Not applicable	Not applicable	47
Gohari 2022	Placebo; None; Oral	HbA1c change	%	7.75	0.94	Not applicable	Not applicable	Not applicable	48

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Green 2015	Placebo; None; Oral	BMI change	kg/m2	5.6	5.7	Not applicable	Not applicable	Not applicable	7339
Green 2015	Placebo; None; Oral	HbA1c change	%	7.2	0.5	Not applicable	Not applicable	Not applicable	7339
Green 2015	Sitagliptin; 50-100 mg daily; Oral	BMI change	kg/m2	30.2	30.2	Not applicable	Not applicable	Not applicable	7332
Green 2015	Sitagliptin; 50-100 mg daily; Oral	HbA1c change	%	7.2	0.5	Not applicable	Not applicable	Not applicable	7332
Lee 2013B	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	24	2.96	Not applicable	Not applicable	Not applicable	60
Lee 2013B	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	8.1	1.6	Not applicable	Not applicable	Not applicable	60
Lee 2013B	Placebo; None; Oral	BMI change	kg/m2	23.8	3.23	Not applicable	Not applicable	Not applicable	61
Lee 2013B	Placebo; None; Oral	HbA1c change	%	7.4	1.8	Not applicable	Not applicable	Not applicable	61
Leiter 2014	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	33	5.3	Not applicable	Not applicable	Not applicable	480
Leiter 2014	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	94.5	17.8	Not applicable	Not applicable	Not applicable	480
Leiter 2014	Placebo; None; Oral	BMI change	kg/m2	32.7	5.7	Not applicable	Not applicable	Not applicable	482

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Leiter 2014	Placebo; None; Oral	Weight change	kg	93.2	16.8	Not applicable	Not applicable	Not applicable	482
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	BMI change	kg/m2	25.2	3.6	Not applicable	Not applicable	Not applicable	29
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	HbA1c change	%	9.3	1.5	Not applicable	Not applicable	Not applicable	29
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	Weight change	kg	66.2	16.3	Not applicable	Not applicable	Not applicable	29
Li 2014C	Insulin type unspecified; As required; Subcutaneous	BMI change	kg/m2	25.4	3.7	Not applicable	Not applicable	Not applicable	26
Li 2014C	Insulin type unspecified; As required; Subcutaneous	HbA1c change	%	9.4	1.4	Not applicable	Not applicable	Not applicable	26
Li 2014C	Insulin type unspecified; As required; Subcutaneous	Weight change	kg	67.2	15.9	Not applicable	Not applicable	Not applicable	26
Nissen 2008	Glimepiride; 1-4 mg daily; Oral	HbA1c change	%	7.4	1	Not applicable	Not applicable	Not applicable	181

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nissen 2008	Glimepiride; 1-4 mg daily; Oral	Weight change	kg	93.3	18.5	Not applicable	Not applicable	Not applicable	181
Nissen 2008	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	7.4	1	Not applicable	Not applicable	Not applicable	179
Nissen 2008	Pioglitazone; 15-45 mg daily; Oral	Weight change	kg	94.3	19.5	Not applicable	Not applicable	Not applicable	179
Oh 2021	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	25.9	3.2	Not applicable	Not applicable	Not applicable	48
Oh 2021	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.1	0.8	Not applicable	Not applicable	Not applicable	48
Oh 2021	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	73.3	11.9	Not applicable	Not applicable	Not applicable	48
Oh 2021	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.2	2.6	Not applicable	Not applicable	Not applicable	49
Oh 2021	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.2	1	Not applicable	Not applicable	Not applicable	49
Oh 2021	Sitagliptin; 100 mg daily; Oral	Weight change	kg	70.6	10	Not applicable	Not applicable	Not applicable	49



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pfeffer 2015	Lixisenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	30.2	5.8	Not applicable	Not applicable	Not applicable	3034
Pfeffer 2015	Lixisenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.6	1.3	Not applicable	Not applicable	Not applicable	3034
Pfeffer 2015	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	85.1	19.6	Not applicable	Not applicable	Not applicable	3034
Pfeffer 2015	Placebo; None; Subcutaneous	BMI change	kg/m2	30.1	5.6	Not applicable	Not applicable	Not applicable	3034
Pfeffer 2015	Placebo; None; Subcutaneous	HbA1c change	%	7.7	1.3	Not applicable	Not applicable	Not applicable	3034
Pfeffer 2015	Placebo; None; Subcutaneous	Weight change	kg	84.6	19.2	Not applicable	Not applicable	Not applicable	3034

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Phrommintikul 2019	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m <sup>2</sup>	25.63	3	Not applicable	Not applicable	Not applicable	25
Phrommintikul 2019	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.17	1.41	Not applicable	Not applicable	Not applicable	25
Phrommintikul 2019	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	63.7	10.44	Not applicable	Not applicable	Not applicable	25
Phrommintikul 2019	Vildagliptin; 50-100 mg daily; Oral	BMI change	kg/m <sup>2</sup>	24.9	3.16	Not applicable	Not applicable	Not applicable	24
Phrommintikul 2019	Vildagliptin; 50-100 mg daily; Oral	HbA1c change	%	8.25	1.13	Not applicable	Not applicable	Not applicable	24
Phrommintikul 2019	Vildagliptin; 50-100 mg daily; Oral	Weight change	kg	62.38	13.5	Not applicable	Not applicable	Not applicable	24
Verma 2019	Empagliflozin; 10 mg daily; Oral	BMI change	kg/m <sup>2</sup>	27.7	4.7	Not applicable	Not applicable	Not applicable	49
Verma 2019	Empagliflozin; 10 mg daily; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	49
Verma 2019	Empagliflozin; 10 mg daily; Oral	Weight change	kg	81.5	16.9	Not applicable	Not applicable	Not applicable	49

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Verma 2019	Placebo; None; Oral	BMI change	kg/m2	27.4	5.4	Not applicable	Not applicable	Not applicable	48
Verma 2019	Placebo; None; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	48
Verma 2019	Placebo; None; Oral	Weight change	kg	80	18.2	Not applicable	Not applicable	Not applicable	48
White 2013	Alogliptin; 6.25-25 mg daily; Oral	HbA1c change	%	8	1.1	Not applicable	Not applicable	Not applicable	2701
White 2013	Placebo; None; Oral	HbA1c change	%	8	1.1	Not applicable	Not applicable	Not applicable	2679
Wilcox 2008	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	30.7	4.7	Not applicable	Not applicable	Not applicable	2605
Wilcox 2008	Placebo; None; Oral	BMI change	kg/m2	31	4.8	Not applicable	Not applicable	Not applicable	2633
Zinman 2015	Empagliflozin ; 10-25 mg daily; Oral	BMI change	kg/m2	30.6	5.3	Not applicable	Not applicable	Not applicable	4687
Zinman 2015	Empagliflozin ; 10-25 mg daily; Oral	HbA1c change	%	8.07	0.85	Not applicable	Not applicable	Not applicable	4687
Zinman 2015	Empagliflozin ; 10-25 mg daily; Oral	Weight change	kg	86.2	18.9	Not applicable	Not applicable	Not applicable	4687
Zinman 2015	Placebo; None; Oral	BMI change	kg/m2	30.7	5.2	Not applicable	Not applicable	Not applicable	2333

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zinman 2015	Placebo; None; Oral	HbA1c change	%	8.08	0.84	Not applicable	Not applicable	Not applicable	2333
Zinman 2015	Placebo; None; Oral	Weight change	kg	86.6	19.1	Not applicable	Not applicable	Not applicable	2333

**Table 3: Baseline characteristic HbA1c, weight and BMI values for studies included in the review for subsequent therapy, model 3 (people with chronic kidney disease)**

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Barnett 2014	Empagliflozin ; 10-25 mg daily; Oral	BMI change	kg/m2	29.04	8.4	Not applicable	Not applicable	Not applicable	419
Barnett 2014	Empagliflozin ; 10-25 mg daily; Oral	HbA1c change	%	8.01	0.84	Not applicable	Not applicable	Not applicable	419
Barnett 2014	Placebo; None; Oral	BMI change	kg/m2	27.88	8.78	Not applicable	Not applicable	Not applicable	319
Barnett 2014	Placebo; None; Oral	HbA1c change	%	8.1	0.82	Not applicable	Not applicable	Not applicable	319
Barnett 2014 stage 2 CKD	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	32.4	5.4	Not applicable	Not applicable	Not applicable	98
Barnett 2014 stage 2 CKD	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.02	0.84	Not applicable	Not applicable	Not applicable	98

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Barnett 2014 stage 2 CKD	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	31.85	5.63	Not applicable	Not applicable	Not applicable	195
Barnett 2014 stage 2 CKD	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	7.99	0.79	Not applicable	Not applicable	Not applicable	195
Barnett 2014 stage 2 CKD	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	31.3	5.8	Not applicable	Not applicable	Not applicable	97
Barnett 2014 stage 2 CKD	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	7.96	0.73	Not applicable	Not applicable	Not applicable	97
Barnett 2014 stage 2 CKD	Placebo; None; Oral	BMI change	kg/m2	30.8	5.6	Not applicable	Not applicable	Not applicable	95
Barnett 2014 stage 2 CKD	Placebo; None; Oral	HbA1c change	%	8.09	0.8	Not applicable	Not applicable	Not applicable	95
Barnett 2014 stage 3 CKD	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	30.2	5.3	Not applicable	Not applicable	Not applicable	187
Barnett 2014 stage 3 CKD	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.02	0.84	Not applicable	Not applicable	Not applicable	187
Barnett 2014 stage 3 CKD	Placebo; None; Oral	BMI change	kg/m2	30.3	5.3	Not applicable	Not applicable	Not applicable	187

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Barnett 2014 stage 3 CKD	Placebo; None; Oral	HbA1c change	%	8.09	0.8	Not applicable	Not applicable	Not applicable	187
Barnett 2014 stage 4 CKD	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	8.06	1.05	Not applicable	Not applicable	Not applicable	37
Barnett 2014 stage 4 CKD	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.06	1.05	Not applicable	Not applicable	Not applicable	37
Barnett 2014 stage 4 CKD	Placebo; None; Oral	BMI change	kg/m2	8.16	0.99	Not applicable	Not applicable	Not applicable	37
Barnett 2014 stage 4 CKD	Placebo; None; Oral	HbA1c change	%	8.16	0.99	Not applicable	Not applicable	Not applicable	37
Cannon 2020 CKD	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.1	5.3	Not applicable	Not applicable	Not applicable	2740
Cannon 2020 CKD	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.34	1	Not applicable	Not applicable	Not applicable	2740
Cannon 2020 CKD	Placebo; None; Oral	BMI change	kg/m2	32.3	5.53	Not applicable	Not applicable	Not applicable	1376
Cannon 2020 CKD	Placebo; None; Oral	HbA1c change	%	8.3	0.96	Not applicable	Not applicable	Not applicable	1376
Cannon 2020 CKD high	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.2	5.5	Not applicable	Not applicable	Not applicable	1031
Cannon 2020 CKD high	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	1031

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Cannon 2020 CKD high	Placebo; None; Oral	BMI change	kg/m2	32.8	6	Not applicable	Not applicable	Not applicable	517
Cannon 2020 CKD high	Placebo; None; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	517
Cannon 2020 CKD mod	Ertugliflozin; 5-15 mg daily; Oral	BMI change	kg/m2	32.1	5.3	Not applicable	Not applicable	Not applicable	1709
Cannon 2020 CKD mod	Ertugliflozin; 5-15 mg daily; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	1709
Cannon 2020 CKD mod	Placebo; None; Oral	BMI change	kg/m2	32	5.2	Not applicable	Not applicable	Not applicable	859
Cannon 2020 CKD mod	Placebo; None; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	859
Davies 2016	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.4	5.4	Not applicable	Not applicable	Not applicable	140
Davies 2016	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.08	0.79	Not applicable	Not applicable	Not applicable	140
Davies 2016	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	93.63	17.41	Not applicable	Not applicable	Not applicable	140
Davies 2016	Placebo; None;	BMI change	kg/m2	34.5	5.4	Not applicable	Not applicable	Not applicable	137

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Davies 2016	Placebo; None; Subcutaneous	HbA1c change	%	8	0.85	Not applicable	Not applicable	Not applicable	137
Davies 2016	Placebo; None; Subcutaneous	Weight change	kg	95.63	17.65	Not applicable	Not applicable	Not applicable	137
Fioretto 2018	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	32.6	4.7	Not applicable	Not applicable	Not applicable	160
Fioretto 2018	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.33	1.08	Not applicable	Not applicable	Not applicable	160
Fioretto 2018	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	92.4	16.8	Not applicable	Not applicable	Not applicable	160
Fioretto 2018	Placebo; None; Oral	BMI change	kg/m2	31.6	5	Not applicable	Not applicable	Not applicable	161
Fioretto 2018	Placebo; None; Oral	HbA1c change	%	8.03	1.08	Not applicable	Not applicable	Not applicable	161
Fioretto 2018	Placebo; None; Oral	Weight change	kg	88.3	16.2	Not applicable	Not applicable	Not applicable	161
Galle 2012	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	31.5	4	Not applicable	Not applicable	Not applicable	20



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Galle 2012	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.4	0.9	Not applicable	Not applicable	Not applicable	20
Galle 2012	Placebo; None; Oral	BMI change	kg/m2	30.3	4.6	Not applicable	Not applicable	Not applicable	19
Galle 2012	Placebo; None; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	19
Groop 2017	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	28.3	4.8	Not applicable	Not applicable	Not applicable	182
Groop 2017	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.82	0.87	Not applicable	Not applicable	Not applicable	180
Groop 2017	Linagliptin; 5 mg daily; Oral	Weight change	kg	78.1	18.6	Not applicable	Not applicable	Not applicable	182
Groop 2017	Placebo; None; Oral	BMI change	kg/m2	28.6	4.9	Not applicable	Not applicable	Not applicable	178
Groop 2017	Placebo; None; Oral	HbA1c change	%	7.86	0.89	Not applicable	Not applicable	Not applicable	174
Groop 2017	Placebo; None; Oral	Weight change	kg	77.9	19.3	Not applicable	Not applicable	Not applicable	178
Grunberger 2018	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	31.7	5.3	Not applicable	Not applicable	Not applicable	155
Grunberger 2018	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	155

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Grunberger 2018	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	85.8	17.4	Not applicable	Not applicable	Not applicable	155
Grunberger 2018	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	32.6	6.8	Not applicable	Not applicable	Not applicable	158
Grunberger 2018	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	158
Grunberger 2018	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	89.4	22.5	Not applicable	Not applicable	Not applicable	158
Grunberger 2018	Ertugliflozin; 5 or 15 mg daily combined; Oral	BMI change	kg/m2	32.15	6.11	Not applicable	Not applicable	Not applicable	313
Grunberger 2018	Ertugliflozin; 5 or 15 mg daily combined; Oral	HbA1c change	%	8.2	0.91	Not applicable	Not applicable	Not applicable	313
Grunberger 2018	Ertugliflozin; 5 or 15 mg daily combined; Oral	Weight change	kg	87.62	20.19	Not applicable	Not applicable	Not applicable	313
Grunberger 2018	Placebo; None; Oral	BMI change	kg/m2	33.2	6.1	Not applicable	Not applicable	Not applicable	154

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Grunberger 2018	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	154
Grunberger 2018	Placebo; None; Oral	Weight change	kg	90.4	18.9	Not applicable	Not applicable	Not applicable	154
Hiramatsu 2018	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	23.8	4.8	Not applicable	Not applicable	Not applicable	32
Hiramatsu 2018	Linagliptin; 5 mg daily; Oral	HbA1c change	%	6.71	0.75	Not applicable	Not applicable	Not applicable	32
Hiramatsu 2018	Liraglutide; 0.9 mg daily; Subcutaneous	BMI change	kg/m2	23.5	3.5	Not applicable	Not applicable	Not applicable	32
Hiramatsu 2018	Liraglutide; 0.9 mg daily; Subcutaneous	HbA1c change	%	6.75	0.62	Not applicable	Not applicable	Not applicable	32
Hiramatsu 2018	Sitagliptin; 50 mg daily; Oral	BMI change	kg/m2	24.2	3.8	Not applicable	Not applicable	Not applicable	34
Hiramatsu 2018	Sitagliptin; 50 mg daily; Oral	HbA1c change	%	6.72	0.72	Not applicable	Not applicable	Not applicable	34
Kimura 2023	Dulaglutide; 0.75 mg weekly;	BMI change	kg/m2	29.2	5.9	Not applicable	Not applicable	Not applicable	53

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Kimura 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.6	Not applicable	Not applicable	Not applicable	53
Kimura 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	77.2	17.6	Not applicable	Not applicable	Not applicable	53
Kimura 2023	Semaglutide; 0.25-1 mg weekly; Subcutaneous	BMI change	kg/m2	29.4	5.9	Not applicable	Not applicable	Not applicable	54
Kimura 2023	Semaglutide; 0.25-1 mg weekly; Subcutaneous	HbA1c change	%	7.9	0.5	Not applicable	Not applicable	Not applicable	54
Kimura 2023	Semaglutide; 0.25-1 mg weekly; Subcutaneous	Weight change	kg	78.5	19	Not applicable	Not applicable	Not applicable	54
Kimura 2023 NAFLD	Dulaglutide; 0.75 mg	BMI change	kg/m2	31.4	5.6	Not applicable	Not applicable	Not applicable	13

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Kimura 2023 NAFLD	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.4	0.5	Not applicable	Not applicable	Not applicable	13
Kimura 2023 NAFLD	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	86.6	19.6	Not applicable	Not applicable	Not applicable	13
Kimura 2023 NAFLD	Semaglutide; 0.25-1 mg weekly; Subcutaneous	BMI change	kg/m2	31.6	7.4	Not applicable	Not applicable	Not applicable	18
Kimura 2023 NAFLD	Semaglutide; 0.25-1 mg weekly; Subcutaneous	HbA1c change	%	8	0.6	Not applicable	Not applicable	Not applicable	18
Kimura 2023 NAFLD	Semaglutide; 0.25-1 mg weekly; Subcutaneous	Weight change	kg	85.5	25.8	Not applicable	Not applicable	Not applicable	18

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kohan 2014	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.22	0.98	Not applicable	Not applicable	Not applicable	85
Kohan 2014	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	93.2	17.3	Not applicable	Not applicable	Not applicable	85
Kohan 2014	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.3	1.04	Not applicable	Not applicable	Not applicable	83
Kohan 2014	Dapagliflozin; 5 mg daily; Oral	Weight change	kg	95.2	20.9	Not applicable	Not applicable	Not applicable	83
Kohan 2014	Dapagliflozin; 5-10 mg daily combined; Oral	HbA1c change	%	8.26	1.01	Not applicable	Not applicable	Not applicable	168
Kohan 2014	Dapagliflozin; 5-10 mg daily combined; Oral	Weight change	kg	94.19	19.19	Not applicable	Not applicable	Not applicable	168
Kohan 2014	Placebo; None; Oral	HbA1c change	%	8.53	1.28	Not applicable	Not applicable	Not applicable	84
Kohan 2014	Placebo; None; Oral	Weight change	kg	89.6	20	Not applicable	Not applicable	Not applicable	84
Kothny 2015	Sitagliptin; 25 mg daily; Oral	BMI change	kg/m2	33.8	4.8	Not applicable	Not applicable	Not applicable	65

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kothny 2015	Sitagliptin; 25 mg daily; Oral	HbA1c change	%	7.8	1.1	Not applicable	Not applicable	Not applicable	65
Kothny 2015	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	32.7	5	Not applicable	Not applicable	Not applicable	83
Kothny 2015	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	7.5	0.9	Not applicable	Not applicable	Not applicable	83
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	BMI change	kg/m2	25.2	3.6	Not applicable	Not applicable	Not applicable	29
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	HbA1c change	%	9.3	1.5	Not applicable	Not applicable	Not applicable	29
Li 2014C	Glimepiride; 1-4 mg daily titrated; Oral	Weight change	kg	66.2	16.3	Not applicable	Not applicable	Not applicable	29
Li 2014C	Insulin type unspecified; As required; Subcutaneous	BMI change	kg/m2	25.4	3.7	Not applicable	Not applicable	Not applicable	26
Li 2014C	Insulin type unspecified; As required; Subcutaneous	HbA1c change	%	9.4	1.4	Not applicable	Not applicable	Not applicable	26

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Li 2014C	Insulin type unspecified; As required; Subcutaneous	Weight change	kg	67.2	15.9	Not applicable	Not applicable	Not applicable	26
Lukashevich 2011 severe renal impairment	Placebo; None; Oral	BMI change	kg/m2	29.5	5	Not applicable	Not applicable	Not applicable	97
Lukashevich 2011 severe renal impairment	Placebo; None; Oral	HbA1c change	%	7.7	1	Not applicable	Not applicable	Not applicable	97
Lukashevich 2011 severe renal impairment	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	30.2	5.6	Not applicable	Not applicable	Not applicable	124
Lukashevich 2011 severe renal impairment	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	7.7	1	Not applicable	Not applicable	Not applicable	124
McGill 2013	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	32.3	31.7	Not applicable	Not applicable	Not applicable	68
McGill 2013	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	68



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
McGill 2013	Linagliptin; 5 mg daily; Oral	Weight change	kg	89.9	19	Not applicable	Not applicable	Not applicable	68
McGill 2013	Placebo; None; Oral	BMI change	kg/m2	31.7	5.9	Not applicable	Not applicable	Not applicable	65
McGill 2013	Placebo; None; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	65
McGill 2013	Placebo; None; Oral	Weight change	kg	85.7	17.6	Not applicable	Not applicable	Not applicable	65
Moeinzadeh 2021	Linagliptin; 5 mg daily; Oral	Weight change	kg	75.77	15.75	Not applicable	Not applicable	Not applicable	62
Moeinzadeh 2021	Placebo; None; Oral	Weight change	kg	73.49	11.97	Not applicable	Not applicable	Not applicable	59
Mosenzon 2019	Placebo; None; Oral	BMI change	kg/m2	32.6	6.5	Not applicable	Not applicable	Not applicable	161
Mosenzon 2019	Placebo; None; Oral	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	161
Mosenzon 2019	Placebo; None; Oral	Weight change	kg	90.4	17.5	Not applicable	Not applicable	Not applicable	161
Mosenzon 2019	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	32.2	5.4	Not applicable	Not applicable	Not applicable	163
Mosenzon 2019	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	163

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Mosenzon 2019	Semaglutide; 14 mg daily; Oral	Weight change	kg	91.3	17.8	Not applicable	Not applicable	Not applicable	163
Nowicki 2011A	Placebo; None; Oral	BMI change	kg/m2	30.2	6.8	Not applicable	Not applicable	Not applicable	85
Nowicki 2011A	Placebo; None; Oral	HbA1c change	%	8.1	1.09	0.12	Not applicable	Not applicable	83
Nowicki 2011A	Placebo; None; Oral	Weight change	kg	82.2	14.4	Not applicable	Not applicable	Not applicable	85
Nowicki 2011A	Saxagliptin; 2.5 mg daily; Oral	BMI change	kg/m2	31.2	6.1	Not applicable	Not applicable	Not applicable	85
Nowicki 2011A	Saxagliptin; 2.5 mg daily; Oral	HbA1c change	%	8.44	1.17	0.13	Not applicable	Not applicable	81
Nowicki 2011A	Saxagliptin; 2.5 mg daily; Oral	Weight change	kg	83.6	15.7	Not applicable	Not applicable	Not applicable	85
Perkovic 2019	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	31.4	6.2	Not applicable	Not applicable	Not applicable	2202
Perkovic 2019	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.3	1.3	Not applicable	Not applicable	Not applicable	2202
Perkovic 2019	Placebo; None; Oral	BMI change	kg/m2	31.3	6.2	Not applicable	Not applicable	Not applicable	2199
Perkovic 2019	Placebo; None; Oral	HbA1c change	%	8.3	1.3	Not applicable	Not applicable	Not applicable	2199

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Perkovic 2019 HF	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.4	1.3	Not applicable	Not applicable	Not applicable	329
Perkovic 2019 HF	Placebo; None; Oral	HbA1c change	%	8.4	1.4	Not applicable	Not applicable	Not applicable	323
Perkovic 2019 no HF	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.3	1.3	Not applicable	Not applicable	Not applicable	1973
Perkovic 2019 no HF	Placebo; None; Oral	HbA1c change	%	8.2	1.3	Not applicable	Not applicable	Not applicable	1876
Perkovic 2024	Placebo; None; Subcutaneous	BMI change	kg/m2	32	6.5	Not applicable	Not applicable	Not applicable	1766
Perkovic 2024	Placebo; None; Subcutaneous	HbA1c change	%	7.8	1.3	Not applicable	Not applicable	Not applicable	1766
Perkovic 2024	Placebo; None; Subcutaneous	Weight change	kg	89.8	21.2	Not applicable	Not applicable	Not applicable	1766
Perkovic 2024	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	31.9	6.1	Not applicable	Not applicable	Not applicable	1767
Perkovic 2024	Semaglutide; 1 mg weekly;	HbA1c change	%	7.8	1.3	Not applicable	Not applicable	Not applicable	1767

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Perkovic 2024	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	89.5	19.8	Not applicable	Not applicable	Not applicable	1767
Pollock 2019	Dapagliflozin + Saxagliptin; 10 mg + 2.5 mg daily; Oral	BMI change	kg/m2	30.81	5.4	Not applicable	Not applicable	Not applicable	155
Pollock 2019	Dapagliflozin + Saxagliptin; 10 mg + 2.5 mg daily; Oral	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	155
Pollock 2019	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	30.19	5.3	Not applicable	Not applicable	Not applicable	145
Pollock 2019	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.44	1	Not applicable	Not applicable	Not applicable	145
Pollock 2019	Placebo; None; Oral	BMI change	kg/m2	30.34	5.6	Not applicable	Not applicable	Not applicable	148
Pollock 2019	Placebo; None; Oral	HbA1c change	%	8.57	1.2	Not applicable	Not applicable	Not applicable	148
Raman 2022	Empagliflozin; 10 mg once daily; Oral	HbA1c change	%	8.47	1.23	Not applicable	Not applicable	Not applicable	52

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Raman 2022	Linagliptin; 5 mg once daily; Oral	HbA1c change	%	8.42	1.12	Not applicable	Not applicable	Not applicable	55
Takahashi 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	28.1	8.32	1.53	24	30	32
Takahashi 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	7.8	1	Not applicable	Not applicable	Not applicable	32
Takahashi 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	73.4	28.57	5.26	63.3	83.9	32
Takahashi 2023	Liraglutide; 0.9-1.8 mg daily; Subcutaneous	BMI change	kg/m2	29.8	5.03	1.28	27	32	18
Takahashi 2023	Liraglutide; 0.9-1.8 mg daily; Subcutaneous	HbA1c change	%	7.8	1	Not applicable	Not applicable	Not applicable	18

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Takahashi 2023	Liraglutide; 0.9-1.8 mg daily; Subcutaneous	Weight change	kg	83.9	21.3	Not applicable	Not applicable	Not applicable	18
Takahashi 2023	Semaglutide; Continue dulaglutide or switch to 0.25-1.0 mg weekly; Oral	BMI change	kg/m2	26.9	9.54	1.79	24	31	31
Takahashi 2023	Semaglutide; Continue dulaglutide or switch to 0.25-1.0 mg weekly; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	31
Takahashi 2023	Semaglutide; Continue dulaglutide or switch to 0.25-1.0 mg weekly; Oral	Weight change	kg	73.5	46.76	8.75	61.3	95.6	31
Takahashi 2023	Semaglutide; Continue liraglutide or switch to 0.25-1.0 mg weekly; Oral	BMI change	kg/m2	30.1	9.34	2.3	27	36	19

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Takahashi 2023	Semaglutide; Continue liraglutide or switch to 0.25-1.0 mg weekly; Oral	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	19
Takahashi 2023	Semaglutide; Continue liraglutide or switch to 0.25-1.0 mg weekly; Oral	Weight change	kg	86.2	18.3	Not applicable	Not applicable	Not applicable	19
Tuttle 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	33	5.5	Not applicable	Not applicable	Not applicable	190
Tuttle 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.6	1.1	Not applicable	Not applicable	Not applicable	190
Tuttle 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	90.9	18.3	Not applicable	Not applicable	Not applicable	190
Tuttle 2018	Dulaglutide; 0.75-1.5 mg	BMI change	kg/m2	32.55	5.17	Not applicable	Not applicable	Not applicable	382

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Tuttle 2018	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	382
Tuttle 2018	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	89.49	17.22	Not applicable	Not applicable	Not applicable	382
Tuttle 2018	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.1	4.8	Not applicable	Not applicable	Not applicable	192
Tuttle 2018	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.6	0.9	Not applicable	Not applicable	Not applicable	192
Tuttle 2018	Dulaglutide; 1.5 mg weekly;	Weight change	kg	88.1	16	Not applicable	Not applicable	Not applicable	192



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Tuttle 2018	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	32.4	5.3	Not applicable	Not applicable	Not applicable	194
Tuttle 2018	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	194
Tuttle 2018	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	88.2	18.5	Not applicable	Not applicable	Not applicable	194
Wada 2022	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	26.7	4.4	Not applicable	Not applicable	Not applicable	154
Wada 2022	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.75	1.1	Not applicable	Not applicable	Not applicable	154
Wada 2022	Placebo; None; Oral	BMI change	kg/m2	27.1	4.5	Not applicable	Not applicable	Not applicable	154
Wada 2022	Placebo; None; Oral	HbA1c change	%	7.77	1.05	Not applicable	Not applicable	Not applicable	154
Wang 2020B	Exenatide; 20 mcg daily;	BMI change	kg/m2	26.1	3.4	Not applicable	Not applicable	Not applicable	46

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wang 2020B	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	9.1	1.4	Not applicable	Not applicable	Not applicable	46
Wang 2020B	Insulin lispro; Treat-to-target; Subcutaneous	BMI change	kg/m2	23.5	3.1	Not applicable	Not applicable	Not applicable	46
Wang 2020B	Insulin lispro; Treat-to-target; Subcutaneous	HbA1c change	%	9	1.3	Not applicable	Not applicable	Not applicable	46
Yale 2013	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	32.4	5.5	Not applicable	Not applicable	Not applicable	90
Yale 2013	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	90
Yale 2013	Canagliflozin; 100 mg daily; Oral	Weight change	kg	90.5	18.4	Not applicable	Not applicable	Not applicable	90
Yale 2013	Canagliflozin; 100-300 mg daily	BMI change	kg/m2	32.9	6.04	Not applicable	Not applicable	Not applicable	179

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Yale 2013	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.95	0.85	Not applicable	Not applicable	Not applicable	179
Yale 2013	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	90.35	18.25	Not applicable	Not applicable	Not applicable	179
Yale 2013	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	33.4	6.5	Not applicable	Not applicable	Not applicable	89
Yale 2013	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	89
Yale 2013	Canagliflozin; 300 mg daily; Oral	Weight change	kg	90.2	18.1	Not applicable	Not applicable	Not applicable	89
Yale 2013	Placebo; None; Oral	BMI change	kg/m2	33.1	6.5	Not applicable	Not applicable	Not applicable	90
Yale 2013	Placebo; None; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	90
Yale 2013	Placebo; None; Oral	Weight change	kg	92.8	17.4	Not applicable	Not applicable	Not applicable	90

**Table 4: Baseline characteristic health-related quality of life values for studies included in the review for subsequent therapy, model 5 (people with high risk of cardiovascular disease)**

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ando 2021	Canagliflozin; 100 mg daily; Oral	Health-related quality of life - overall	DTR-QoL	Higher better	54.6	18.6	Not applicable	Not applicable	Not applicable	17
Ando 2021	Liraglutide; 0.9 mg daily; Subcutaneous	Health-related quality of life - overall	DTR-QoL	Higher better	59.9	15.1	Not applicable	Not applicable	Not applicable	17
Bergental 2010	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life	EQ-5D Index score	Higher better	0.77	Not applicable	Not applicable	Not applicable	Not applicable	129
Bergental 2010	Pioglitazone; 45 mg weekly; Oral	Health-related quality of life	EQ-5D Index score	Higher better	0.82	Not applicable	Not applicable	Not applicable	Not applicable	130
Bergental 2010	Sitagliptin; 100 mg daily; Oral	Health-related quality of life	EQ-5D Index score	Higher better	0.78	Not applicable	Not applicable	Not applicable	Not applicable	139
Bolinder 2012	Dapagliflozin; 10 mg daily; Oral	Health-related quality of life - overall	EQ-5D index	Higher better	0.85	0.16	Not applicable	Not applicable	Not applicable	85

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bolinder 2012	Dapagliflozin; 10 mg daily; Oral	Health-related quality of life - overall	EQ-5D; Visual analogue scale (VAS)	Higher better	72.5	19.48	Not applicable	Not applicable	Not applicable	85
Bolinder 2012	Placebo; None; Oral	Health-related quality of life - overall	EQ-5D index	Higher better	0.82	0.15	Not applicable	Not applicable	Not applicable	88
Bolinder 2012	Placebo; None; Oral	Health-related quality of life - overall	EQ-5D; Visual analogue scale (VAS)	Higher better	73.7	15.57	Not applicable	Not applicable	Not applicable	88
Buse 2009	Exenatide; 20 mcg daily; Subcutaneous	Health-related quality of life - overall	DTSQs	Higher better	4.6	1.4	Not applicable	Not applicable	Not applicable	187
Buse 2009	Liraglutide; 1.8 mg daily; Subcutaneous	Health-related quality of life - overall	DTSQs	Higher better	4.4	1.7	Not applicable	Not applicable	Not applicable	188
Davies 2021	Placebo; None; Subcutaneous	Health-related quality of life - subscale mental component	SF-36v2 MCS -3.83 to 78.75 (reported as norm-based scores)	Higher better	56.2	5.5	Not applicable	Not applicable	Not applicable	394

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2021	Placebo; None; Subcutaneous	Health-related quality of life - subscale physical component	SF-36v2 PCS 6.11 to 79.67 (reported as norm-based scores)	Higher better	49.9	8	Not applicable	Not applicable	Not applicable	394
Davies 2021	Semaglutide; 1 mg weekly; Subcutaneous	Health-related quality of life - subscale mental component	SF-36v2 MCS -3.83 to 78.75 (reported as norm-based scores)	Higher better	55.9	6	Not applicable	Not applicable	Not applicable	396
Davies 2021	Semaglutide; 1 mg weekly; Subcutaneous	Health-related quality of life - subscale physical component	SF-36v2 PCS 6.11 to 79.67 (reported as norm-based scores)	Higher better	50.7	7.3	Not applicable	Not applicable	Not applicable	396
Davies 2021	Semaglutide; 2.4 mg weekly; Subcutaneous	Health-related quality of life - subscale mental component	SF-36v2 MCS -3.83 to 78.75 (reported as norm-based scores)	Higher better	55.6	6.1	Not applicable	Not applicable	Not applicable	397
Davies 2021	Semaglutide; 2.4 mg	Health-related	SF-36v2 PCS 6.11 to	Higher better	49.8	8.2	Not applicable	Not applicable	Not applicable	397

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous	quality of life - subscale physical component	79.67 (reported as norm-based scores)							
Diamant 2014	Exenatide; 10-20 mcg daily; Subcutaneous	Health-related quality of life - overall	DTSQ	Higher better	26.7	6.96	Not applicable	Not applicable	Not applicable	247
Diamant 2014	Insulin lispro; Titrated; Subcutaneous	Health-related quality of life - overall	DTSQ	Higher better	27.3	6.43	Not applicable	Not applicable	Not applicable	263
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life - overall	IQWOL total	Higher better	84.5	18.1	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life - subscale ease and convenience	DMSAT; Ease and convenience	Higher better	67.9	17.4	Not applicable	Not applicable	Not applicable	181

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life - subscale lifestyle impact	DMSAT; lifestyle burdens	Higher better	62.5	20.4	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life - subscale medical control	DMSAT; medical control	Higher better	45.3	21.1	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Health-related quality of life - subscale well being	DMSAT; well-being	Higher better	60.6	22.9	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Placebo; None; Oral	Health-related quality of life - overall	IQWOL total	Higher better	81.9	17.6	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Placebo; None; Oral	Health-related quality of life - subscale ease and	DMSAT; Ease and convenience	Higher better	68.6	24.8	Not applicable	Not applicable	Not applicable	61



Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
		convenience								
Gadde 2017	Placebo; None; Oral	Health-related quality of life - subscale lifestyle impact	DMSAT; lifestyle burdens	Higher better	61.3	23.1	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Placebo; None; Oral	Health-related quality of life - subscale medical control	DMSAT; medical control	Higher better	47	26.7	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Placebo; None; Oral	Health-related quality of life - subscale well being	DMSAT; well-being	Higher better	61.1	22.8	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - overall	IQWOL total	Higher better	86.4	16.6	Not applicable	Not applicable	Not applicable	122
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Health-related quality of life -	DMSAT; Ease and convenience	Higher better	69.9	19.9	Not applicable	Not applicable	Not applicable	122

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
		subscale ease and convenience								
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - subscale lifestyle impact	DMSAT; lifestyle burdens	Higher better	65.2	18.8	Not applicable	Not applicable	Not applicable	122
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - subscale medical control	DMSAT; medical control	Higher better	55.3	23.3	Not applicable	Not applicable	Not applicable	122
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - subscale well being	DMSAT; well-being	Higher better	64.8	23.1	Not applicable	Not applicable	Not applicable	122
Group 2022	Glimepiride; 8 mg daily titrated; Oral	Health-related quality of life - subscale	SF-36 0-100	Higher better	52.6	8.9	Not applicable	Not applicable	Not applicable	1222

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
		mental component								
Group 2022	Glimepiride; 8 mg daily titrated; Oral	Health-related quality of life - subscale physical component	SF-36 0-100	Higher better	46.4	9.4	Not applicable	Not applicable	Not applicable	1222
Group 2022	Insulin glargine; Titrated; Subcutaneous	Health-related quality of life - subscale mental component	SF-36 0-100	Higher better	52.5	8.9	Not applicable	Not applicable	Not applicable	1209
Group 2022	Insulin glargine; Titrated; Subcutaneous	Health-related quality of life - subscale physical component	SF-36 0-100	Higher better	46.1	9.5	Not applicable	Not applicable	Not applicable	1209
Group 2022	Liraglutide; 1.8 mg daily titrated; Subcutaneous	Health-related quality of life - subscale mental component	SF-36 0-100	Higher better	52.4	9.1	Not applicable	Not applicable	Not applicable	1218

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Group 2022	Liraglutide; 1.8 mg daily titrated; Subcutaneous	Health-related quality of life - subscale physical component	SF-36 0-100	Higher better	45.8	9.9	Not applicable	Not applicable	Not applicable	1218
Group 2022	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - subscale mental component	SF-36 0-100	Higher better	52.3	8.9	Not applicable	Not applicable	Not applicable	1236
Group 2022	Sitagliptin; 100 mg daily; Oral	Health-related quality of life - subscale physical component	SF-36 0-100	Higher better	46	9.3	Not applicable	Not applicable	Not applicable	1236
Heine 2005	Exenatide; 20 mcg daily; Subcutaneous	Health-related quality of life - overall	EQ-5D	Higher better	0.82	0.22	Not applicable	Not applicable	Not applicable	228
Heine 2005	Insulin glargine; Titrated;	Health-related quality of life - overall	EQ-5D	Higher better	0.84	0.22	Not applicable	Not applicable	Not applicable	227

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous									
Jiang 2021B	Dapagliflozin; 10 mg daily; Oral	Health-related quality of life - overall	DTSQ	Higher better	17.4	3.1	Not applicable	Not applicable	Not applicable	79
Jiang 2021B	Liraglutide; 1.8 mg daily titrated; Subcutaneous	Health-related quality of life - overall	DTSQ	Higher better	16.5	3.4	Not applicable	Not applicable	Not applicable	77
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	Health-related quality of life - subscale barriers to activity	DHP - Barriers to activity	Higher better	73.4	15.8	Not applicable	Not applicable	Not applicable	28
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	Health-related quality of life - subscale disinhibited eating	DHP - Disinhibited eating	Higher better	64.8	22.3	Not applicable	Not applicable	Not applicable	28
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	Health-related quality of life - subscale	DHP - Psychological distress	Higher better	73.7	14.5	Not applicable	Not applicable	Not applicable	28

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
		psychological distress								
Joubert 2021	Placebo; None; Subcutaneous	Health-related quality of life - subscale barriers to activity	DHP - Barriers to activity	Higher better	72.6	17.5	Not applicable	Not applicable	Not applicable	18
Joubert 2021	Placebo; None; Subcutaneous	Health-related quality of life - subscale disinhibited eating	DHP - Disinhibited eating	Higher better	47.8	24.4	Not applicable	Not applicable	Not applicable	18
Joubert 2021	Placebo; None; Subcutaneous	Health-related quality of life - subscale psychological distress	DHP - Psychological distress	Higher better	69.3	16.6	Not applicable	Not applicable	Not applicable	18
Lingvay 2016	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	Health-related quality of life - subscale mental component	SF-36 MCS	Higher better	46.7	11.4	Not applicable	45.4	48.1	278

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lingvay 2016	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	Health-related quality of life - subscale physical component	SF-36 PCS	Higher better	47.4	8.9	Not applicable	46.4	48.5	278
Lingvay 2016	Insulin glargine; Titrated; Subcutaneous	Health-related quality of life - subscale mental component	SF-36 MCS	Higher better	48.1	10.2	Not applicable	46.9	49.3	279
Lingvay 2016	Insulin glargine; Titrated; Subcutaneous	Health-related quality of life - subscale physical component	SF-36 PCS	Higher better	47.7	8.5	Not applicable	46.7	48.7	279
Marso 2016B	Semaglutide; 0.5 mg weekly; Subcutaneous	Health-related quality of life - subscale mental component	SF36 MCS	Higher better	47.9	Not applicable	Not applicable	Not applicable	Not applicable	1648
Marso 2016B	Semaglutide; 0.5 mg	Health-related	SF36 PCS	Higher better	42.3	Not applicable	Not applicable	Not applicable	Not applicable	1648

Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous	quality of life - subscale physical component								
Marso 2016B	Semaglutide; 1 mg weekly; Subcutaneous	Health-related quality of life - subscale mental component	SF36 MCS	Higher better	48.2	Not applicable	Not applicable	Not applicable	Not applicable	1649
Marso 2016B	Semaglutide; 1 mg weekly; Subcutaneous	Health-related quality of life - subscale physical component	SF36 PCS	Higher better	41.4	Not applicable	Not applicable	Not applicable	Not applicable	1649
Ridderstrale 2014	Empagliflozin; 25 mg daily; Oral	Health-related quality of life - overall	DTSQ	Higher better	30.6	5.5	Not applicable	Not applicable	Not applicable	765
Ridderstrale 2014	Glimepiride; 1-4 mg daily; Oral	Health-related quality of life - overall	DTSQ	Higher better	30.4	5.4	Not applicable	Not applicable	Not applicable	780
Yabe 2020	Dulaglutide; 0.75 mg weekly;	Health-related	DTR-QoL	Higher better	71.9	16.2	Not applicable	Not applicable	Not applicable	65



Study name	Drug details	Outcome	Scale	Polarity	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous	quality of life - overall								
Yabe 2020	Semaglutide; 14 mg daily; Oral	Health-related quality of life - overall	DTR-QoL	Higher better	71.2	14.1	Not applicable	Not applicable	Not applicable	130
Yabe 2020	Semaglutide; 3 mg daily; Oral	Health-related quality of life - overall	DTR-QoL	Higher better	71.5	15.7	Not applicable	Not applicable	Not applicable	131
Yabe 2020	Semaglutide; 3-14 mg daily combined; Oral	Health-related quality of life - overall	DTR-QoL	Higher better	71.47	14.85	Not applicable	Not applicable	Not applicable	393
Yabe 2020	Semaglutide; 7 mg daily; Oral	Health-related quality of life - overall	DTR-QoL	Higher better	71.7	14.8	Not applicable	Not applicable	Not applicable	132
Yabe 2023	Empagliflozin; 10 mg daily; Oral	Health-related quality of life - overall	EQ-5D-5L	Higher better	0.92	0.12	0.01	Not applicable	Not applicable	64
Yabe 2023	Placebo; None; Oral	Health-related quality of life - overall	EQ-5D-5L	Higher better	0.94	0.12	0.01	Not applicable	Not applicable	63

**Table 5: Baseline characteristic HbA1c, weight and BMI values for studies included in the review for subsequent therapy, model 5 (people with high risk of cardiovascular disease)**

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Abdul-Ghani 2017	Insulin glargine; None; Subcutaneous	HbA1c change	%	10	0.5	Not applicable	Not applicable	Not applicable	108
Abdul-Ghani 2017	Insulin glargine; None; Subcutaneous	Weight change	kg/m2	30.5	0.5	Not applicable	Not applicable	Not applicable	108
Abdul-Ghani 2017	Pioglitazone + Exenatide; 15 mg weekly + 2 mg daily; Oral + Subcutaneous	HbA1c change	%	10	0.6	Not applicable	Not applicable	Not applicable	123
Abdul-Ghani 2017	Pioglitazone + Exenatide; 15 mg weekly + 2 mg daily; Oral +	Weight change	kg/m2	31.1	0.5	Not applicable	Not applicable	Not applicable	123

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Abreu 2019	Insulin aspart; Initially 0.3 units/kg/day each meal, titrated up; Subcutaneous	BMI change	kg/m2	38.3	11	Not applicable	Not applicable	Not applicable	61
Abreu 2019	Insulin aspart; Initially 0.3 units/kg/day each meal, titrated up; Subcutaneous	HbA1c change	%	12	1.5	Not applicable	Not applicable	Not applicable	61
Abreu 2019	Insulin aspart; Initially 0.3 units/kg/day each meal, titrated up; Subcutaneous	Weight change	kg	105.5	32.5	Not applicable	Not applicable	Not applicable	61
Abreu 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	36.1	9.5	Not applicable	Not applicable	Not applicable	59

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Abreu 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	12.1	1.4	Not applicable	Not applicable	Not applicable	59
Abreu 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	96.7	31.2	Not applicable	Not applicable	Not applicable	59
Ahmann 2015	Liraglutide; 1.8 mg weekly; Subcutaneous	BMI change	kg/m2	32.3	5.6	Not applicable	Not applicable	Not applicable	225
Ahmann 2015	Liraglutide; 1.8 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	225
Ahmann 2015	Liraglutide; 1.8 mg weekly; Subcutaneous	Weight change	kg	90.2	20	Not applicable	Not applicable	Not applicable	225
Ahmann 2015	Placebo; None; Subcutaneous	BMI change	kg/m2	32.2	5.7	Not applicable	Not applicable	Not applicable	225
Ahmann 2015	Placebo; None;	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	225

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Ahmann 2015	Placebo; None; Subcutaneous	Weight change	kg	91.9	19.3	Not applicable	Not applicable	Not applicable	225
Ahren 2004	Placebo; None; Oral	BMI change	kg/m2	30.2	3.6	Not applicable	Not applicable	Not applicable	51
Ahren 2004	Placebo; None; Oral	HbA1c change	%	7.8	0.7	Not applicable	Not applicable	Not applicable	51
Ahren 2004	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	29.4	3.6	Not applicable	Not applicable	Not applicable	56
Ahren 2004	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	7.7	0.6	Not applicable	Not applicable	Not applicable	56
Ahren 2013	Lixisenatide; 20 mcg daily AM; Subcutaneous	BMI change	kg/m2	33.2	6.9	Not applicable	Not applicable	Not applicable	255
Ahren 2013	Lixisenatide; 20 mcg daily AM; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	255
Ahren 2013	Lixisenatide; 20 mcg daily AM;	Weight change	kg	90.1	21	Not applicable	Not applicable	Not applicable	255

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Ahren 2013	Lixisenatide; 20 mcg daily combined; Subcutaneous	BMI change	kg/m2	33.1	6.5	Not applicable	Not applicable	Not applicable	170
Ahren 2013	Lixisenatide; 20 mcg daily combined; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	170
Ahren 2013	Lixisenatide; 20 mcg daily combined; Subcutaneous	Weight change	kg	90.4	20.1	Not applicable	Not applicable	Not applicable	170
Ahren 2013	Lixisenatide; 20 mcg daily PM; Subcutaneous	BMI change	kg/m2	32.5	5.8	Not applicable	Not applicable	Not applicable	255
Ahren 2013	Lixisenatide; 20 mcg daily PM; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	255
Ahren 2013	Lixisenatide; 20 mcg daily	Weight change	kg	89	20.7	Not applicable	Not applicable	Not applicable	255

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	PM; Subcutaneous								
Ahren 2014	Glimepiride; 2-4 mg daily; Oral	BMI change	kg/m2	32.5	5.5	Not applicable	Not applicable	Not applicable	307
Ahren 2014	Glimepiride; 2-4 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	307
Ahren 2014	Glimepiride; 2-4 mg daily; Oral	Weight change	kg	91.8	20.4	Not applicable	Not applicable	Not applicable	307
Ahren 2014	Placebo; None; Subcutaneous	BMI change	kg/m2	32.7	5.6	Not applicable	Not applicable	Not applicable	302
Ahren 2014	Placebo; None; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	302
Ahren 2014	Placebo; None; Subcutaneous	Weight change	kg	89.6	18.4	Not applicable	Not applicable	Not applicable	302
Ahren 2014	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.5	5.4	Not applicable	Not applicable	Not applicable	302

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ahren 2014	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	302
Ahren 2014	Sitagliptin; 100 mg daily; Oral	Weight change	kg	90.3	19.1	Not applicable	Not applicable	Not applicable	302
Ahren 2017	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.4	6.2	Not applicable	Not applicable	Not applicable	409
Ahren 2017	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	409
Ahren 2017	Semaglutide; 0.5 mg weekly; Subcutaneous	Weight change	kg	89.9	20.4	Not applicable	Not applicable	Not applicable	409
Ahren 2017	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.5	6.6	Not applicable	Not applicable	Not applicable	409
Ahren 2017	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	409



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ahren 2017	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	89.2	20.7	Not applicable	Not applicable	Not applicable	409
Ahren 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.5	5.8	Not applicable	Not applicable	Not applicable	407
Ahren 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	407
Ahren 2017	Sitagliptin; 100 mg daily; Oral	Weight change	kg	89.3	19.7	Not applicable	Not applicable	Not applicable	407
Ando 2021	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	27	3.3	Not applicable	Not applicable	Not applicable	17
Ando 2021	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	6.8	0.7	Not applicable	Not applicable	Not applicable	17
Ando 2021	Canagliflozin; 100 mg daily; Oral	Weight change	kg	76.7	7.5	Not applicable	Not applicable	Not applicable	17
Ando 2021	Liraglutide; 0.9 mg daily; Subcutaneous	BMI change	kg/m2	26.8	3.1	Not applicable	Not applicable	Not applicable	17
Ando 2021	Liraglutide; 0.9 mg daily;	HbA1c change	%	6.4	0.6	Not applicable	Not applicable	Not applicable	17

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Ando 2021	Liraglutide; 0.9 mg daily; Subcutaneous	Weight change	kg	73.7	12.2	Not applicable	Not applicable	Not applicable	17
Apovian 2010	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33.6	3.7	Not applicable	Not applicable	Not applicable	96
Apovian 2010	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	96
Apovian 2010	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	94.9	16.5	Not applicable	Not applicable	Not applicable	96
Apovian 2010	Placebo; None; Subcutaneous	BMI change	kg/m2	33.9	4.3	Not applicable	Not applicable	Not applicable	98
Apovian 2010	Placebo; None; Subcutaneous	HbA1c change	%	7.5	0.8	Not applicable	Not applicable	Not applicable	98
Apovian 2010	Placebo; None;	Weight change	kg	96.2	15.6	Not applicable	Not applicable	Not applicable	98

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Araki 2015A	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	24.6	3.8	Not applicable	Not applicable	Not applicable	136
Araki 2015A	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.99	0.73	Not applicable	Not applicable	Not applicable	136
Araki 2015A	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	65.8	12.2	Not applicable	Not applicable	Not applicable	136
Araki 2015A	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	24.9	4.01	Not applicable	Not applicable	Not applicable	273
Araki 2015A	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.03	0.74	Not applicable	Not applicable	Not applicable	273
Araki 2015A	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	66.4	12.96	Not applicable	Not applicable	Not applicable	273
Araki 2015A	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	25.2	4.2	Not applicable	Not applicable	Not applicable	137

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Araki 2015A	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.06	0.76	Not applicable	Not applicable	Not applicable	137
Araki 2015A	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	67	13.7	Not applicable	Not applicable	Not applicable	137
Araki 2015A	Metformin type unspecified; 500-2250 mg daily; Oral	BMI change	kg/m2	25.2	3.6	Not applicable	Not applicable	Not applicable	63
Araki 2015A	Metformin type unspecified; 500-2250 mg daily; Oral	HbA1c change	%	7.93	0.79	Not applicable	Not applicable	Not applicable	63
Araki 2015A	Metformin type unspecified; 500-2250 mg daily; Oral	Weight change	kg	68.2	12.2	Not applicable	Not applicable	Not applicable	63
Araki 2015B	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	26.1	3.6	Not applicable	Not applicable	Not applicable	181
Araki 2015B	Dulaglutide; 0.75 mg weekly;	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	181

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Araki 2015B	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	70.9	13.7	Not applicable	Not applicable	Not applicable	181
Araki 2015B	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	25.9	3.9	Not applicable	Not applicable	Not applicable	180
Araki 2015B	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	180
Araki 2015B	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	71.1	13.8	Not applicable	Not applicable	Not applicable	180
Arechavaleta 2011	Glimepiride; 1-6 mg daily; Oral	BMI change	kg/m2	30.2	4.4	Not applicable	Not applicable	Not applicable	519
Arechavaleta 2011	Glimepiride; 1-6 mg daily; Oral	HbA1c change	%	7.5	0.8	Not applicable	Not applicable	Not applicable	519

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Arechavaleta 2011	Glimepiride; 1-6 mg daily; Oral	Weight change	kg	82	16.7	Not applicable	Not applicable	Not applicable	519
Arechavaleta 2011	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.7	4.5	Not applicable	Not applicable	Not applicable	516
Arechavaleta 2011	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.5	0.7	Not applicable	Not applicable	Not applicable	516
Arechavaleta 2011	Sitagliptin; 100 mg daily; Oral	Weight change	kg	80.6	15.2	Not applicable	Not applicable	Not applicable	516
Aroda 2016B	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	BMI change	kg/m2	31.3	4.3	Not applicable	Not applicable	Not applicable	367
Aroda 2016B	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	367
Aroda 2016B	Insulin glargine/Lixis enatide; Titrated;	Weight change	kg	87.7	14.5	Not applicable	Not applicable	Not applicable	367

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Aroda 2016B	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	31	4.2	Not applicable	Not applicable	Not applicable	369
Aroda 2016B	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	369
Aroda 2016B	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	87.1	14.8	Not applicable	Not applicable	Not applicable	369
Aroda 2017	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	33	6.51	Not applicable	Not applicable	Not applicable	360
Aroda 2017	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8.3	0.94	Not applicable	Not applicable	Not applicable	360
Aroda 2017	Semaglutide; 0.5 mg	Weight change	kg	94	22.48	Not applicable	Not applicable	Not applicable	360

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Aroda 2017	Semaglutide; 0.5-1.0 mg weekly combined; Subcutaneous	BMI change	kg/m2	33	6.51	Not applicable	Not applicable	Not applicable	360
Aroda 2017	Semaglutide; 0.5-1.0 mg weekly combined; Subcutaneous	HbA1c change	%	8.1	0.88	Not applicable	Not applicable	Not applicable	360
Aroda 2017	Semaglutide; 0.5-1.0 mg weekly combined; Subcutaneous	Weight change	kg	92.6	21.52	Not applicable	Not applicable	Not applicable	360
Aroda 2017	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	33.1	6.45	Not applicable	Not applicable	Not applicable	362
Aroda 2017	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.85	Not applicable	Not applicable	Not applicable	362



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Aroda 2017	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	93.7	21.39	Not applicable	Not applicable	Not applicable	362
Aroda 2019A	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32	6.2	Not applicable	Not applicable	Not applicable	506
Aroda 2019A	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	506
Aroda 2019A	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	Weight change	kg	89.7	20.5	Not applicable	Not applicable	Not applicable	506
Aroda 2019A	Insulin glargine; 10 units daily, titrated up; Subcutaneous	BMI change	kg/m2	31.9	5.8	Not applicable	Not applicable	Not applicable	506
Aroda 2019A	Insulin glargine; 10 units daily, titrated up;	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	506

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Aroda 2019A	Insulin glargine; 10 units daily, titrated up; Subcutaneous	Weight change	kg	89	20.1	Not applicable	Not applicable	Not applicable	506
Aschner 2012	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	31.1	4.9	Not applicable	Not applicable	Not applicable	227
Aschner 2012	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	227
Aschner 2012	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	83.4	18.2	Not applicable	Not applicable	Not applicable	227
Aschner 2012	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.3	4.9	Not applicable	Not applicable	Not applicable	253
Aschner 2012	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	1.1	Not applicable	Not applicable	Not applicable	253

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Aschner 2012	Sitagliptin; 100 mg daily; Oral	Weight change	kg	84.2	18.3	Not applicable	Not applicable	Not applicable	253
Attaran 2023	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	31	3.8	Not applicable	Not applicable	Not applicable	37
Attaran 2023	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.6	1.1	Not applicable	Not applicable	Not applicable	37
Attaran 2023	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	31.3	5	Not applicable	Not applicable	Not applicable	36
Attaran 2023	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	36
Ba 2017	Placebo; None; Oral	BMI change	kg/m2	25.3	3.2	Not applicable	Not applicable	Not applicable	249
Ba 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.4	3.2	Not applicable	Not applicable	Not applicable	249
Bae 2021	Empagliflozin ; 10-25 mg daily; Oral	BMI change	kg/m2	26.7	3.73	Not applicable	Not applicable	Not applicable	60
Bae 2021	Empagliflozin ; 10-25 mg daily; Oral	HbA1c change	%	7.94	0.74	Not applicable	Not applicable	Not applicable	60

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bae 2021	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	26.24	3.71	Not applicable	Not applicable	Not applicable	59
Bae 2021	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	8	0.78	Not applicable	Not applicable	Not applicable	59
Bailey 2010	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	7.92	0.82	Not applicable	Not applicable	Not applicable	135
Bailey 2010	Dapagliflozin; 2.5 mg daily; Oral	HbA1c change	%	7.99	0.9	Not applicable	Not applicable	Not applicable	137
Bailey 2010	Dapagliflozin; 2.5-10 mg daily combined; Oral	HbA1c change	%	8.03	0.91	Not applicable	Not applicable	Not applicable	409
Bailey 2010	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.17	0.96	Not applicable	Not applicable	Not applicable	137
Bailey 2010	Placebo; None; Oral	HbA1c change	%	8.11	0.96	Not applicable	Not applicable	Not applicable	137
Bailey 2016	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.2	6.2	Not applicable	Not applicable	Not applicable	204
Bailey 2016	Liraglutide; 1.8 mg daily;	HbA1c change	%	8.2	0.6	Not applicable	Not applicable	Not applicable	204

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Bailey 2016	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	91.2	19.6	Not applicable	Not applicable	Not applicable	204
Bailey 2016	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.7	6	Not applicable	Not applicable	Not applicable	202
Bailey 2016	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.3	0.6	Not applicable	Not applicable	Not applicable	202
Bailey 2016	Sitagliptin; 100 mg daily; Oral	Weight change	kg	88.9	19.8	Not applicable	Not applicable	Not applicable	202
Bajaj 2014	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	28.2	5.2	Not applicable	Not applicable	Not applicable	183
Bajaj 2014	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.39	0.84	Not applicable	Not applicable	Not applicable	183
Bajaj 2014	Placebo; None; Oral	BMI change	kg/m2	28.1	5.5	Not applicable	Not applicable	Not applicable	89
Bajaj 2014	Placebo; None; Oral	HbA1c change	%	8.47	0.78	Not applicable	Not applicable	Not applicable	89
Barnett 2012	Placebo; None; Oral	BMI change	kg/m2	31.8	4.76	Not applicable	Not applicable	Not applicable	151

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Barnett 2012	Placebo; None; Oral	HbA1c change	%	8.6	0.86	Not applicable	Not applicable	Not applicable	151
Barnett 2012	Placebo; None; Oral	Weight change	kg	86.2	16.54	Not applicable	Not applicable	Not applicable	151
Barnett 2012	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	32.6	5.65	Not applicable	Not applicable	Not applicable	304
Barnett 2012	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	304
Barnett 2012	Saxagliptin; 5 mg daily; Oral	Weight change	kg	87.7	18.57	Not applicable	Not applicable	Not applicable	304
Barnett 2013	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.6	4.7	Not applicable	Not applicable	Not applicable	162
Barnett 2013	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	162
Barnett 2013	Linagliptin; 5 mg daily; Oral	Weight change	kg	86.3	16.4	Not applicable	Not applicable	Not applicable	162
Barnett 2013	Placebo; None; Oral	BMI change	kg/m2	29.8	4.5	Not applicable	Not applicable	Not applicable	79
Barnett 2013	Placebo; None; Oral	HbA1c change	%	7.7	0.7	Not applicable	Not applicable	Not applicable	79
Barnett 2013	Placebo; None; Oral	Weight change	kg	84.4	15.3	Not applicable	Not applicable	Not applicable	79

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bergenstal 2009	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	34.2	7.1	Not applicable	Not applicable	Not applicable	124
Bergenstal 2009	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	10.2	1.52	Not applicable	Not applicable	Not applicable	124
Bergenstal 2009	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	96.6	23.9	Not applicable	Not applicable	Not applicable	124
Bergenstal 2009	Insulin aspart; Titrated; Subcutaneous	BMI change	kg/m2	33.7	7.1	Not applicable	Not applicable	Not applicable	124
Bergenstal 2009	Insulin aspart; Titrated; Subcutaneous	HbA1c change	%	10.1	1.79	Not applicable	Not applicable	Not applicable	124
Bergenstal 2009	Insulin aspart; Titrated;	Weight change	kg	96.3	24.7	Not applicable	Not applicable	Not applicable	124

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Bergental 2010	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	160
Bergental 2010	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.6	1.2	Not applicable	Not applicable	Not applicable	160
Bergental 2010	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	89	20	Not applicable	Not applicable	Not applicable	160
Bergental 2010	Pioglitazone; 45 mg weekly; Oral	BMI change	kg/m2	32	6	Not applicable	Not applicable	Not applicable	165
Bergental 2010	Pioglitazone; 45 mg weekly; Oral	HbA1c change	%	8.5	1.1	Not applicable	Not applicable	Not applicable	165
Bergental 2010	Pioglitazone; 45 mg weekly; Oral	Weight change	kg	88	20	Not applicable	Not applicable	Not applicable	165
Bergental 2010	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	166
Bergental 2010	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	1.2	Not applicable	Not applicable	Not applicable	166



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bergental 2010	Sitagliptin; 100 mg daily; Oral	Weight change	kg	87	20	Not applicable	Not applicable	Not applicable	166
Berndt-Zipfel 2013	Glimepiride; Titrated; Oral	BMI change	kg/m2	33.3	6.7	Not applicable	Not applicable	Not applicable	22
Berndt-Zipfel 2013	Glimepiride; Titrated; Oral	HbA1c change	%	7.28	0.59	Not applicable	Not applicable	Not applicable	22
Berndt-Zipfel 2013	Glimepiride; Titrated; Oral	Weight change	kg	93.7	19.6	Not applicable	Not applicable	Not applicable	22
Berndt-Zipfel 2013	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	34.6	5.9	Not applicable	Not applicable	Not applicable	22
Berndt-Zipfel 2013	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.41	0.74	Not applicable	Not applicable	Not applicable	22
Berndt-Zipfel 2013	Vildagliptin; 100 mg daily; Oral	Weight change	kg	99.3	14.9	Not applicable	Not applicable	Not applicable	22
Billings 2018	IDegLira; 16-50 units/0.58-1.8 mg daily; Subcutaneous	BMI change	kg/m2	31.7	4.4	Not applicable	Not applicable	Not applicable	252
Billings 2018	IDegLira; 16-50 units/0.58-1.8 mg daily; Subcutaneous	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	252

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Billings 2018	IDegLira; 16-50 units/0.58-1.8 mg daily; Subcutaneous	Weight change	kg	87.2	16	Not applicable	Not applicable	Not applicable	252
Billings 2018	Insulin glargine + insulin aspart; 4 units each meal or pre-trial dose, titrated up; Subcutaneous	BMI change	kg/m2	31.7	4.5	Not applicable	Not applicable	Not applicable	254
Billings 2018	Insulin glargine + insulin aspart; 4 units each meal or pre-trial dose, titrated up; Subcutaneous	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	254
Billings 2018	Insulin glargine + insulin aspart; 4 units each	Weight change	kg	88.2	17.2	Not applicable	Not applicable	Not applicable	254

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	meal or pre-trial dose, titrated up; Subcutaneous								
Bizino 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.6	4.4	Not applicable	Not applicable	Not applicable	23
Bizino 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	23
Bizino 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	98	14	Not applicable	Not applicable	Not applicable	23
Bizino 2019	Placebo; None; Subcutaneous	BMI change	kg/m2	31.6	3.4	Not applicable	Not applicable	Not applicable	26
Bizino 2019	Placebo; None; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	26
Bizino 2019	Placebo; None; Subcutaneous	Weight change	kg	94	13	Not applicable	Not applicable	Not applicable	26

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Blonde 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	33.1	5.2	Not applicable	Not applicable	Not applicable	293
Blonde 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.4	1.03	Not applicable	Not applicable	Not applicable	293
Blonde 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	91.7	18	Not applicable	Not applicable	Not applicable	293
Blonde 2015	Dulaglutide; 0.75/1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	32.55	5.18	Not applicable	Not applicable	Not applicable	588
Blonde 2015	Dulaglutide; 0.75/1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.43	1.05	Not applicable	Not applicable	Not applicable	588
Blonde 2015	Dulaglutide; 0.75/1.5 mg	Weight change	kg	91.35	18.09	Not applicable	Not applicable	Not applicable	588

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Blonde 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32	5.1	Not applicable	Not applicable	Not applicable	295
Blonde 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.46	1.08	Not applicable	Not applicable	Not applicable	295
Blonde 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	91	18.2	Not applicable	Not applicable	Not applicable	295
Blonde 2015	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	32.4	5.3	Not applicable	Not applicable	Not applicable	296
Blonde 2015	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.53	1.03	Not applicable	Not applicable	Not applicable	296

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Blonde 2015	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	90.8	18.9	Not applicable	Not applicable	Not applicable	296
Blonde 2020	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32	6	Not applicable	Not applicable	Not applicable	203
Blonde 2020	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	203
Blonde 2020	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	91	21	Not applicable	Not applicable	Not applicable	203
Blonde 2020	Placebo; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.6	6.5	Not applicable	Not applicable	Not applicable	100
Blonde 2020	Placebo; 1.8 mg daily; Subcutaneous	HbA1c change	%	8	0.6	Not applicable	Not applicable	Not applicable	100
Blonde 2020	Placebo; 1.8 mg daily; Subcutaneous	Weight change	kg	91.4	21.4	Not applicable	Not applicable	Not applicable	100

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bode 2013	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	31.4	4.4	Not applicable	Not applicable	Not applicable	241
Bode 2013	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	241
Bode 2013	Canagliflozin; 100 mg daily; Oral	Weight change	kg	88.4	15.6	Not applicable	Not applicable	Not applicable	241
Bode 2013	Canagliflozin; 100-300 mg daily combined; Oral	BMI change	kg/m2	31.45	4.5	Not applicable	Not applicable	Not applicable	477
Bode 2013	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.75	0.8	Not applicable	Not applicable	Not applicable	477
Bode 2013	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	88.6	16.3	Not applicable	Not applicable	Not applicable	477
Bode 2013	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	31.5	4.6	Not applicable	Not applicable	Not applicable	236

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bode 2013	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	7.7	0.8	Not applicable	Not applicable	Not applicable	236
Bode 2013	Canagliflozin; 300 mg daily; Oral	Weight change	kg	88.8	17.1	Not applicable	Not applicable	Not applicable	236
Bode 2013	Placebo; None; Oral	BMI change	kg/m2	31.8	4.7	Not applicable	Not applicable	Not applicable	237
Bode 2013	Placebo; None; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	237
Bode 2013	Placebo; None; Oral	Weight change	kg	91.1	17.5	Not applicable	Not applicable	Not applicable	237
Bolinder 2012	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	32.1	3.9	Not applicable	Not applicable	Not applicable	89
Bolinder 2012	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	7.19	0.44	Not applicable	Not applicable	Not applicable	89
Bolinder 2012	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	92.1	14.1	Not applicable	Not applicable	Not applicable	89
Bolinder 2012	Placebo; None; Oral	BMI change	kg/m2	31.7	3.9	Not applicable	Not applicable	Not applicable	91
Bolinder 2012	Placebo; None; Oral	HbA1c change	%	7.16	0.53	Not applicable	Not applicable	Not applicable	91
Bolinder 2012	Placebo; None; Oral	Weight change	kg	90.9	13.7	Not applicable	Not applicable	Not applicable	91



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bolli 2008	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	32.1	5.1	Not applicable	Not applicable	Not applicable	281
Bolli 2008	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	281
Bolli 2008	Pioglitazone; 30 mg daily; Oral	Weight change	kg	91.2	16.9	Not applicable	Not applicable	Not applicable	281
Bolli 2008	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.2	5.6	Not applicable	Not applicable	Not applicable	295
Bolli 2008	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	295
Bolli 2008	Vildagliptin; 100 mg daily; Oral	Weight change	kg	91.8	18.5	Not applicable	Not applicable	Not applicable	295
Bolli 2014	Lixisenatide; 10-20 mcg daily B; Subcutaneous	BMI change	kg/m2	32.1	4.8	Not applicable	Not applicable	Not applicable	161
Bolli 2014	Lixisenatide; 10-20 mcg daily B; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	161

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bolli 2014	Lixisenatide; 10-20 mcg daily B; Subcutaneous	Weight change	kg	88	16.8	Not applicable	Not applicable	Not applicable	161
Bolli 2014	Lixisenatide; 10-20 mcg daily combined; Subcutaneous	BMI change	kg/m2	32.55	5.33	Not applicable	Not applicable	Not applicable	322
Bolli 2014	Lixisenatide; 10-20 mcg daily combined; Subcutaneous	HbA1c change	%	8.05	0.9	Not applicable	Not applicable	Not applicable	322
Bolli 2014	Lixisenatide; 10-20 mcg daily combined; Subcutaneous	Weight change	kg	89.15	17.94	Not applicable	Not applicable	Not applicable	322
Bolli 2014	Lixisenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	33	5.8	Not applicable	Not applicable	Not applicable	161

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bolli 2014	Lixisenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	161
Bolli 2014	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	90.3	19	Not applicable	Not applicable	Not applicable	161
Bolli 2014	Placebo; None; Subcutaneous	BMI change	kg/m2	32.4	5.5	Not applicable	Not applicable	Not applicable	160
Bolli 2014	Placebo; None; Subcutaneous	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	160
Bolli 2014	Placebo; None; Subcutaneous	Weight change	kg	87.9	17.3	Not applicable	Not applicable	Not applicable	160
Bosi 2007	Placebo; None; Oral	BMI change	kg/m2	33.2	6.1	Not applicable	Not applicable	Not applicable	182
Bosi 2007	Placebo; None; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	182
Bosi 2007	Placebo; None; Oral	Weight change	kg	94.8	1.8	Not applicable	Not applicable	Not applicable	182

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bosi 2007	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.9	5	Not applicable	Not applicable	Not applicable	185
Bosi 2007	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	185
Bosi 2007	Vildagliptin; 100 mg daily; Oral	Weight change	kg	95.3	1.5	Not applicable	Not applicable	Not applicable	185
Bosi 2007	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	32.1	5.3	Not applicable	Not applicable	Not applicable	177
Bosi 2007	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	177
Bosi 2007	Vildagliptin; 50 mg daily; Oral	Weight change	kg	92.5	1.6	Not applicable	Not applicable	Not applicable	177
Bosi 2007	Vildagliptin; 50-100 mg daily combined; Oral	BMI change	kg/m2	32.51	5.16	Not applicable	Not applicable	Not applicable	362
Bosi 2007	Vildagliptin; 50-100 mg daily combined; Oral	HbA1c change	%	8.4	0.95	Not applicable	Not applicable	Not applicable	362

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bosi 2007	Vildagliptin; 50-100 mg daily combined; Oral	Weight change	kg	93.93	2.09	Not applicable	Not applicable	Not applicable	362
Brown 2020	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	32.3	4.66	Not applicable	Not applicable	Not applicable	32
Brown 2020	Dapagliflozin; 10 mg daily; Oral	HbA1c change	mmol/mol	61.75	11.19	Not applicable	Not applicable	Not applicable	32
Brown 2020	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	91.58	14.62	Not applicable	Not applicable	Not applicable	32
Brown 2020	Placebo; None; Oral	BMI change	kg/m2	32.59	4.22	Not applicable	Not applicable	Not applicable	34
Brown 2020	Placebo; None; Oral	HbA1c change	mmol/mol	60.18	10.15	Not applicable	Not applicable	Not applicable	34
Brown 2020	Placebo; None; Oral	Weight change	kg	91.48	14.13	Not applicable	Not applicable	Not applicable	34
Bunck 2009	Exenatide; 60 mcg daily; Subcutaneous	BMI change	kg/m2	30.9	4.2	0.7	Not applicable	Not applicable	36
Bunck 2009	Exenatide; 60 mcg daily; Subcutaneous	HbA1c change	%	7.6	0.6	0.1	Not applicable	Not applicable	36

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Bunck 2009	Exenatide; 60 mcg daily; Subcutaneous	Weight change	kg	90.6	12.6	2.1	Not applicable	Not applicable	36
Bunck 2009	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	30.1	3.45	0.6	Not applicable	Not applicable	33
Bunck 2009	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	7.4	0.57	0.1	Not applicable	Not applicable	33
Bunck 2009	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	92.4	13.79	2.4	Not applicable	Not applicable	33
Buse 2004	Exenatide; 10 mcg daily; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	125
Buse 2004	Exenatide; 10 mcg daily; Subcutaneous	HbA1c change	%	8.5	1.1	Not applicable	Not applicable	Not applicable	125
Buse 2004	Exenatide; 10-20 mcg	BMI change	kg/m2	33	5.99	Not applicable	Not applicable	Not applicable	254

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	daily combined; Subcutaneous								
Buse 2004	Exenatide; 10-20 mcg daily combined; Subcutaneous	HbA1c change	%	8.55	1.15	Not applicable	Not applicable	Not applicable	254
Buse 2004	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	129
Buse 2004	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.6	1.2	Not applicable	Not applicable	Not applicable	129
Buse 2004	Placebo; None; Subcutaneous	BMI change	kg/m2	34	5	Not applicable	Not applicable	Not applicable	123
Buse 2004	Placebo; None; Subcutaneous	HbA1c change	%	8.7	1.2	Not applicable	Not applicable	Not applicable	123
Buse 2009	Exenatide; 20 mcg daily;	BMI change	kg/m2	32.9	5.7	Not applicable	Not applicable	Not applicable	231

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Buse 2009	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	231
Buse 2009	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	93	19.5	Not applicable	Not applicable	Not applicable	231
Buse 2009	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.9	5.5	Not applicable	Not applicable	Not applicable	233
Buse 2009	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	233
Buse 2009	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	93.1	20.1	Not applicable	Not applicable	Not applicable	233
Buse 2011	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33.8	5.8	Not applicable	Not applicable	Not applicable	137
Buse 2011	Exenatide; 20 mcg daily;	HbA1c change	%	8.32	0.85	Not applicable	Not applicable	Not applicable	137



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Buse 2011	Placebo; None; Subcutaneous	BMI change	kg/m2	33.1	6.2	Not applicable	Not applicable	Not applicable	122
Buse 2011	Placebo; None; Subcutaneous	HbA1c change	%	8.5	0.96	Not applicable	Not applicable	Not applicable	122
Buse 2013	Exenatide; 2 mg daily; Subcutaneous	BMI change	kg/m2	32.3	5.6	Not applicable	Not applicable	Not applicable	461
Buse 2013	Exenatide; 2 mg daily; Subcutaneous	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	461
Buse 2013	Exenatide; 2 mg daily; Subcutaneous	Weight change	kg	90.9	19.5	Not applicable	Not applicable	Not applicable	461
Buse 2013	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.3	5.4	Not applicable	Not applicable	Not applicable	450
Buse 2013	Liraglutide; 1.8 mg daily;	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	450

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Buse 2013	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	91.1	19.1	Not applicable	Not applicable	Not applicable	450
Buse 2014	Insulin degludec/liraglutide; Titrated; Subcutaneous	BMI change	kg/m2	33.6	6	Not applicable	Not applicable	Not applicable	199
Buse 2014	Insulin degludec/liraglutide; Titrated; Subcutaneous	HbA1c change	%	8.7	0.7	Not applicable	Not applicable	Not applicable	199
Buse 2014	Insulin degludec/liraglutide; Titrated; Subcutaneous	Weight change	kg	95.4	19	Not applicable	Not applicable	Not applicable	199
Buse 2014	Insulin degludec; Titrated; Subcutaneous	BMI change	kg/m2	33.8	6	Not applicable	Not applicable	Not applicable	199

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Buse 2014	Insulin degludec; Titrated; Subcutaneous	HbA1c change	%	8.8	0.7	Not applicable	Not applicable	Not applicable	199
Buse 2014	Insulin degludec; Titrated; Subcutaneous	Weight change	kg	93.5	20	Not applicable	Not applicable	Not applicable	199
Buse 2020	Semaglutide; 3-14 mg daily; Oral	BMI change	kg/m2	31	5.4	Not applicable	Not applicable	Not applicable	100
Buse 2020	Semaglutide; 3-14 mg daily; Oral	HbA1c change	%	7.4	1	Not applicable	Not applicable	Not applicable	100
Buse 2020	Semaglutide; 3-14 mg daily; Oral	Weight change	kg	85.8	15.4	Not applicable	Not applicable	Not applicable	100
Buse 2020	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.6	5.9	Not applicable	Not applicable	Not applicable	98
Buse 2020	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.5	0.9	Not applicable	Not applicable	Not applicable	98
Buse 2020	Sitagliptin; 100 mg daily; Oral	Weight change	kg	86.9	20.4	Not applicable	Not applicable	Not applicable	98

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Camerini-Davalos 1994	Glipizide; 5 mg daily; Oral	BMI change	kg/m2	25.1	1.26	0.2	Not applicable	Not applicable	40
Camerini-Davalos 1994	Glipizide; 5 mg daily; Oral	HbA1c change	%	11.2	1.75	0.3	Not applicable	Not applicable	34
Camerini-Davalos 1994	Placebo; None; Oral	BMI change	kg/m2	24.3	2.15	0.4	Not applicable	Not applicable	29
Camerini-Davalos 1994	Placebo; None; Oral	HbA1c change	%	10.3	1.56	0.3	Not applicable	Not applicable	27
Capehorn 2020	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	33.7	7	Not applicable	Not applicable	Not applicable	287
Capehorn 2020	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	287
Capehorn 2020	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	33.7	6.6	Not applicable	Not applicable	Not applicable	290
Capehorn 2020	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	290

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Cefalu 2013	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	31	5.3	Not applicable	Not applicable	Not applicable	483
Cefalu 2013	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	483
Cefalu 2013	Canagliflozin; 100-300 mg daily combined; Oral	BMI change	kg/m2	31.1	5.35	Not applicable	Not applicable	Not applicable	968
Cefalu 2013	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	968
Cefalu 2013	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	31.2	5.4	Not applicable	Not applicable	Not applicable	485
Cefalu 2013	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	485
Cefalu 2013	Glimepiride; 6-8 mg daily; Oral	BMI change	kg/m2	30.9	5.5	Not applicable	Not applicable	Not applicable	482
Cefalu 2013	Glimepiride; 6-8 mg daily; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	482

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Charbonnel 2006	Placebo; None; Oral	BMI change	kg/m2	31.5	4.9	Not applicable	Not applicable	Not applicable	237
Charbonnel 2006	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	237
Charbonnel 2006	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.9	5.3	Not applicable	Not applicable	Not applicable	464
Charbonnel 2006	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	464
Charbonnel 2013	Liraglutide; 0.6-1.2 mg daily; Subcutaneous	BMI change	kg/m2	32.7	6.1	Not applicable	Not applicable	Not applicable	327
Charbonnel 2013	Liraglutide; 0.6-1.2 mg daily; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	327
Charbonnel 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.6	5.9	Not applicable	Not applicable	Not applicable	326
Charbonnel 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	326

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Charpentier 2009	Pioglitazone; 30-45 mg daily; Oral	BMI change	kg/m2	29.2	3.1	Not applicable	Not applicable	Not applicable	142
Charpentier 2009	Pioglitazone; 30-45 mg daily; Oral	HbA1c change	%	8.2	0.6	Not applicable	Not applicable	Not applicable	142
Charpentier 2009	Placebo; None; Oral	BMI change	kg/m2	29.1	3.3	Not applicable	Not applicable	Not applicable	147
Charpentier 2009	Placebo; None; Oral	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	147
Chen 2016	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	24.14	4.27	Not applicable	Not applicable	Not applicable	36
Chen 2016	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.33	0.67	Not applicable	Not applicable	Not applicable	36
Chen 2016	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	22.9	3.09	Not applicable	Not applicable	Not applicable	37
Chen 2016	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.38	0.69	Not applicable	Not applicable	Not applicable	37
Chen 2018A	Placebo; None; Oral	BMI change	kg/m2	26.3	3.1	Not applicable	Not applicable	Not applicable	230
Chen 2018A	Placebo; None; Oral	HbA1c change	%	8.53	0.7	Not applicable	Not applicable	Not applicable	230
Chen 2018A	Placebo; None; Oral	Weight change	kg	71.3	10.6	Not applicable	Not applicable	Not applicable	229

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Chen 2018A	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	26.1	3.3	Not applicable	Not applicable	Not applicable	232
Chen 2018A	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.52	0.69	Not applicable	Not applicable	Not applicable	232
Chen 2018A	Saxagliptin; 5 mg daily; Oral	Weight change	kg	71.2	11.7	Not applicable	Not applicable	Not applicable	232
Civera 2008	Metformin type unspecified; 850 mg daily; Oral	BMI change	kg/m2	27.9	3.8	Not applicable	Not applicable	Not applicable	12
Civera 2008	Metformin type unspecified; 850 mg daily; Oral	HbA1c change	%	9.6	0.7	Not applicable	Not applicable	Not applicable	12
Civera 2008	Metformin type unspecified; 850 mg daily; Oral	Weight change	kg	74.7	8	Not applicable	Not applicable	Not applicable	12
Civera 2008	NPH Insulin; None; Subcutaneous	BMI change	kg/m2	27.4	4.8	Not applicable	Not applicable	Not applicable	13



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Civera 2008	NPH Insulin; None; Subcutaneous	HbA1c change	%	9.8	1.1	Not applicable	Not applicable	Not applicable	13
Civera 2008	NPH Insulin; None; Subcutaneous	Weight change	kg	68.8	14.7	Not applicable	Not applicable	Not applicable	13
Cusi 2019	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	7.6	0.8	Not applicable	Not applicable	Not applicable	26
Cusi 2019	Canagliflozin; 300 mg daily; Oral	Weight change	kg	94.5	12.8	Not applicable	Not applicable	Not applicable	26
Cusi 2019	Placebo; None; Oral	HbA1c change	%	7.7	0.7	Not applicable	Not applicable	Not applicable	30
Cusi 2019	Placebo; None; Oral	Weight change	kg	92.5	14.9	Not applicable	Not applicable	Not applicable	30
da Silva 2016	NPH Insulin; 11 units daily titrated; Subcutaneous	BMI change	kg/m2	27.5	2.5	Not applicable	Not applicable	Not applicable	17
da Silva 2016	NPH Insulin; 11 units daily titrated; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	17

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
da Silva 2016	NPH Insulin; 11 units daily titrated; Subcutaneous	Weight change	kg	73.4	9.7	Not applicable	Not applicable	Not applicable	17
da Silva 2016	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.5	2.7	Not applicable	Not applicable	Not applicable	18
da Silva 2016	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8	0.6	Not applicable	Not applicable	Not applicable	18
da Silva 2016	Sitagliptin; 100 mg daily; Oral	Weight change	kg	69.3	12	Not applicable	Not applicable	Not applicable	18
Dagogo-Jack 2017	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	30.9	6.1	Not applicable	Not applicable	Not applicable	153
Dagogo-Jack 2017	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	153
Dagogo-Jack 2017	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	86.8	19.5	Not applicable	Not applicable	Not applicable	153
Dagogo-Jack 2017	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	31.2	5.5	Not applicable	Not applicable	Not applicable	156

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Dagogo-Jack 2017	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	156
Dagogo-Jack 2017	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	87.6	18.6	Not applicable	Not applicable	Not applicable	156
Dagogo-Jack 2017	Ertugliflozin; 5-15 mg daily combined; Oral	BMI change	kg/m2	31.1	5.8	Not applicable	Not applicable	Not applicable	309
Dagogo-Jack 2017	Ertugliflozin; 5-15 mg daily combined; Oral	HbA1c change	%	8.05	0.85	Not applicable	Not applicable	Not applicable	309
Dagogo-Jack 2017	Ertugliflozin; 5-15 mg daily combined; Oral	Weight change	kg	87.1	19	Not applicable	Not applicable	Not applicable	309
Dagogo-Jack 2017	Placebo; None; Oral	BMI change	kg/m2	30.3	6.4	Not applicable	Not applicable	Not applicable	153
Dagogo-Jack 2017	Placebo; None; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	153
Dagogo-Jack 2017	Placebo; None; Oral	Weight change	kg	86.4	20.8	Not applicable	Not applicable	Not applicable	153
Dahl 2022	Placebo; None; Subcutaneous	BMI change	kg/m2	33.2	6.3	Not applicable	Not applicable	Not applicable	120

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Dahl 2022	Placebo; None; Subcutaneous	HbA1c change	%	8.37	0.84	Not applicable	Not applicable	Not applicable	120
Dahl 2022	Placebo; None; Subcutaneous	Weight change	kg	94.1	21.8	Not applicable	Not applicable	Not applicable	120
Dahl 2022	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m2	33.4	6.2	Not applicable	Not applicable	Not applicable	119
Dahl 2022	Tirzepatide; 10 mg weekly; Subcutaneous	HbA1c change	%	8.36	0.83	Not applicable	Not applicable	Not applicable	119
Dahl 2022	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	94.5	22.2	Not applicable	Not applicable	Not applicable	119
Dahl 2022	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	33.4	5.9	Not applicable	Not applicable	Not applicable	120

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Dahl 2022	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	8.23	0.86	Not applicable	Not applicable	Not applicable	120
Dahl 2022	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	96.3	22.8	Not applicable	Not applicable	Not applicable	120
Dahl 2022	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	33.6	5.9	Not applicable	Not applicable	Not applicable	116
Dahl 2022	Tirzepatide; 5 mg weekly; Subcutaneous	HbA1c change	%	8.3	0.88	Not applicable	Not applicable	Not applicable	116
Dahl 2022	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	95.8	19.8	Not applicable	Not applicable	Not applicable	116
Dahl 2022	Tirzepatide; 5-15 mg daily combined; Subcutaneous	BMI change	kg/m2	33.47	5.98	Not applicable	Not applicable	Not applicable	355
Dahl 2022	Tirzepatide; 5-15 mg daily	HbA1c change	%	8.3	0.89	Not applicable	Not applicable	Not applicable	355

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Subcutaneous								
Dahl 2022	Tirzepatide; 5-15 mg daily combined; Subcutaneous	Weight change	kg	95.53	21.61	Not applicable	Not applicable	Not applicable	355
D'Alessio 2015	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	32	4.2	Not applicable	Not applicable	Not applicable	474
D'Alessio 2015	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	9	1	Not applicable	Not applicable	Not applicable	474
D'Alessio 2015	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	90.8	16.6	Not applicable	Not applicable	Not applicable	474
D'Alessio 2015	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	31.8	4.1	Not applicable	Not applicable	Not applicable	470
D'Alessio 2015	Liraglutide; 1.8 mg daily;	HbA1c change	%	9.1	1.1	Not applicable	Not applicable	Not applicable	470

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
D'Alessio 2015	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	90.1	16.7	Not applicable	Not applicable	Not applicable	470
Davies 2009	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	34.6	5.7	Not applicable	Not applicable	Not applicable	118
Davies 2009	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.65	0.68	Not applicable	Not applicable	Not applicable	118
Davies 2009	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg/m2	101.4	19.8	Not applicable	Not applicable	Not applicable	118
Davies 2009	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	33.7	4.9	Not applicable	Not applicable	Not applicable	116
Davies 2009	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.48	0.66	Not applicable	Not applicable	Not applicable	116

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2009	Insulin glargine; Titrated; Subcutaneous	Weight change	kg/m2	97.6	16.4	Not applicable	Not applicable	Not applicable	116
Davies 2013	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	33.7	4.7	Not applicable	Not applicable	Not applicable	111
Davies 2013	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.37	0.85	Not applicable	Not applicable	Not applicable	111
Davies 2013	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	96.7	17	Not applicable	Not applicable	Not applicable	111
Davies 2013	Insulin detemir; Titrated; Subcutaneous	BMI change	kg/m2	33.7	4.7	Not applicable	Not applicable	Not applicable	105
Davies 2013	Insulin detemir; Titrated; Subcutaneous	HbA1c change	%	8.35	0.88	Not applicable	Not applicable	Not applicable	105
Davies 2013	Insulin detemir;	Weight change	kg	97.9	15.8	Not applicable	Not applicable	Not applicable	105



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Titrated; Subcutaneous								
Davies 2015	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	37	6.9	Not applicable	Not applicable	Not applicable	211
Davies 2015	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	105.8	21	Not applicable	Not applicable	Not applicable	211
Davies 2015	Liraglutide; 1.8-3 mg daily combined; Subcutaneous	BMI change	kg/m2	37.1	6.6	Not applicable	Not applicable	Not applicable	634
Davies 2015	Liraglutide; 1.8-3 mg daily combined; Subcutaneous	Weight change	kg	105.7	21.6	Not applicable	Not applicable	Not applicable	634
Davies 2015	Liraglutide; 3 mg daily; Subcutaneous	BMI change	kg/m2	37.1	6.5	Not applicable	Not applicable	Not applicable	423
Davies 2015	Liraglutide; 3 mg daily;	Weight change	kg	105.7	21.9	Not applicable	Not applicable	Not applicable	423

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Davies 2015	Placebo; None; Subcutaneous	BMI change	kg/m2	37.4	7.1	Not applicable	Not applicable	Not applicable	212
Davies 2015	Placebo; None; Subcutaneous	Weight change	kg	106.5	21.3	Not applicable	Not applicable	Not applicable	212
Davies 2017	Placebo; None; Oral	BMI change	kg/m2	32.6	4.5	Not applicable	Not applicable	Not applicable	71
Davies 2017	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	71
Davies 2017	Placebo; None; Oral	Weight change	kg	93.8	18.1	Not applicable	Not applicable	Not applicable	71
Davies 2017	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	30.7	4	Not applicable	Not applicable	Not applicable	69
Davies 2017	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	7.8	0.7	Not applicable	Not applicable	Not applicable	69
Davies 2017	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	88.8	15.4	Not applicable	Not applicable	Not applicable	69

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2017	Semaglutide; 10 mg daily; Oral	BMI change	kg/m2	31.9	4.4	Not applicable	Not applicable	Not applicable	69
Davies 2017	Semaglutide; 10 mg daily; Oral	HbA1c change	%	7.8	0.7	Not applicable	Not applicable	Not applicable	69
Davies 2017	Semaglutide; 10 mg daily; Oral	Weight change	kg	91.8	14	Not applicable	Not applicable	Not applicable	69
Davies 2017	Semaglutide; 2.5 mg daily; Oral	BMI change	kg/m2	31.7	4.1	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 2.5 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 2.5 mg daily; Oral	Weight change	kg	93.6	15.6	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 2.5-40 mg oral combined; Oral	BMI change	kg/m2	31.76	4.35	Not applicable	Not applicable	Not applicable	490
Davies 2017	Semaglutide; 2.5-40 mg oral combined; Oral	HbA1c change	%	7.9	0.71	Not applicable	Not applicable	Not applicable	490

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2017	Semaglutide; 2.5-40 mg oral combined; Oral	Weight change	kg	92.63	16.87	Not applicable	Not applicable	Not applicable	490
Davies 2017	Semaglutide; 2.5-40 mg oral+SC combined; Oral + Subcutaneous	BMI change	kg/m2	31.63	4.33	Not applicable	Not applicable	Not applicable	559
Davies 2017	Semaglutide; 2.5-40 mg oral+SC combined; Oral + Subcutaneous	HbA1c change	%	7.89	0.71	Not applicable	Not applicable	Not applicable	559
Davies 2017	Semaglutide; 2.5-40 mg oral+SC combined; Oral + Subcutaneous	Weight change	kg	92.15	16.74	Not applicable	Not applicable	Not applicable	559
Davies 2017	Semaglutide; 20 mg daily; Oral	BMI change	kg/m2	32	4.5	Not applicable	Not applicable	Not applicable	70

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2017	Semaglutide; 20 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 20 mg daily; Oral	Weight change	kg	93.8	17.9	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily fast escalation; Oral	BMI change	kg/m2	31.7	3.8	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily fast escalation; Oral	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily fast escalation; Oral	Weight change	kg	92	15.4	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily slow escalation; Oral	BMI change	kg/m2	32.3	4.5	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily slow	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	70

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	escalation; Oral								
Davies 2017	Semaglutide; 40 mg daily slow escalation; Oral	Weight change	kg	93.3	18.8	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 40 mg daily; Oral	BMI change	kg/m2	31.1	4.1	Not applicable	Not applicable	Not applicable	71
Davies 2017	Semaglutide; 40 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	71
Davies 2017	Semaglutide; 40 mg daily; Oral	Weight change	kg	90.8	16.5	Not applicable	Not applicable	Not applicable	71
Davies 2017	Semaglutide; 5 mg daily; Oral	BMI change	kg/m2	31.6	4.9	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 5 mg daily; Oral	HbA1c change	%	7.8	0.6	Not applicable	Not applicable	Not applicable	70
Davies 2017	Semaglutide; 5 mg daily; Oral	Weight change	kg	93.1	19	Not applicable	Not applicable	Not applicable	70
Davies 2021	Placebo; None; Subcutaneous	BMI change	kg/m2	35.9	6.5	Not applicable	Not applicable	Not applicable	403

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Davies 2021	Placebo; None; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	403
Davies 2021	Placebo; None; Subcutaneous	Weight change	kg	100.5	20.9	Not applicable	Not applicable	Not applicable	403
Davies 2021	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	35.3	5.9	Not applicable	Not applicable	Not applicable	403
Davies 2021	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	403
Davies 2021	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	99	21.1	Not applicable	Not applicable	Not applicable	403
Davies 2021	Semaglutide; 2.4 mg weekly; Subcutaneous	BMI change	kg/m2	35.9	6.4	Not applicable	Not applicable	Not applicable	404
Davies 2021	Semaglutide; 2.4 mg weekly;	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	404

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Davies 2021	Semaglutide; 2.4 mg weekly; Subcutaneous	Weight change	kg	99.9	22.5	Not applicable	Not applicable	Not applicable	404
DeFronzo 2005	Exenatide; 10 mcg daily; Subcutaneous	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	110
DeFronzo 2005	Exenatide; 10 mcg daily; Subcutaneous	HbA1c change	%	8.3	1.1	Not applicable	Not applicable	Not applicable	110
DeFronzo 2005	Exenatide; 10 mcg daily; Subcutaneous	Weight change	kg	100	22	Not applicable	Not applicable	Not applicable	110
DeFronzo 2005	Exenatide; 10-20 mcg daily combined; Subcutaneous	BMI change	kg/m2	34	5.99	Not applicable	Not applicable	Not applicable	223
DeFronzo 2005	Exenatide; 10-20 mcg daily combined;	HbA1c change	%	8.25	1.05	Not applicable	Not applicable	Not applicable	223



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
DeFronzo 2005	Exenatide; 10-20 mcg daily combined; Subcutaneous	Weight change	kg	100.51	20.97	Not applicable	Not applicable	Not applicable	223
DeFronzo 2005	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	113
DeFronzo 2005	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	113
DeFronzo 2005	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	101	20	Not applicable	Not applicable	Not applicable	113
DeFronzo 2005	Placebo; None; Subcutaneous	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	113
DeFronzo 2005	Placebo; None; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	113

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2005	Placebo; None; Subcutaneous	Weight change	kg	100	19	Not applicable	Not applicable	Not applicable	113
DeFronzo 2009	Placebo; None; Oral	BMI change	kg/m2	31.6	4.8	Not applicable	Not applicable	Not applicable	179
DeFronzo 2009	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	179
DeFronzo 2009	Placebo; None; Oral	Weight change	kg	87.1	17.8	Not applicable	Not applicable	Not applicable	179
DeFronzo 2009	Saxagliptin; 10 mg daily; Oral	BMI change	kg/m2	31.1	4.8	Not applicable	Not applicable	Not applicable	181
DeFronzo 2009	Saxagliptin; 10 mg daily; Oral	HbA1c change	%	8	1	Not applicable	Not applicable	Not applicable	181
DeFronzo 2009	Saxagliptin; 10 mg daily; Oral	Weight change	kg	87.8	18.9	Not applicable	Not applicable	Not applicable	181
DeFronzo 2009	Saxagliptin; 2.5 mg daily; Oral	BMI change	kg/m2	31.7	5.2	Not applicable	Not applicable	Not applicable	192
DeFronzo 2009	Saxagliptin; 2.5 mg daily; Oral	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	192
DeFronzo 2009	Saxagliptin; 2.5 mg daily; Oral	Weight change	kg	86	17.6	Not applicable	Not applicable	Not applicable	192

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2009	Saxagliptin; 2.5-10 mg daily combined; Oral	BMI change	kg/m2	31.34	4.91	Not applicable	Not applicable	Not applicable	564
DeFronzo 2009	Saxagliptin; 2.5-10 mg daily combined; Oral	HbA1c change	%	8.07	0.94	Not applicable	Not applicable	Not applicable	564
DeFronzo 2009	Saxagliptin; 2.5-10 mg daily combined; Oral	Weight change	kg	87.02	17.85	Not applicable	Not applicable	Not applicable	564
DeFronzo 2009	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	31.2	4.7	Not applicable	Not applicable	Not applicable	191
DeFronzo 2009	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	191
DeFronzo 2009	Saxagliptin; 5 mg daily; Oral	Weight change	kg	87.3	17	Not applicable	Not applicable	Not applicable	191
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 12.5 mg daily; Oral	BMI change	kg/m2	31.37	5.1	Not applicable	Not applicable	Not applicable	390

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 12.5 mg daily; Oral	HbA1c change	%	8.5	0.7	Not applicable	Not applicable	Not applicable	390
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 12.5-25 mg daily combined; Oral	BMI change	kg/m2	31.23	5.09	Not applicable	Not applicable	Not applicable	780
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 12.5-25 mg daily combined; Oral	HbA1c change	%	8.52	0.7	Not applicable	Not applicable	Not applicable	780
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 25 mg daily; Oral	BMI change	kg/m2	31.1	5.08	Not applicable	Not applicable	Not applicable	390
DeFronzo 2012	Pioglitazone + Alogliptin; 15-45 mg + 25 mg daily; Oral	HbA1c change	%	8.53	0.7	Not applicable	Not applicable	Not applicable	390

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2012	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	31.13	5.15	Not applicable	Not applicable	Not applicable	388
DeFronzo 2012	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	8.5	0.7	Not applicable	Not applicable	Not applicable	388
DeFronzo 2015	Empagliflozin + Linagliptin; 10 mg + 5 mg daily; Oral	BMI change	kg/m2	30.8	5.6	Not applicable	Not applicable	Not applicable	135
DeFronzo 2015	Empagliflozin + Linagliptin; 10 mg + 5 mg daily; Oral	HbA1c change	%	7.95	0.8	Not applicable	Not applicable	Not applicable	135
DeFronzo 2015	Empagliflozin + Linagliptin; 10 mg + 5 mg daily; Oral	Weight change	kg	86.6	19	Not applicable	Not applicable	Not applicable	135
DeFronzo 2015	Empagliflozin + Linagliptin; 10-25 + 5 mg daily combined; Oral	BMI change	kg/m2	30.7	5.7	Not applicable	Not applicable	Not applicable	269
DeFronzo 2015	Empagliflozin + Linagliptin;	HbA1c change	%	7.93	0.8	Not applicable	Not applicable	Not applicable	269

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	10-25 + 5 mg daily combined; Oral								
DeFronzo 2015	Empagliflozin + Linagliptin; 10-25 + 5 mg daily combined; Oral	Weight change	kg	86.1	19.7	Not applicable	Not applicable	Not applicable	269
DeFronzo 2015	Empagliflozin + Linagliptin; 25 mg + 5 mg daily; Oral	BMI change	kg/m2	30.6	5.7	Not applicable	Not applicable	Not applicable	134
DeFronzo 2015	Empagliflozin + Linagliptin; 25 mg + 5 mg daily; Oral	HbA1c change	%	7.9	0.79	Not applicable	Not applicable	Not applicable	134
DeFronzo 2015	Empagliflozin + Linagliptin; 25 mg + 5 mg daily; Oral	Weight change	kg	85.8	20.4	Not applicable	Not applicable	Not applicable	134
DeFronzo 2015	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	30.9	5.4	Not applicable	Not applicable	Not applicable	137

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2015	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8	0.93	Not applicable	Not applicable	Not applicable	137
DeFronzo 2015	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	86.1	18.2	Not applicable	Not applicable	Not applicable	137
DeFronzo 2015	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	31.4	5.4	Not applicable	Not applicable	Not applicable	277
DeFronzo 2015	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.01	0.88	Not applicable	Not applicable	Not applicable	277
DeFronzo 2015	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	86.9	17.9	Not applicable	Not applicable	Not applicable	277
DeFronzo 2015	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	31.8	5.3	Not applicable	Not applicable	Not applicable	140
DeFronzo 2015	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.02	0.83	Not applicable	Not applicable	Not applicable	140

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DeFronzo 2015	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	87.7	17.6	Not applicable	Not applicable	Not applicable	140
DeFronzo 2015	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	30.6	5.4	Not applicable	Not applicable	Not applicable	128
DeFronzo 2015	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.02	0.9	Not applicable	Not applicable	Not applicable	128
DeFronzo 2015	Linagliptin; 5 mg daily; Oral	Weight change	kg	85	18.3	Not applicable	Not applicable	Not applicable	128
Del Prato 2014	Alogliptin; 12.5 mg daily; Oral	BMI change	kg/m2	31.3	5.42	Not applicable	Not applicable	Not applicable	880
Del Prato 2014	Alogliptin; 12.5 mg daily; Oral	HbA1c change	%	7.6	0.6	Not applicable	Not applicable	Not applicable	880
Del Prato 2014	Alogliptin; 12.5 mg daily; Oral	Weight change	kg	85.3	18.96	Not applicable	Not applicable	Not applicable	880
Del Prato 2014	Alogliptin; 12.5-25 mg daily combined; Oral	BMI change	kg/m2	31.3	5.38	Not applicable	Not applicable	Not applicable	1765
Del Prato 2014	Alogliptin; 12.5-25 mg daily	HbA1c change	%	7.6	0.6	Not applicable	Not applicable	Not applicable	1765



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Del Prato 2014	Alogliptin; 12.5-25 mg daily combined; Oral	Weight change	kg	85.8	19.15	Not applicable	Not applicable	Not applicable	1765
Del Prato 2014	Alogliptin; 25 mg daily; Oral	BMI change	kg/m2	31.3	5.34	Not applicable	Not applicable	Not applicable	885
Del Prato 2014	Alogliptin; 25 mg daily; Oral	HbA1c change	%	7.6	0.61	Not applicable	Not applicable	Not applicable	885
Del Prato 2014	Alogliptin; 25 mg daily; Oral	Weight change	kg	86.3	19.33	Not applicable	Not applicable	Not applicable	885
Del Prato 2014	Glipizide; 5 mg daily; Oral	BMI change	kg/m2	31.1	5.32	Not applicable	Not applicable	Not applicable	874
Del Prato 2014	Glipizide; 5 mg daily; Oral	HbA1c change	%	7.6	0.62	Not applicable	Not applicable	Not applicable	874
Del Prato 2014	Glipizide; 5 mg daily; Oral	Weight change	kg	85.6	18.52	Not applicable	Not applicable	Not applicable	874
DePaoli 2014	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	32.7	5.4	Not applicable	Not applicable	Not applicable	60

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
DePaoli 2014	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.2	0.7	Not applicable	Not applicable	Not applicable	60
DePaoli 2014	Placebo; None; Oral	BMI change	kg/m2	31.8	5.7	Not applicable	Not applicable	Not applicable	61
DePaoli 2014	Placebo; None; Oral	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	61
Derosa 2010A	Glimepiride; 6 mg daily; Oral	BMI change	kg/m2	28.1	1.3	Not applicable	Not applicable	Not applicable	85
Derosa 2010A	Glimepiride; 6 mg daily; Oral	HbA1c change	%	8.3	0.6	Not applicable	Not applicable	Not applicable	85
Derosa 2010A	Glimepiride; 6 mg daily; Oral	Weight change	kg	78.4	6.3	Not applicable	Not applicable	Not applicable	85
Derosa 2010A	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	28.3	1.5	Not applicable	Not applicable	Not applicable	83
Derosa 2010A	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	83
Derosa 2010A	Pioglitazone; 30 mg daily; Oral	Weight change	kg	78	6.1	Not applicable	Not applicable	Not applicable	83
Derosa 2010B	Metformin type unspecified;	BMI change	kg/m2	27.7	1.3	Not applicable	Not applicable	Not applicable	76

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	1700 mg daily; Oral								
Derosa 2010B	Metformin type unspecified; 1700 mg daily; Oral	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	76
Derosa 2010B	Metformin type unspecified; 1700 mg daily; Oral	Weight change	kg	77.3	5.4	Not applicable	Not applicable	Not applicable	76
Derosa 2010B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	27.9	1.5	Not applicable	Not applicable	Not applicable	75
Derosa 2010B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	75
Derosa 2010B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	78.7	6.2	Not applicable	Not applicable	Not applicable	75
Derosa 2011B	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	28.4	1.3	Not applicable	Not applicable	Not applicable	57
Derosa 2011B	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.7	0.7	Not applicable	Not applicable	Not applicable	57

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Derosa 2011B	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	80.2	7.5	Not applicable	Not applicable	Not applicable	54
Derosa 2011B	Glimepiride; 6 mg daily; Oral	BMI change	kg/m2	28.5	1.4	Not applicable	Not applicable	Not applicable	54
Derosa 2011B	Glimepiride; 6 mg daily; Oral	HbA1c change	%	8.8	0.8	Not applicable	Not applicable	Not applicable	54
Derosa 2011B	Glimepiride; 6 mg daily; Oral	Weight change	kg	81.4	8.1	Not applicable	Not applicable	Not applicable	57
Derosa 2012A	Placebo; None; Oral	BMI change	kg/m2	28.9	2	Not applicable	Not applicable	Not applicable	87
Derosa 2012A	Placebo; None; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	87
Derosa 2012A	Placebo; None; Oral	Weight change	kg	78.6	6.7	Not applicable	Not applicable	Not applicable	87
Derosa 2012A	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	28.1	1.2	Not applicable	Not applicable	Not applicable	91
Derosa 2012A	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	91
Derosa 2012A	Sitagliptin; 100 mg daily; Oral	Weight change	kg	78.4	6.6	Not applicable	Not applicable	Not applicable	91

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Derosa 2012B	Placebo; None; Oral	BMI change	kg/m2	27.8	1.4	Not applicable	Not applicable	Not applicable	83
Derosa 2012B	Placebo; None; Oral	HbA1c change	mmol/mol	8.2	0.7	Not applicable	Not applicable	Not applicable	83
Derosa 2012B	Placebo; None; Oral	Weight change	kg	78.5	6.4	Not applicable	Not applicable	Not applicable	83
Derosa 2012B	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	27.9	1.5	Not applicable	Not applicable	Not applicable	84
Derosa 2012B	Vildagliptin; 100 mg daily; Oral	HbA1c change	mmol/mol	8.1	0.6	Not applicable	Not applicable	Not applicable	84
Derosa 2012B	Vildagliptin; 100 mg daily; Oral	Weight change	kg	76.9	5.8	Not applicable	Not applicable	Not applicable	84
Derosa 2012C	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	31.9	1.7	Not applicable	Not applicable	Not applicable	86
Derosa 2012C	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	86
Derosa 2012C	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	89	9.7	Not applicable	Not applicable	Not applicable	86

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Derosa 2012C	Placebo; None; Subcutaneous	BMI change	kg/m2	31.7	1.5	Not applicable	Not applicable	Not applicable	85
Derosa 2012C	Placebo; None; Subcutaneous	HbA1c change	%	7.9	0.6	Not applicable	Not applicable	Not applicable	85
Derosa 2012C	Placebo; None; Subcutaneous	Weight change	kg	90.5	10.3	Not applicable	Not applicable	Not applicable	85
Derosa 2014A	Glimepiride; 6 mg daily; Oral	BMI change	kg/m2	27.6	1.3	Not applicable	Not applicable	Not applicable	81
Derosa 2014A	Glimepiride; 6 mg daily; Oral	HbA1c change	%	27.6	1.3	Not applicable	Not applicable	Not applicable	81
Derosa 2014A	Glimepiride; 6 mg daily; Oral	Weight change	kg	77	6.3	Not applicable	Not applicable	Not applicable	81
Derosa 2014A	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	27.9	1.6	Not applicable	Not applicable	Not applicable	86
Derosa 2014A	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	27.9	1.6	Not applicable	Not applicable	Not applicable	86

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Derosa 2014A	Vildagliptin; 100 mg daily; Oral	Weight change	kg	77.8	6.9	Not applicable	Not applicable	Not applicable	86
Derosa 2014B	Placebo; None; Oral	BMI change	kg/m2	29.4	3.2	Not applicable	Not applicable	Not applicable	103
Derosa 2014B	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	103
Derosa 2014B	Placebo; None; Oral	Weight change	kg	8.2	6.3	Not applicable	Not applicable	Not applicable	103
Derosa 2014B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.2	3.1	Not applicable	Not applicable	Not applicable	102
Derosa 2014B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	102
Derosa 2014B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	8.1	6.2	Not applicable	Not applicable	Not applicable	102
Diamant 2010	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	32.3	5.4	Not applicable	Not applicable	Not applicable	233
Diamant 2010	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.3	1.1	Not applicable	Not applicable	Not applicable	233
Diamant 2010	Exenatide; 2 mg weekly;	Weight change	kg	91.1	18.6	Not applicable	Not applicable	Not applicable	233

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Diamant 2010	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	32.3	4.8	Not applicable	Not applicable	Not applicable	223
Diamant 2010	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	223
Diamant 2010	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	90.6	16.4	Not applicable	Not applicable	Not applicable	223
Diamant 2014	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	32.7	4.7	Not applicable	Not applicable	Not applicable	247
Diamant 2014	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	247
Diamant 2014	Exenatide; 10-20 mcg	Weight change	kg	91.1	16.6	Not applicable	Not applicable	Not applicable	247



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	daily; Subcutaneous								
Diamant 2014	Insulin lispro; Titrated; Subcutaneous	BMI change	kg/m2	32.3	4.7	Not applicable	Not applicable	Not applicable	263
Diamant 2014	Insulin lispro; Titrated; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	263
Diamant 2014	Insulin lispro; Titrated; Subcutaneous	Weight change	kg	89.4	17	Not applicable	Not applicable	Not applicable	263
Dobs 2013	Placebo; None; Oral	BMI change	kg/m2	30.8	6.2	Not applicable	Not applicable	Not applicable	92
Dobs 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.1	5.6	Not applicable	Not applicable	Not applicable	170
Dorkhan 2009	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.3	1.4	Not applicable	Not applicable	Not applicable	15
Dorkhan 2009	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.1	1.5	Not applicable	Not applicable	Not applicable	15

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Douek 2005	Metformin type unspecified; 2000 mg daily; Oral	BMI change	kg/m2	30.9	4.5	Not applicable	Not applicable	Not applicable	92
Douek 2005	Metformin type unspecified; 2000 mg daily; Oral	HbA1c change	%	9.7	1.3	Not applicable	Not applicable	Not applicable	92
Douek 2005	Metformin type unspecified; 2000 mg daily; Oral	Weight change	kg	88.5	14.7	Not applicable	Not applicable	Not applicable	92
Douek 2005	Placebo; None; Oral	BMI change	kg/m2	31.5	4.3	Not applicable	Not applicable	Not applicable	91
Douek 2005	Placebo; None; Oral	HbA1c change	%	10	1.5	Not applicable	Not applicable	Not applicable	91
Douek 2005	Placebo; None; Oral	Weight change	kg	91.1	15.7	Not applicable	Not applicable	Not applicable	91
Dungan 2014	Dulaglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.6	5.2	Not applicable	Not applicable	Not applicable	300
Dungan 2014	Dulaglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	300

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Dungan 2014	Dulaglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	94.4	19	Not applicable	Not applicable	Not applicable	300
Dungan 2014	Liraglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	33.5	5.1	Not applicable	Not applicable	Not applicable	299
Dungan 2014	Liraglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	299
Dungan 2014	Liraglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	93.8	18.2	Not applicable	Not applicable	Not applicable	299
Dungan 2016	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	30.9	5.2	Not applicable	Not applicable	Not applicable	239
Dungan 2016	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	239

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Dungan 2016	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	84.5	16.4	Not applicable	Not applicable	Not applicable	239
Dungan 2016	Placebo; None; Subcutaneous	BMI change	kg/m2	32.4	5.9	Not applicable	Not applicable	Not applicable	60
Dungan 2016	Placebo; None; Subcutaneous	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	60
Dungan 2016	Placebo; None; Subcutaneous	Weight change	kg	89.5	18.6	Not applicable	Not applicable	Not applicable	60
Ferdinand 2019	Empagliflozin ; 10-25 mg daily; Oral	BMI change	kg/m2	36.04	12.83	Not applicable	Not applicable	Not applicable	78
Ferdinand 2019	Empagliflozin ; 10-25 mg daily; Oral	HbA1c change	%	8.66	0.92	Not applicable	Not applicable	Not applicable	78
Ferdinand 2019	Empagliflozin ; 10-25 mg daily; Oral	Weight change	kg	105.05	24.29	2.75	Not applicable	Not applicable	78
Ferdinand 2019	Placebo; None; Oral	BMI change	kg/m2	35.12	8.29	Not applicable	Not applicable	Not applicable	72

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ferdinand 2019	Placebo; None; Oral	HbA1c change	%	8.51	1.12	Not applicable	Not applicable	Not applicable	72
Ferdinand 2019	Placebo; None; Oral	Weight change	kg	101.35	20.96	2.47	Not applicable	Not applicable	72
Fernandez 2008	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	9	0.7	Not applicable	Not applicable	Not applicable	10
Fernandez 2008	Placebo; None; Oral	HbA1c change	%	9.2	0.4	Not applicable	Not applicable	Not applicable	10
Ferrannini 2009	Glimepiride; 2-6 mg daily; Oral	BMI change	kg/m2	31.69	5.25	Not applicable	Not applicable	Not applicable	1393
Ferrannini 2009	Glimepiride; 2-6 mg daily; Oral	HbA1c change	%	7.3	0.65	Not applicable	Not applicable	Not applicable	1393
Ferrannini 2009	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.8	5.27	Not applicable	Not applicable	Not applicable	1396
Ferrannini 2009	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.31	0.64	Not applicable	Not applicable	Not applicable	1396
Filozof 2010a	Gliclazide; 80-320 mg daily; Oral	BMI change	kg/m2	30.8	5	Not applicable	Not applicable	Not applicable	494
Filozof 2010a	Gliclazide; 80-320 mg daily; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	494

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Filozof 2010a	Gliclazide; 80-320 mg daily; Oral	Weight change	kg	84.2	17.9	Not applicable	Not applicable	Not applicable	494
Filozof 2010a	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.2	5	Not applicable	Not applicable	Not applicable	511
Filozof 2010a	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	512
Filozof 2010a	Vildagliptin; 100 mg daily; Oral	Weight change	kg	85.7	16.6	Not applicable	Not applicable	Not applicable	511
Filozof 2010b	Metformin type unspecified; 1000 mg daily; Oral	BMI change	kg/m2	31.2	5.47	Not applicable	Not applicable	Not applicable	458
Filozof 2010b	Metformin type unspecified; 1000 mg daily; Oral	HbA1c change	%	7.3	0.79	Not applicable	Not applicable	Not applicable	457
Filozof 2010b	Metformin type unspecified; 1000 mg daily; Oral	Weight change	kg	84.4	18.94	Not applicable	Not applicable	Not applicable	458

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Filozof 2010b	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.1	5.11	Not applicable	Not applicable	Not applicable	456
Filozof 2010b	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.4	0.78	Not applicable	Not applicable	Not applicable	456
Filozof 2010b	Vildagliptin; 100 mg daily; Oral	Weight change	kg	84.6	17.01	Not applicable	Not applicable	Not applicable	456
Fonseca 2007	Placebo; None; Oral	BMI change	kg/m2	32.9	5.9	Not applicable	Not applicable	Not applicable	152
Fonseca 2007	Placebo; None; Oral	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	152
Fonseca 2007	Placebo; None; Oral	Weight change	kg	95.1	1.7	Not applicable	Not applicable	Not applicable	152
Fonseca 2007	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	33.3	5.2	Not applicable	Not applicable	Not applicable	144
Fonseca 2007	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	144
Fonseca 2007	Vildagliptin; 100 mg daily; Oral	Weight change	kg	94.5	1.5	Not applicable	Not applicable	Not applicable	144
Fonseca 2013	Placebo; None; Oral	BMI change	kg/m2	30	5.2	Not applicable	Not applicable	Not applicable	156
Fonseca 2013	Placebo; None; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	153

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Fonseca 2013	Placebo; None; Oral	Weight change	kg	83.8	19.1	Not applicable	Not applicable	Not applicable	156
Fonseca 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.9	5.2	Not applicable	Not applicable	Not applicable	157
Fonseca 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	152
Fonseca 2013	Sitagliptin; 100 mg daily; Oral	Weight change	kg	82.1	19.1	Not applicable	Not applicable	Not applicable	157
Forst 2005	Glimepiride; 1-6 mg daily titrated; Oral	BMI change	kg/m2	31.8	4.3	Not applicable	Not applicable	Not applicable	84
Forst 2005	Glimepiride; 1-6 mg daily titrated; Oral	HbA1c change	%	7.44	0.89	Not applicable	Not applicable	Not applicable	84
Forst 2005	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	31.7	5	Not applicable	Not applicable	Not applicable	89
Forst 2005	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	7.52	0.85	Not applicable	Not applicable	Not applicable	89
Forst 2014	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	32.3	6.2	Not applicable	Not applicable	Not applicable	113



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Forst 2014	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	113
Forst 2014	Canagliflozin; 100 mg daily; Oral	Weight change	kg	94.2	22.2	Not applicable	Not applicable	Not applicable	113
Forst 2014	Canagliflozin; 100-300 mg daily combined; Oral	BMI change	kg/m2	32.55	6.98	Not applicable	Not applicable	Not applicable	227
Forst 2014	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.95	0.9	Not applicable	Not applicable	Not applicable	227
Forst 2014	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	94.3	24.08	Not applicable	Not applicable	Not applicable	227
Forst 2014	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	32.8	7.7	Not applicable	Not applicable	Not applicable	114
Forst 2014	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	114

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Forst 2014	Canagliflozin; 300 mg daily; Oral	Weight change	kg	94.4	25.9	Not applicable	Not applicable	Not applicable	114
Forst 2014	Placebo; None; Oral	BMI change	kg/m2	32.5	6.4	Not applicable	Not applicable	Not applicable	115
Forst 2014	Placebo; None; Oral	HbA1c change	%	8	1	Not applicable	Not applicable	Not applicable	115
Forst 2014	Placebo; None; Oral	Weight change	kg	93.8	22.4	Not applicable	Not applicable	Not applicable	115
Forst 2015	NPH Insulin; Titrated; Subcutaneous	BMI change	kg/m2	89.9	16.2	Not applicable	Not applicable	Not applicable	79
Forst 2015	NPH Insulin; Titrated; Subcutaneous	HbA1c change	%	7.7	0.5	Not applicable	Not applicable	Not applicable	79
Forst 2015	NPH Insulin; Titrated; Subcutaneous	Weight change	kg	89.9	16.2	Not applicable	Not applicable	Not applicable	79
Forst 2015	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	85.5	14.9	Not applicable	Not applicable	Not applicable	82
Forst 2015	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	7.6	4.5	Not applicable	Not applicable	Not applicable	82

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Forst 2015	Vildagliptin; 50 mg daily; Oral	Weight change	kg	85.5	14.9	Not applicable	Not applicable	Not applicable	82
Frias 2016	Dapagliflozin + Exenatide; 10 mg daily + 2 mg weekly; Oral + Subcutaneous	BMI change	kg/m2	33.2	6.8	Not applicable	Not applicable	Not applicable	228
Frias 2016	Dapagliflozin + Exenatide; 10 mg daily + 2 mg weekly; Oral + Subcutaneous	HbA1c change	%	9.34	1.07	Not applicable	Not applicable	Not applicable	228
Frias 2016	Dapagliflozin + Exenatide; 10 mg daily + 2 mg weekly; Oral + Subcutaneous	Weight change	kg	91.79	22.24	Not applicable	Not applicable	Not applicable	228
Frias 2016	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	33	6.1	Not applicable	Not applicable	Not applicable	230

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Frias 2016	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	9.3	1.03	Not applicable	Not applicable	Not applicable	230
Frias 2016	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	91.06	19.71	Not applicable	Not applicable	Not applicable	230
Frias 2016	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	32	5.9	Not applicable	Not applicable	Not applicable	227
Frias 2016	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	9.3	1.06	Not applicable	Not applicable	Not applicable	227
Frias 2016	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	89.77	20.22	Not applicable	Not applicable	Not applicable	227
Frias 2018	Dulaglutide; 1.5 mg daily; Subcutaneous	BMI change	kg/m2	32.4	5.88	0.8	Not applicable	Not applicable	54
Frias 2018	Dulaglutide; 1.5 mg daily; Subcutaneous	HbA1c change	%	8.1	0.96	0.13	Not applicable	Not applicable	54
Frias 2018	Dulaglutide; 1.5 mg daily;	Weight change	kg	89.8	21.02	2.86	Not applicable	Not applicable	54

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Frias 2018	Placebo; None; Subcutaneous	BMI change	kg/m2	32.4	5.86	0.82	Not applicable	Not applicable	51
Frias 2018	Placebo; None; Subcutaneous	HbA1c change	%	8	1	0.14	Not applicable	Not applicable	51
Frias 2018	Placebo; None; Subcutaneous	Weight change	kg	91.5	21.07	2.95	Not applicable	Not applicable	51
Frias 2018	Tirzepatide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.9	5.84	0.81	Not applicable	Not applicable	52
Frias 2018	Tirzepatide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.94	0.13	Not applicable	Not applicable	52
Frias 2018	Tirzepatide; 1 mg weekly; Subcutaneous	Weight change	kg	93.2	21.06	2.92	Not applicable	Not applicable	52
Frias 2018	Tirzepatide; 10 g weekly;	BMI change	kg/m2	32.6	5.86	0.82	Not applicable	Not applicable	51

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Frias 2018	Tirzepatide; 10 g weekly; Subcutaneous	HbA1c change	%	8.2	1	0.14	Not applicable	Not applicable	51
Frias 2018	Tirzepatide; 10 g weekly; Subcutaneous	Weight change	kg	92.7	21.07	2.95	Not applicable	Not applicable	51
Frias 2018	Tirzepatide; 1-15 mg daily combined; Subcutaneous	BMI change	kg/m2	32.65	5.83	Not applicable	Not applicable	Not applicable	211
Frias 2018	Tirzepatide; 1-15 mg daily combined; Subcutaneous	HbA1c change	%	8.17	0.96	Not applicable	Not applicable	Not applicable	211
Frias 2018	Tirzepatide; 1-15 mg daily combined; Subcutaneous	Weight change	kg	91.95	20.97	Not applicable	Not applicable	Not applicable	211
Frias 2018	Tirzepatide; 15 mg weekly;	BMI change	kg/m2	32.2	5.9	0.81	Not applicable	Not applicable	53

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Frias 2018	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.95	0.13	Not applicable	Not applicable	53
Frias 2018	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	89.1	21.04	2.89	Not applicable	Not applicable	53
Frias 2018	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	32.9	5.86	0.79	Not applicable	Not applicable	55
Frias 2018	Tirzepatide; 5 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.96	0.13	Not applicable	Not applicable	55
Frias 2018	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	92.8	21.06	2.84	Not applicable	Not applicable	55
Frias 2020	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	BMI change	kg/m2	32.4	5.3	Not applicable	Not applicable	Not applicable	227

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Frias 2020	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	HbA1c change	%	8.41	0.82	Not applicable	Not applicable	Not applicable	227
Frias 2020	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	Weight change	kg	91	19.8	Not applicable	Not applicable	Not applicable	227
Frias 2020	Glimepiride; 1-6 mg daily titrated; Oral	BMI change	kg/m2	32.2	5.1	Not applicable	Not applicable	Not applicable	216
Frias 2020	Glimepiride; 1-6 mg daily titrated; Oral	HbA1c change	%	8.5	0.82	Not applicable	Not applicable	Not applicable	216
Frias 2020	Glimepiride; 1-6 mg daily titrated; Oral	Weight change	kg	88.4	17.1	Not applicable	Not applicable	Not applicable	216
Frias 2021	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	34.2	7.15	Not applicable	Not applicable	Not applicable	469
Frias 2021	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	mmol/mol	66.69	10.99	Not applicable	Not applicable	Not applicable	469
Frias 2021	Semaglutide; 1 mg weekly;	Weight change	kg	93.7	21.12	Not applicable	Not applicable	Not applicable	469



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Frias 2021	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m2	34.3	6.6	Not applicable	Not applicable	Not applicable	469
Frias 2021	Tirzepatide; 10 mg weekly; Subcutaneous	HbA1c change	mmol/mol	67.2	11.2	Not applicable	Not applicable	Not applicable	469
Frias 2021	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	94.8	22.71	Not applicable	Not applicable	Not applicable	469
Frias 2021	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	34.5	7.11	Not applicable	Not applicable	Not applicable	470
Frias 2021	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	mmol/mol	66.78	10.97	Not applicable	Not applicable	Not applicable	470
Frias 2021	Tirzepatide; 15 mg	Weight change	kg	93.8	21.83	Not applicable	Not applicable	Not applicable	470

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Frias 2021	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	33.8	6.85	Not applicable	Not applicable	Not applicable	470
Frias 2021	Tirzepatide; 5 mg weekly; Subcutaneous	HbA1c change	mmol/mol	67.46	11.84	Not applicable	Not applicable	Not applicable	470
Frias 2021	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	92.5	21.76	Not applicable	Not applicable	Not applicable	470
Frias 2021	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	BMI change	kg/m2	34.2	6.86	Not applicable	Not applicable	Not applicable	1409
Frias 2021	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	HbA1c change	mmol/mol	67.15	11.34	Not applicable	Not applicable	Not applicable	1408
Frias 2021	Tirzepatide; 5-15 mg	Weight change	kg	93.7	22.11	Not applicable	Not applicable	Not applicable	1409

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Frias 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	35.4	8	Not applicable	Not applicable	Not applicable	50
Frias 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	50
Frias 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	98.8	22.1	Not applicable	Not applicable	Not applicable	50
Frias 2023	Placebo; None; Oral	BMI change	kg/m2	35.8	6.2	Not applicable	Not applicable	Not applicable	55
Frias 2023	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	55
Frias 2023	Placebo; None; Oral	Weight change	kg	102	18.8	Not applicable	Not applicable	Not applicable	55
Fujioka 2003	Metformin slow release; 1000 mg daily; Oral	HbA1c change	%	7	0.8	Not applicable	Not applicable	Not applicable	75

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Fujioka 2003	Metformin slow release; 1000-1500 mg daily combined; Oral	HbA1c change	%	7	0.75	Not applicable	Not applicable	Not applicable	146
Fujioka 2003	Metformin slow release; 1500 mg daily; Oral	HbA1c change	%	7	0.7	Not applicable	Not applicable	Not applicable	71
Fujioka 2003	Metformin standard release; 1000 mg daily; Oral	HbA1c change	%	7.1	0.8	Not applicable	Not applicable	Not applicable	71
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	32.1	5.4	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	89.2	21.4	Not applicable	Not applicable	Not applicable	181
Gadde 2017	Placebo; None; Oral	BMI change	kg/m2	31.5	5.1	Not applicable	Not applicable	Not applicable	61

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Gadde 2017	Placebo; None; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Placebo; None; Oral	Weight change	kg	89	20.1	Not applicable	Not applicable	Not applicable	61
Gadde 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.6	5.8	Not applicable	Not applicable	Not applicable	122
Gadde 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	122
Gadde 2017	Sitagliptin; 100 mg daily; Oral	Weight change	kg	88.1	20.3	Not applicable	Not applicable	Not applicable	122
Galindo 2023	IDegLira; 50 units/1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.4	6.5	Not applicable	Not applicable	Not applicable	72
Galindo 2023	IDegLira; 50 units/1.8 mg daily; Subcutaneous	HbA1c change	%	10.8	1.4	Not applicable	Not applicable	Not applicable	72
Galindo 2023	IDegLira; 50 units/1.8 mg daily; Subcutaneous	Weight change	kg	93.1	20.5	Not applicable	Not applicable	Not applicable	72

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Galindo 2023	Insulin degludec; 50 units daily; Subcutaneous	BMI change	kg/m2	31.5	6.2	Not applicable	Not applicable	Not applicable	73
Galindo 2023	Insulin degludec; 50 units daily; Subcutaneous	HbA1c change	%	10.7	1.3	Not applicable	Not applicable	Not applicable	73
Galindo 2023	Insulin degludec; 50 units daily; Subcutaneous	Weight change	kg	91.9	19.5	Not applicable	Not applicable	Not applicable	73
Gallwitz 2011	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	33.4	4.2	Not applicable	Not applicable	Not applicable	182
Gallwitz 2011	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	182
Gallwitz 2011	Insulin aspart; Titrated;	BMI change	kg/m2	32.9	4.4	Not applicable	Not applicable	Not applicable	181

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gallwitz 2011	Insulin aspart; Titrated; Subcutaneous	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	181
Gallwitz 2012A	Glimepiride; 1-4 mg daily; Oral	BMI change	kg/m2	30.3	4.6	Not applicable	Not applicable	Not applicable	755
Gallwitz 2012A	Glimepiride; 1-4 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	755
Gallwitz 2012A	Glimepiride; 1-4 mg daily; Oral	Weight change	kg	86.8	16.7	Not applicable	Not applicable	Not applicable	755
Gallwitz 2012A	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	30.2	4.8	Not applicable	Not applicable	Not applicable	764
Gallwitz 2012A	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	764
Gallwitz 2012A	Linagliptin; 5 mg daily; Oral	Weight change	kg	86.1	17.6	Not applicable	Not applicable	Not applicable	764
Gallwitz 2012B	Exenatide; 10-20 mcg daily;	BMI change	kg/m2	32.6	4.2	Not applicable	Not applicable	Not applicable	490

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gallwitz 2012B	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.5	0.7	Not applicable	Not applicable	Not applicable	490
Gallwitz 2012B	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	92.8	16.7	Not applicable	Not applicable	Not applicable	490
Gallwitz 2012B	Glimepiride; Titrated; Oral	BMI change	kg/m2	32.3	3.9	Not applicable	Not applicable	Not applicable	487
Gallwitz 2012B	Glimepiride; Titrated; Oral	HbA1c change	%	7.4	Not applicable	Not applicable	Not applicable	Not applicable	487
Gallwitz 2012B	Glimepiride; Titrated; Oral	Weight change	kg	91.1	14.8	Not applicable	Not applicable	Not applicable	487
Gao 2023	Insulin glargine; 6 units daily; Subcutaneous	BMI change	kg/m2	27.9	4	Not applicable	Not applicable	Not applicable	220
Gao 2023	Insulin glargine; 6 units daily; Subcutaneous	HbA1c change	%	8.69	0.93	Not applicable	Not applicable	Not applicable	220



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Gao 2023	Insulin glargine; 6 units daily; Subcutaneous	Weight change	kg	76.6	14.5	Not applicable	Not applicable	Not applicable	220
Gao 2023	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m2	27.7	3.8	Not applicable	Not applicable	Not applicable	228
Gao 2023	Tirzepatide; 10 mg weekly; Subcutaneous	HbA1c change	%	8.71	0.96	Not applicable	Not applicable	Not applicable	228
Gao 2023	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	76.3	15	Not applicable	Not applicable	Not applicable	228
Gao 2023	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	27.8	3.8	Not applicable	Not applicable	Not applicable	229
Gao 2023	Tirzepatide; 15 mg weekly;	HbA1c change	%	8.68	0.97	Not applicable	Not applicable	Not applicable	229

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gao 2023	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	76.2	13.6	Not applicable	Not applicable	Not applicable	229
Gao 2023	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	28.1	3.9	Not applicable	Not applicable	Not applicable	230
Gao 2023	Tirzepatide; 5 mg weekly; Subcutaneous	HbA1c change	%	8.77	0.97	Not applicable	Not applicable	Not applicable	230
Gao 2023	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	77.7	14.2	Not applicable	Not applicable	Not applicable	230
Gao 2023	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	BMI change	kg/m2	27.87	3.83	Not applicable	Not applicable	Not applicable	687
Gao 2023	Tirzepatide; 5-15 mg weekly combined;	HbA1c change	%	8.72	0.97	Not applicable	Not applicable	Not applicable	687

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gao 2023	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	Weight change	kg	76.74	14.27	Not applicable	Not applicable	Not applicable	687
Garber 2007	Placebo; None; Oral	BMI change	kg/m2	32.3	5.8	Not applicable	Not applicable	Not applicable	158
Garber 2007	Placebo; None; Oral	HbA1c change	%	8.7	1.2	Not applicable	Not applicable	Not applicable	158
Garber 2007	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.2	5.8	Not applicable	Not applicable	Not applicable	158
Garber 2007	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.7	1.2	Not applicable	Not applicable	Not applicable	158
Garber 2007	Vildagliptin; 50 mg + 100 mg combined; Oral	BMI change	kg/m2	32.4	5.4	Not applicable	Not applicable	Not applicable	305
Garber 2007	Vildagliptin; 50 mg + 100 mg combined; Oral	HbA1c change	%	8.65	1.1	Not applicable	Not applicable	Not applicable	305

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Garber 2007	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	32.9	5	Not applicable	Not applicable	Not applicable	147
Garber 2007	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	147
Garber 2008	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	132
Garber 2008	Vildagliptin; 100 mg daily; Oral	Weight change	kg	87.3	1.6	Not applicable	Not applicable	Not applicable	132
Garber 2008	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	132
Garber 2008	Vildagliptin; 50 mg daily; Oral	Weight change	kg	91.5	1.6	Not applicable	Not applicable	Not applicable	132
Garber 2008	Vildagliptin; 50-100 mg daily combined; Oral	HbA1c change	%	8.55	0.95	Not applicable	Not applicable	Not applicable	264
Garber 2008	Vildagliptin; 50-100 mg daily combined; Oral	Weight change	kg	89.4	2.64	Not applicable	Not applicable	Not applicable	264

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Garvey 2020	Liraglutide; 4 mg daily; Subcutaneous	BMI change	kg/m2	35.9	6.5	Not applicable	Not applicable	Not applicable	198
Garvey 2020	Liraglutide; 4 mg daily; Subcutaneous	HbA1c change	%	7.9	1.1	Not applicable	Not applicable	Not applicable	198
Garvey 2020	Liraglutide; 4 mg daily; Subcutaneous	Weight change	kg	100.6	20.8	Not applicable	Not applicable	Not applicable	198
Garvey 2020	Placebo; None; Subcutaneous	BMI change	kg/m2	35.3	5.8	Not applicable	Not applicable	Not applicable	198
Garvey 2020	Placebo; None; Subcutaneous	HbA1c change	%	8	1	Not applicable	Not applicable	Not applicable	198
Garvey 2020	Placebo; None; Subcutaneous	Weight change	kg	98.9	19.9	Not applicable	Not applicable	Not applicable	198
Garvey 2023	Placebo; None; Subcutaneous	BMI change	kg/m2	36.6	7.3	Not applicable	Not applicable	Not applicable	315

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Garvey 2023	Placebo; None; Subcutaneous	HbA1c change	%	7.98	0.84	Not applicable	Not applicable	Not applicable	315
Garvey 2023	Placebo; None; Subcutaneous	Weight change	kg	100.7	21.1	Not applicable	Not applicable	Not applicable	315
Garvey 2023	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m2	36	6.4	Not applicable	Not applicable	Not applicable	312
Garvey 2023	Tirzepatide; 10 mg weekly; Subcutaneous	HbA1c change	%	8	0.84	Not applicable	Not applicable	Not applicable	312
Garvey 2023	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	100.9	20.9	Not applicable	Not applicable	Not applicable	312
Garvey 2023	Tirzepatide; 10-15 mg weekly combined; Subcutaneous	BMI change	kg/m2	35.85	6.25	Not applicable	Not applicable	Not applicable	623

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Garvey 2023	Tirzepatide; 10-15 mg weekly combined; Subcutaneous	HbA1c change	%	8.03	0.92	Not applicable	Not applicable	Not applicable	623
Garvey 2023	Tirzepatide; 10-15 mg weekly combined; Subcutaneous	Weight change	kg	100.25	20.5	Not applicable	Not applicable	Not applicable	623
Garvey 2023	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	35.7	6.1	Not applicable	Not applicable	Not applicable	311
Garvey 2023	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	8.07	0.99	Not applicable	Not applicable	Not applicable	311
Garvey 2023	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	99.6	20.1	Not applicable	Not applicable	Not applicable	311

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Genovese 2013	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	32.4	5.4	Not applicable	Not applicable	Not applicable	110
Genovese 2013	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	6.92	0.42	Not applicable	Not applicable	Not applicable	110
Genovese 2013	Pioglitazone; 45 mg daily; Oral	Weight change	kg	88.8	14	Not applicable	Not applicable	Not applicable	110
Genovese 2013	Placebo; None; Oral	BMI change	kg/m2	32.6	5.3	Not applicable	Not applicable	Not applicable	103
Genovese 2013	Placebo; None; Oral	HbA1c change	%	7.02	0.46	Not applicable	Not applicable	Not applicable	103
Genovese 2013	Placebo; None; Oral	Weight change	kg	89	17.2	Not applicable	Not applicable	Not applicable	103
Gerstein 2019A	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.3	5.7	Not applicable	Not applicable	Not applicable	4949
Gerstein 2019A	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	7.3	1.1	Not applicable	Not applicable	Not applicable	4949
Gerstein 2019A	Placebo; None;	BMI change	kg/m2	32.3	5.8	Not applicable	Not applicable	Not applicable	4952



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gerstein 2019A	Placebo; None; Subcutaneous	HbA1c change	%	7.4	1.1	Not applicable	Not applicable	Not applicable	4952
Giorgino 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	272
Giorgino 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	272
Giorgino 2015	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	86	18	Not applicable	Not applicable	Not applicable	272
Giorgino 2015	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	31.5	5	Not applicable	Not applicable	Not applicable	545
Giorgino 2015	Dulaglutide; 0.75-1.5 mg	HbA1c change	%	8.15	1	Not applicable	Not applicable	Not applicable	545

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Giorgino 2015	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	85.5	18	Not applicable	Not applicable	Not applicable	545
Giorgino 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	273
Giorgino 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	273
Giorgino 2015	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	85	18	Not applicable	Not applicable	Not applicable	273
Giorgino 2015	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	32	6	Not applicable	Not applicable	Not applicable	262

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Giorgino 2015	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	262
Giorgino 2015	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	88	20	Not applicable	Not applicable	Not applicable	262
Giugliano 1993	Metformin type unspecified; 1700 mg daily; Oral	BMI change	kg/m2	33	3.1	Not applicable	Not applicable	Not applicable	27
Giugliano 1993	Metformin type unspecified; 1700 mg daily; Oral	HbA1c change	%	11.5	1.2	Not applicable	Not applicable	Not applicable	27
Giugliano 1993	Placebo; None; Oral	BMI change	kg/m2	32.7	3.2	Not applicable	Not applicable	Not applicable	23
Giugliano 1993	Placebo; None; Oral	HbA1c change	%	11.7	1.3	Not applicable	Not applicable	Not applicable	23
Göke 2010	Glipizide; 5-20 mg daily; Oral	BMI change	kg/m2	31.3	4.17	Not applicable	Not applicable	Not applicable	430

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Göke 2010	Glipizide; 5-20 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	430
Göke 2010	Glipizide; 5-20 mg daily; Oral	Weight change	kg	88.6	19.64	Not applicable	Not applicable	Not applicable	430
Göke 2010	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	31.5	5.7	Not applicable	Not applicable	Not applicable	428
Göke 2010	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	428
Göke 2010	Saxagliptin; 5 mg daily; Oral	Weight change	kg	88.7	18.61	Not applicable	Not applicable	Not applicable	428
Goodman 2009	Placebo; None; Oral	BMI change	kg/m2	31.7	4.3	Not applicable	Not applicable	Not applicable	122
Goodman 2009	Placebo; None; Oral	HbA1c change	%	8.7	1.1	Not applicable	Not applicable	Not applicable	122
Goodman 2009	Vildagliptin; 100 mg daily A; Oral	BMI change	kg/m2	31	4.8	Not applicable	Not applicable	Not applicable	123
Goodman 2009	Vildagliptin; 100 mg daily A; Oral	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	123
Goodman 2009	Vildagliptin; 100 mg daily B; Oral	BMI change	kg/m2	31.7	4.6	Not applicable	Not applicable	Not applicable	124

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Goodman 2009	Vildagliptin; 100 mg daily B; Oral	HbA1c change	%	8.5	4	Not applicable	Not applicable	Not applicable	125
Goodman 2009	Vildagliptin; 100 mg daily combined; Oral	BMI change	kg/m2	31.4	4.7	Not applicable	Not applicable	Not applicable	247
Goodman 2009	Vildagliptin; 100 mg daily combined; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	248
Gough 2014	IDegLira; 3.6 mg/mL/100 units/mL; Subcutaneous	BMI change	kg/m2	31.2	5.2	Not applicable	Not applicable	Not applicable	833
Gough 2014	IDegLira; 3.6 mg/mL/100 units/mL; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	833
Gough 2014	IDegLira; 3.6 mg/mL/100 units/mL; Subcutaneous	Weight change	kg	87.2	19	Not applicable	Not applicable	Not applicable	833
Gough 2014	Insulin degludec; Titrated;	BMI change	kg/m2	31.2	5.3	Not applicable	Not applicable	Not applicable	413

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gough 2014	Insulin degludec; Titrated; Subcutaneous	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	413
Gough 2014	Insulin degludec; Titrated; Subcutaneous	Weight change	kg	87.4	19.2	Not applicable	Not applicable	Not applicable	413
Gough 2014	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	31.3	4.8	Not applicable	Not applicable	Not applicable	414
Gough 2014	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	414
Gough 2014	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	87.4	18	Not applicable	Not applicable	Not applicable	414
Gram 2011	Metformin type unspecified; 1000-2000	BMI change	kg/m2	35.7	6.4	Not applicable	Not applicable	Not applicable	45

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	mg daily 1; Oral								
Gram 2011	Metformin type unspecified; 1000-2000 mg daily 1; Oral	HbA1c change	%	8.9	1.2	Not applicable	Not applicable	Not applicable	45
Gram 2011	Metformin type unspecified; 1000-2000 mg daily 1; Oral	Weight change	kg	105.1	17.7	Not applicable	Not applicable	Not applicable	45
Gram 2011	Metformin type unspecified; 1000-2000 mg daily 2; Oral	BMI change	kg/m2	33.7	6.1	Not applicable	Not applicable	Not applicable	45
Gram 2011	Metformin type unspecified; 1000-2000 mg daily 2; Oral	HbA1c change	%	8.5	1.2	Not applicable	Not applicable	Not applicable	45
Gram 2011	Metformin type unspecified; 1000-2000	Weight change	kg	100.5	17.9	Not applicable	Not applicable	Not applicable	45

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	mg daily 2; Oral								
Gram 2011	Metformin type unspecified; 1000-2000 mg daily combined; Oral	BMI change	kg/m2	34.7	6.3	Not applicable	Not applicable	Not applicable	90
Gram 2011	Metformin type unspecified; 1000-2000 mg daily combined; Oral	HbA1c change	%	8.7	1.21	Not applicable	Not applicable	Not applicable	90
Gram 2011	Metformin type unspecified; 1000-2000 mg daily combined; Oral	Weight change	kg	102.8	17.9	Not applicable	Not applicable	Not applicable	90
Gram 2011	Placebo; Combined; Oral	BMI change	kg/m2	33.84	5.48	Not applicable	Not applicable	Not applicable	94
Gram 2011	Placebo; Combined; Oral	HbA1c change	%	8.6	1.25	Not applicable	Not applicable	Not applicable	94



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Gram 2011	Placebo; Combined; Oral	Weight change	kg	100.2	18.24	Not applicable	Not applicable	Not applicable	94
Gram 2011	Placebo; NA1; Oral	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	46
Gram 2011	Placebo; NA1; Oral	HbA1c change	%	8.7	1.3	Not applicable	Not applicable	Not applicable	46
Gram 2011	Placebo; NA1; Oral	Weight change	kg	100.2	19.8	Not applicable	Not applicable	Not applicable	46
Gram 2011	Placebo; NA2; Oral	BMI change	kg/m2	33.7	5	Not applicable	Not applicable	Not applicable	48
Gram 2011	Placebo; NA2; Oral	HbA1c change	%	8.5	1.2	Not applicable	Not applicable	Not applicable	48
Gram 2011	Placebo; NA2; Oral	Weight change	kg	98.3	16.6	Not applicable	Not applicable	Not applicable	48
Grey 2014	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	43
Grey 2014	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	7.4	3.5	Not applicable	Not applicable	Not applicable	43
Grey 2014	Pioglitazone; 15-30 mg daily; Oral	Weight change	kg	85	16	Not applicable	Not applicable	Not applicable	43
Grey 2014	Placebo; None; Oral	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	43

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Grey 2014	Placebo; None; Oral	HbA1c change	%	7.5	3.2	Not applicable	Not applicable	Not applicable	43
Grey 2014	Placebo; None; Oral	Weight change	kg	86	15	Not applicable	Not applicable	Not applicable	43
Group 2022	Glimepiride; 8 mg daily titrated; Oral	BMI change	kg/m2	34.3	6.9	Not applicable	Not applicable	Not applicable	1254
Group 2022	Glimepiride; 8 mg daily titrated; Oral	HbA1c change	%	7.5	0.5	Not applicable	Not applicable	Not applicable	1254
Group 2022	Glimepiride; 8 mg daily titrated; Oral	Weight change	kg	99.7	22.5	Not applicable	Not applicable	Not applicable	1254
Group 2022	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	34.4	6.8	Not applicable	Not applicable	Not applicable	1263
Group 2022	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	7.5	0.5	Not applicable	Not applicable	Not applicable	1263
Group 2022	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	100.7	22.3	Not applicable	Not applicable	Not applicable	1263

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Group 2022	Liraglutide; 1.8 mg daily titrated; Subcutaneous	BMI change	kg/m2	34.3	6.7	Not applicable	Not applicable	Not applicable	1262
Group 2022	Liraglutide; 1.8 mg daily titrated; Subcutaneous	HbA1c change	%	7.5	0.5	Not applicable	Not applicable	Not applicable	1262
Group 2022	Liraglutide; 1.8 mg daily titrated; Subcutaneous	Weight change	kg	100.2	22.9	Not applicable	Not applicable	Not applicable	1262
Group 2022	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	34.1	6.8	Not applicable	Not applicable	Not applicable	1268
Group 2022	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.5	0.5	Not applicable	Not applicable	Not applicable	1268
Group 2022	Sitagliptin; 100 mg daily; Oral	Weight change	kg	99.3	21.7	Not applicable	Not applicable	Not applicable	1268
Gu 2019	Glimepiride; 1-6 mg daily titrated; Oral	BMI change	kg/m2	25.6	2.9	Not applicable	Not applicable	Not applicable	186

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Gu 2019	Glimepiride; 1-6 mg daily titrated; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	186
Gu 2019	Glimepiride; 1-6 mg daily titrated; Oral	Weight change	kg	70.2	10.1	Not applicable	Not applicable	Not applicable	186
Gu 2019	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	25.3	2.3	Not applicable	Not applicable	Not applicable	187
Gu 2019	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	187
Gu 2019	Saxagliptin; 5 mg daily; Oral	Weight change	kg	70	9.7	Not applicable	Not applicable	Not applicable	187
Guja 2017	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	33.3	6.1	Not applicable	Not applicable	Not applicable	231
Guja 2017	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.53	0.91	Not applicable	Not applicable	Not applicable	231
Guja 2017	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	93.3	20	Not applicable	Not applicable	Not applicable	231

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Guja 2017	Placebo; None; Subcutaneous	BMI change	kg/m2	34.1	6.6	Not applicable	Not applicable	Not applicable	230
Guja 2017	Placebo; None; Subcutaneous	HbA1c change	%	8.53	0.92	Not applicable	Not applicable	Not applicable	230
Guja 2017	Placebo; None; Subcutaneous	Weight change	kg	94.7	19.8	Not applicable	Not applicable	Not applicable	230
Gullaksen 2023	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	94.9	6.94	1.76	91.5	98.4	18
Gullaksen 2023	Placebo; None; Oral	Weight change	kg	94.99	7.16	1.76	91.5	98.4	19
Guo 2020	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	28.3	3.8	Not applicable	Not applicable	Not applicable	30
Guo 2020	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	7.4	0.9	Not applicable	Not applicable	Not applicable	30
Guo 2020	Insulin glargine;	Weight change	kg	83.8	11.2	Not applicable	Not applicable	Not applicable	30

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Titrate Subcutaneous								
Guo 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	BMI change	kg/m <sup>2</sup>	29.2	4.2	Not applicable	Not applicable	Not applicable	31
Guo 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	HbA1c change	%	7.5	1.3	Not applicable	Not applicable	Not applicable	31
Guo 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	Weight change	kg	84.3	10.8	Not applicable	Not applicable	Not applicable	31
Guo 2020	Placebo; None; Subcutaneous	BMI change	kg/m <sup>2</sup>	28.6	3.7	Not applicable	Not applicable	Not applicable	30
Guo 2020	Placebo; None; Subcutaneous	HbA1c change	%	7.4	1	Not applicable	Not applicable	Not applicable	30
Guo 2020	Placebo; None;	Weight change	kg	82.2	12.4	Not applicable	Not applicable	Not applicable	30

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Gurkan 2014	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	35.89	3.7	Not applicable	Not applicable	Not applicable	17
Gurkan 2014	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	7.95	0.81	Not applicable	Not applicable	Not applicable	17
Gurkan 2014	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	94.34	11.77	Not applicable	Not applicable	Not applicable	17
Gurkan 2014	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	33.21	4.45	Not applicable	Not applicable	Not applicable	17
Gurkan 2014	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.11	0.76	Not applicable	Not applicable	Not applicable	17
Gurkan 2014	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	90.51	14.32	Not applicable	Not applicable	Not applicable	17

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Guzman 2017	Placebo; None; Subcutaneous	BMI change	kg/m2	31.2	4.9	Not applicable	Not applicable	Not applicable	68
Guzman 2017	Placebo; None; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	68
Guzman 2017	Placebo; None; Subcutaneous	Weight change	kg	85.7	17.9	Not applicable	Not applicable	Not applicable	68
Guzman 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.8	6.1	Not applicable	Not applicable	Not applicable	41
Guzman 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	41
Guzman 2017	Sitagliptin; 100 mg daily; Oral	Weight change	kg	94	20.9	Not applicable	Not applicable	Not applicable	41
Handelsman 2019	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	BMI change	kg/m2	33.3	6.1	Not applicable	Not applicable	Not applicable	232
Handelsman 2019	Dapagliflozin + Saxagliptin; 10 mg + 5	HbA1c change	%	8.8	0.8	Not applicable	Not applicable	Not applicable	232



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	mg daily; Oral								
Handelsman 2019	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.8	6.3	Not applicable	Not applicable	Not applicable	229
Handelsman 2019	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.9	0.9	Not applicable	Not applicable	Not applicable	229
Hanefeld 2004	Metformin type unspecified; 850-2550 mg daily; Oral	BMI change	kg/m2	30	4.6	Not applicable	Not applicable	Not applicable	320
Hanefeld 2004	Metformin type unspecified; 850-2550 mg daily; Oral	HbA1c change	%	8.8	0.7	Not applicable	Not applicable	Not applicable	320
Hanefeld 2004	Metformin type unspecified; 850-2550 mg daily; Oral	Weight change	kg	84.9	14.5	Not applicable	Not applicable	Not applicable	320
Hanefeld 2004	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	30.2	4.4	Not applicable	Not applicable	Not applicable	319
Hanefeld 2004	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	8.82	0.98	Not applicable	Not applicable	Not applicable	319

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hanefeld 2004	Pioglitazone; 15-45 mg daily; Oral	Weight change	kg	85.3	15.1	Not applicable	Not applicable	Not applicable	319
Hanefeld 2011	Metformin type unspecified; 1700 mg daily; Oral	BMI change	kg/m2	31.8	5	Not applicable	Not applicable	Not applicable	42
Hanefeld 2011	Metformin type unspecified; 1700 mg daily; Oral	HbA1c change	%	7.35	0.53	Not applicable	Not applicable	Not applicable	42
Hanefeld 2011	Metformin type unspecified; 1700 mg daily; Oral	Weight change	kg	89.4	13.8	Not applicable	Not applicable	Not applicable	42
Hanefeld 2011	Pioglitazone + Metformin; 30 mg + 1700 mg daily; Oral	BMI change	kg/m2	33.1	6.4	Not applicable	Not applicable	Not applicable	39
Hanefeld 2011	Pioglitazone + Metformin; 30 mg + 1700 mg daily; Oral	HbA1c change	%	7.34	0.54	Not applicable	Not applicable	Not applicable	39

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hanefeld 2011	Pioglitazone + Metformin; 30 mg + 1700 mg daily; Oral	Weight change	kg	96.6	20.9	Not applicable	Not applicable	Not applicable	39
Hanefeld 2011	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	31.7	4.3	Not applicable	Not applicable	Not applicable	40
Hanefeld 2011	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.33	0.53	Not applicable	Not applicable	Not applicable	40
Hanefeld 2011	Pioglitazone; 30 mg daily; Oral	Weight change	kg	91.9	16.2	Not applicable	Not applicable	Not applicable	40
Hao 2022	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	29.6	4.2	Not applicable	Not applicable	Not applicable	166
Hao 2022	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.8	1.41	Not applicable	Not applicable	Not applicable	166
Hao 2022	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	84.3	15	Not applicable	Not applicable	Not applicable	166
Hao 2022	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	30.2	4.3	Not applicable	Not applicable	Not applicable	143

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hao 2022	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.92	1.49	Not applicable	Not applicable	Not applicable	143
Hao 2022	Liraglutide; 1.2 mg daily; Subcutaneous	Weight change	kg	85.5	14.5	Not applicable	Not applicable	Not applicable	143
Haring 2013	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.07	0.81	Not applicable	Not applicable	Not applicable	225
Haring 2013	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	77.1	18.3	Not applicable	Not applicable	Not applicable	225
Haring 2013	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.08	0.82	Not applicable	Not applicable	Not applicable	441
Haring 2013	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	77.3	18.53	Not applicable	Not applicable	Not applicable	441
Haring 2013	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.1	0.83	Not applicable	Not applicable	Not applicable	216

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Haring 2013	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	77.5	18.8	Not applicable	Not applicable	Not applicable	216
Haring 2013	Placebo; None; Oral	HbA1c change	%	8.15	0.83	Not applicable	Not applicable	Not applicable	225
Haring 2013	Placebo; None; Oral	Weight change	kg	76.2	16.9	Not applicable	Not applicable	Not applicable	225
Haring 2014	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	29.1	5.5	Not applicable	Not applicable	Not applicable	217
Haring 2014	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.94	0.79	Not applicable	Not applicable	Not applicable	217
Haring 2014	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	81.6	18.5	Not applicable	Not applicable	Not applicable	217
Haring 2014	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	29.4	5.6	Not applicable	Not applicable	Not applicable	430
Haring 2014	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	7.9	0.83	Not applicable	Not applicable	Not applicable	430
Haring 2014	Empagliflozin ; 10-25 mg daily	Weight change	kg	81.9	18.9	Not applicable	Not applicable	Not applicable	430

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Haring 2014	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	29.7	5.7	Not applicable	Not applicable	Not applicable	213
Haring 2014	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	7.86	0.87	Not applicable	Not applicable	Not applicable	213
Haring 2014	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	82.2	19.3	Not applicable	Not applicable	Not applicable	213
Haring 2014	Placebo; None; Oral	BMI change	kg/m2	28.7	5.2	Not applicable	Not applicable	Not applicable	207
Haring 2014	Placebo; None; Oral	HbA1c change	%	7.9	0.88	Not applicable	Not applicable	Not applicable	207
Haring 2014	Placebo; None; Oral	Weight change	kg	79.7	18.6	Not applicable	Not applicable	Not applicable	207
Harreiter 2021	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	31.9	4.6	Not applicable	Not applicable	Not applicable	16
Harreiter 2021	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	7.8	1.3	Not applicable	Not applicable	Not applicable	16
Harreiter 2021	Exenatide; 2 mg weekly;	Weight change	kg	99.1	20.6	Not applicable	Not applicable	Not applicable	16

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Harreiter 2021	Placebo; None; Subcutaneous	BMI change	kg/m2	30.7	3.5	Not applicable	Not applicable	Not applicable	14
Harreiter 2021	Placebo; None; Subcutaneous	HbA1c change	%	7.3	0.6	Not applicable	Not applicable	Not applicable	14
Harreiter 2021	Placebo; None; Subcutaneous	Weight change	kg	93.5	14.2	Not applicable	Not applicable	Not applicable	14
Hartemann-Heurtier 2009	NPH Insulin; 0.2 units/kg daily; Subcutaneous	BMI change	kg/m2	32	4	Not applicable	Not applicable	Not applicable	13
Hartemann-Heurtier 2009	NPH Insulin; 0.2 units/kg daily; Subcutaneous	HbA1c change	%	8.6	0.5	Not applicable	Not applicable	Not applicable	13
Hartemann-Heurtier 2009	NPH Insulin; 0.2 units/kg daily; Subcutaneous	Weight change	kg	90	14	Not applicable	Not applicable	Not applicable	13

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hartemann-Heurtier 2009	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	30	5	Not applicable	Not applicable	Not applicable	14
Hartemann-Heurtier 2009	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.3	0.5	Not applicable	Not applicable	Not applicable	14
Hartemann-Heurtier 2009	Pioglitazone; 30 mg daily; Oral	Weight change	kg	85	13	Not applicable	Not applicable	Not applicable	14
Heine 2005	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	31.4	4.4	Not applicable	Not applicable	Not applicable	282
Heine 2005	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	282
Heine 2005	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	87.5	16.9	Not applicable	Not applicable	Not applicable	282
Heine 2005	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	31.3	4.6	Not applicable	Not applicable	Not applicable	267
Heine 2005	Insulin glargine; Titrated;	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	267



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Heine 2005	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	88.3	17.9	Not applicable	Not applicable	Not applicable	267
Heise 2022	Placebo; None; Subcutaneous	HbA1c change	%	7.9	0.51	Not applicable	Not applicable	Not applicable	28
Heise 2022	Placebo; None; Subcutaneous	Weight change	kg	99.1	2.7	Not applicable	Not applicable	Not applicable	24
Heise 2022	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	7.7	0.6	Not applicable	Not applicable	Not applicable	44
Heise 2022	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	92.2	2.2	Not applicable	Not applicable	Not applicable	39
Heise 2022	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	7.83	0.72	Not applicable	Not applicable	Not applicable	45

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Heise 2022	Tirzepatide; 15 mg weekly; Subcutaneous	Weight change	kg	94.1	2.1	Not applicable	Not applicable	Not applicable	39
Henriksen 2011	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	33.2	5	Not applicable	Not applicable	Not applicable	102
Henriksen 2011	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.7	1.4	Not applicable	Not applicable	Not applicable	102
Henriksen 2011	Placebo; None; Oral	BMI change	kg/m2	33.9	5.5	Not applicable	Not applicable	Not applicable	106
Henriksen 2011	Placebo; None; Oral	HbA1c change	%	8.5	1.3	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 1	Placebo; None; Oral	BMI change	kg/m2	30.7	6.4	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 1	Placebo; None; Oral	HbA1c change	%	8.43	0.8	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 1	Placebo; None; Oral	Weight change	kg	85.1	22.6	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 1	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31	6.7	Not applicable	Not applicable	Not applicable	106

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hermansen 2007 - Stratum 1	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.42	0.79	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 1	Sitagliptin; 100 mg daily; Oral	Weight change	kg	85.8	22.5	Not applicable	Not applicable	Not applicable	106
Hermansen 2007 - Stratum 2	Placebo; None; Oral	BMI change	kg/m2	30.7	6.2	Not applicable	Not applicable	Not applicable	113
Hermansen 2007 - Stratum 2	Placebo; None; Oral	HbA1c change	%	8.26	0.68	Not applicable	Not applicable	Not applicable	113
Hermansen 2007 - Stratum 2	Placebo; None; Oral	Weight change	kg	86.7	21.1	Not applicable	Not applicable	Not applicable	113
Hermansen 2007 - Stratum 2	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.3	5.9	Not applicable	Not applicable	Not applicable	116
Hermansen 2007 - Stratum 2	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.27	0.73	Not applicable	Not applicable	Not applicable	116
Hermansen 2007 - Stratum 2	Sitagliptin; 100 mg daily; Oral	Weight change	kg	87.2	19.7	Not applicable	Not applicable	Not applicable	116
Hollander 2009	Placebo; None; Oral	BMI change	kg/m2	30.3	5.8	Not applicable	Not applicable	Not applicable	184
Hollander 2009	Placebo; None; Oral	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	184

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hollander 2009	Placebo; None; Oral	Weight change	kg	80.9	21.5	Not applicable	Not applicable	Not applicable	184
Hollander 2009	Saxagliptin; 2.5 mg daily; Oral	BMI change	kg/m2	30	5.8	Not applicable	Not applicable	Not applicable	195
Hollander 2009	Saxagliptin; 2.5 mg daily; Oral	HbA1c change	%	8.3	1.1	Not applicable	Not applicable	Not applicable	195
Hollander 2009	Saxagliptin; 2.5 mg daily; Oral	Weight change	kg	82.1	22	Not applicable	Not applicable	Not applicable	195
Hollander 2009	Saxagliptin; 2.5-5 mg daily combined; Oral	BMI change	kg/m2	29.9	5.56	Not applicable	Not applicable	Not applicable	381
Hollander 2009	Saxagliptin; 2.5-5 mg daily combined; Oral	HbA1c change	%	8.35	1.1	Not applicable	Not applicable	Not applicable	381
Hollander 2009	Saxagliptin; 2.5-5 mg daily combined; Oral	Weight change	kg	81.27	20.76	Not applicable	Not applicable	Not applicable	381
Hollander 2009	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.8	5.3	Not applicable	Not applicable	Not applicable	186

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hollander 2009	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	186
Hollander 2009	Saxagliptin; 5 mg daily; Oral	Weight change	kg	80.4	19.4	Not applicable	Not applicable	Not applicable	186
Hollander 2018	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	31.3	6.2	Not applicable	Not applicable	Not applicable	440
Hollander 2018	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	7.8	0.6	Not applicable	Not applicable	Not applicable	440
Hollander 2018	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	85.6	19.1	Not applicable	Not applicable	Not applicable	440
Hollander 2018	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	31.7	5.5	Not applicable	Not applicable	Not applicable	448
Hollander 2018	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	7.8	0.6	Not applicable	Not applicable	Not applicable	448
Hollander 2018	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	87.9	18.9	Not applicable	Not applicable	Not applicable	448
Hollander 2018	Ertugliflozin; 5-15 mg daily combined; Oral	BMI change	kg/m2	31.5	5.9	Not applicable	Not applicable	Not applicable	888

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hollander 2018	Ertugliflozin; 5-15 mg daily combined; Oral	HbA1c change	%	7.8	0.6	Not applicable	Not applicable	Not applicable	888
Hollander 2018	Ertugliflozin; 5-15 mg daily combined; Oral	Weight change	kg	86.8	19	Not applicable	Not applicable	Not applicable	888
Hollander 2018	Glimepiride; 1-8 mg daily; Oral	BMI change	kg/m2	31.2	6.4	Not applicable	Not applicable	Not applicable	437
Hollander 2018	Glimepiride; 1-8 mg daily; Oral	HbA1c change	%	7.8	0.6	Not applicable	Not applicable	Not applicable	437
Hollander 2018	Glimepiride; 1-8 mg daily; Oral	Weight change	kg	86.8	20.7	Not applicable	Not applicable	Not applicable	437
Home 2015	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	32.2	5.7	Not applicable	Not applicable	Not applicable	277
Home 2015	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.29	0.88	Not applicable	Not applicable	Not applicable	277
Home 2015	Pioglitazone; 30 mg daily; Oral	Weight change	kg	91	21.2	Not applicable	Not applicable	Not applicable	277
Home 2015	Placebo; None; Oral	BMI change	kg/m2	31.8	4.9	Not applicable	Not applicable	Not applicable	115

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Home 2015	Placebo; None; Oral	HbA1c change	%	8.26	0.98	Not applicable	Not applicable	Not applicable	115
Home 2015	Placebo; None; Oral	Weight change	kg	89.9	18.8	Not applicable	Not applicable	Not applicable	115
Hong 2012	Insulin type unspecified; Titrated; Subcutaneous	BMI change	kg/m2	25.2	3	Not applicable	Not applicable	Not applicable	63
Hong 2012	Insulin type unspecified; Titrated; Subcutaneous	HbA1c change	%	9.2	1.1	Not applicable	Not applicable	Not applicable	63
Hong 2012	Insulin type unspecified; Titrated; Subcutaneous	Weight change	kg	66.2	10.6	Not applicable	Not applicable	Not applicable	63
Hong 2012	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.9	3.4	Not applicable	Not applicable	Not applicable	61
Hong 2012	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	9.2	1	Not applicable	Not applicable	Not applicable	61
Hong 2012	Sitagliptin; 100 mg daily; Oral	Weight change	kg	68.6	11.6	Not applicable	Not applicable	Not applicable	61

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Hong 2023	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	25.6	2.9	Not applicable	Not applicable	Not applicable	26
Hong 2023	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.9	1.2	Not applicable	Not applicable	Not applicable	26
Hong 2023	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	69.6	10.4	Not applicable	Not applicable	Not applicable	26
Hong 2023	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.1	2.8	Not applicable	Not applicable	Not applicable	26
Hong 2023	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	26
Hong 2023	Sitagliptin; 100 mg daily; Oral	Weight change	kg	66.9	10.5	Not applicable	Not applicable	Not applicable	26
Husain 2019	Placebo; None; Oral	BMI change	kg/m2	32.3	6.4	Not applicable	Not applicable	Not applicable	1592
Husain 2019	Placebo; None; Oral	HbA1c change	%	8.2	1.6	Not applicable	Not applicable	Not applicable	1592
Husain 2019	Placebo; None; Oral	Weight change	kg	90.8	21	Not applicable	Not applicable	Not applicable	1592
Husain 2019	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	32.3	6.6	Not applicable	Not applicable	Not applicable	1591



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Husain 2019	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8.2	1.6	Not applicable	Not applicable	Not applicable	1591
Husain 2019	Semaglutide; 14 mg daily; Oral	Weight change	kg	91	21.4	Not applicable	Not applicable	Not applicable	1591
Iacobellis 2017	Liraglutide + Metformin; 1.8 mg + 1000-2000 mg daily; Oral + Subcutaneous	BMI change	kg/m2	97.8	7.3	Not applicable	Not applicable	Not applicable	54
Iacobellis 2017	Liraglutide + Metformin; 1.8 mg + 1000-2000 mg daily; Oral + Subcutaneous	HbA1c change	%	6.6	0.8	Not applicable	Not applicable	Not applicable	54
Iacobellis 2017	Liraglutide + Metformin; 1.8 mg + 1000-2000 mg daily; Oral + Subcutaneous	Weight change	kg	104.5	22.3	Not applicable	Not applicable	Not applicable	54

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Iacobellis 2017	Metformin type unspecified; 1000-2000 mg daily; Oral	BMI change	kg/m2	32.6	6.7	Not applicable	Not applicable	Not applicable	41
Iacobellis 2017	Metformin type unspecified; 1000-2000 mg daily; Oral	HbA1c change	%	6.4	0.6	Not applicable	Not applicable	Not applicable	41
Iacobellis 2017	Metformin type unspecified; 1000-2000 mg daily; Oral	Weight change	kg	87.3	18.3	Not applicable	Not applicable	Not applicable	41
Iacobellis 2020	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	36.6	7.8	Not applicable	Not applicable	Not applicable	50
Iacobellis 2020	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	6.8	0.9	Not applicable	Not applicable	Not applicable	50
Iacobellis 2020	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	104	28	Not applicable	Not applicable	Not applicable	50
Iacobellis 2020	Placebo; None; Oral	BMI change	kg/m2	34.7	6	Not applicable	Not applicable	Not applicable	50

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Iacobellis 2020	Placebo; None; Oral	HbA1c change	%	6.7	0.8	Not applicable	Not applicable	Not applicable	50
Iacobellis 2020	Placebo; None; Oral	Weight change	kg	96.9	23	Not applicable	Not applicable	Not applicable	50
Iijima 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	25.1	3.9	Not applicable	Not applicable	Not applicable	16
Iijima 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	6.5	0.6	Not applicable	Not applicable	Not applicable	16
Iijima 2023	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	72.7	14.9	Not applicable	Not applicable	Not applicable	16
Iijima 2023	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	27	6.6	Not applicable	Not applicable	Not applicable	16
Iijima 2023	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	6.4	0.8	Not applicable	Not applicable	Not applicable	16

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Iijima 2023	Semaglutide; 0.5 mg weekly; Subcutaneous	Weight change	kg	72.3	20.2	Not applicable	Not applicable	Not applicable	16
Ikonomidis 2020	Basal insulin; 10-50 units daily; Subcutaneous	BMI change	kg/m2	29.7	3	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Basal insulin; 10-50 units daily; Subcutaneous	HbA1c change	%	8.2	1.2	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Basal insulin; 10-50 units daily; Subcutaneous	Weight change	kg	85.5	8	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Empagliflozin + Liraglutide; 25 mg + 1.8 mg daily; Oral + Subcutaneous	BMI change	kg/m2	30.5	3	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Empagliflozin + Liraglutide;	HbA1c change	%	8.2	1.2	Not applicable	Not applicable	Not applicable	40

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	25 mg + 1.8 mg daily; Oral + Subcutaneous								
Ikonomidis 2020	Empagliflozin + Liraglutide; 25 mg + 1.8 mg daily; Oral + Subcutaneous	Weight change	kg	87.9	10	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	29.8	3	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	7.8	0.9	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	84.6	9	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30	4	Not applicable	Not applicable	Not applicable	40
Ikonomidis 2020	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8	1.1	Not applicable	Not applicable	Not applicable	40

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ikonomidis 2020	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	87.1	12	Not applicable	Not applicable	Not applicable	40
Inagaki 2012	Exenatide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	26.11	4.03	Not applicable	Not applicable	Not applicable	215
Inagaki 2012	Exenatide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.51	0.82	Not applicable	Not applicable	Not applicable	215
Inagaki 2012	Exenatide; 2 mg weekly; Subcutaneous	Weight change	kg	69.95	13.25	Not applicable	Not applicable	Not applicable	215
Inagaki 2012	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	26.18	3.77	Not applicable	Not applicable	Not applicable	212
Inagaki 2012	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.5	0.79	Not applicable	Not applicable	Not applicable	212
Inagaki 2012	Insulin glargine; Titrated;	Weight change	kg	71.03	13.93	Not applicable	Not applicable	Not applicable	212

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Inagaki 2013	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	24.6	4.2	Not applicable	Not applicable	Not applicable	185
Inagaki 2013	Linagliptin; 5 mg daily; Oral	Weight change	kg	65.6	13.4	Not applicable	Not applicable	Not applicable	185
Inagaki 2013	Metformin type unspecified; 500-2250 mg daily; Oral	BMI change	kg/m2	25.5	4.1	Not applicable	Not applicable	Not applicable	124
Inagaki 2013	Metformin type unspecified; 500-2250 mg daily; Oral	Weight change	kg	67.9	14.2	Not applicable	Not applicable	Not applicable	124
Jabbour 2014	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	223
Jabbour 2014	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	91	21.6	Not applicable	Not applicable	Not applicable	223
Jabbour 2014	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	224
Jabbour 2014	Placebo; None; Oral	Weight change	kg	89.2	20.9	Not applicable	Not applicable	Not applicable	224

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ji 2016B	Metformin; 2000 mg daily; Oral	BMI change	kg/m2	25.1	3.2	Not applicable	Not applicable	Not applicable	484
Ji 2016B	Metformin; 2000 mg daily; Oral	HbA1c change	%	7.2	0.8	Not applicable	Not applicable	Not applicable	484
Ji 2016B	Metformin; 2000 mg daily; Oral	Weight change	kg	68.7	11.5	Not applicable	Not applicable	Not applicable	484
Ji 2016B	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.1	3.2	Not applicable	Not applicable	Not applicable	2501
Ji 2016B	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.2	0.9	Not applicable	Not applicable	Not applicable	2501
Ji 2016B	Vildagliptin; 100 mg daily; Oral	Weight change	kg	69.3	11.2	Not applicable	Not applicable	Not applicable	2501
Ji 2019	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	25.7	3.2	Not applicable	Not applicable	Not applicable	169
Ji 2019	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	169
Ji 2019	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	69.5	10.9	Not applicable	Not applicable	Not applicable	169



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ji 2019	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	26	2.8	Not applicable	Not applicable	Not applicable	170
Ji 2019	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	170
Ji 2019	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	71.4	11.1	Not applicable	Not applicable	Not applicable	170
Ji 2019	Ertugliflozin; 5-15 mg daily combined; Oral	BMI change	kg/m2	25.9	3	Not applicable	Not applicable	Not applicable	339
Ji 2019	Ertugliflozin; 5-15 mg daily combined; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	339
Ji 2019	Ertugliflozin; 5-15 mg daily combined; Oral	Weight change	kg	70.5	11	Not applicable	Not applicable	Not applicable	339
Ji 2019	Placebo; None; Oral	BMI change	kg/m2	26.1	3.4	Not applicable	Not applicable	Not applicable	167
Ji 2019	Placebo; None; Oral	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	167
Ji 2019	Placebo; None; Oral	Weight change	kg	70.1	12.4	Not applicable	Not applicable	Not applicable	167

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ji 2021A	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	28.2	5	Not applicable	Not applicable	Not applicable	288
Ji 2021A	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	288
Ji 2021A	Semaglutide; 0.5 mg weekly; Subcutaneous	Weight change	kg	77.6	16.4	Not applicable	Not applicable	Not applicable	288
Ji 2021A	Semaglutide; 0.5-1.0 mg weekly combined; Subcutaneous	BMI change	kg/m2	28.1	5	Not applicable	Not applicable	Not applicable	578
Ji 2021A	Semaglutide; 0.5-1.0 mg weekly combined; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	578
Ji 2021A	Semaglutide; 0.5-1.0 mg	Weight change	kg	76.9	16.4	Not applicable	Not applicable	Not applicable	578

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Ji 2021A	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	27.9	5	Not applicable	Not applicable	Not applicable	290
Ji 2021A	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	290
Ji 2021A	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	76.1	16.3	Not applicable	Not applicable	Not applicable	290
Ji 2021A	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	27.3	4.7	Not applicable	Not applicable	Not applicable	290
Ji 2021A	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	290
Ji 2021A	Sitagliptin; 100 mg daily; Oral	Weight change	kg	75.5	14.7	Not applicable	Not applicable	Not applicable	290
Ji 2023	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	26.41	3.01	Not applicable	Not applicable	Not applicable	73

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ji 2023	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.64	0.91	Not applicable	Not applicable	Not applicable	73
Ji 2023	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	71.79	11.63	Not applicable	Not applicable	Not applicable	73
Ji 2023	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.64	0.9	Not applicable	Not applicable	Not applicable	146
Ji 2023	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	70.33	11.05	Not applicable	Not applicable	Not applicable	146
Ji 2023	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	25.4	2.81	Not applicable	Not applicable	Not applicable	73
Ji 2023	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.64	0.88	Not applicable	Not applicable	Not applicable	73
Ji 2023	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	68.88	10.46	Not applicable	Not applicable	Not applicable	73
Ji 2023	Placebo; None; Oral	BMI change	kg/m2	25.87	2.52	Not applicable	Not applicable	Not applicable	73

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ji 2023	Placebo; None; Oral	HbA1c change	%	8.64	0.81	Not applicable	Not applicable	Not applicable	73
Ji 2023	Placebo; None; Oral	Weight change	kg	69.03	10.23	Not applicable	Not applicable	Not applicable	73
Jiang 2021B	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	26.65	4.06	Not applicable	Not applicable	Not applicable	79
Jiang 2021B	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.96	1.23	Not applicable	Not applicable	Not applicable	79
Jiang 2021B	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	74.14	11.63	Not applicable	Not applicable	Not applicable	79
Jiang 2021B	Liraglutide; 1.8 mg daily titrated; Subcutaneous	BMI change	kg/m2	26.62	3.68	Not applicable	Not applicable	Not applicable	77
Jiang 2021B	Liraglutide; 1.8 mg daily titrated; Subcutaneous	HbA1c change	%	8.99	1.34	Not applicable	Not applicable	Not applicable	77
Jiang 2021B	Liraglutide; 1.8 mg daily titrated; Subcutaneous	Weight change	kg	74.3	10.52	Not applicable	Not applicable	Not applicable	77

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	35.5	4.2	Not applicable	Not applicable	Not applicable	28
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.8	0.8	Not applicable	Not applicable	Not applicable	28
Joubert 2021	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	95	16.7	Not applicable	Not applicable	Not applicable	28
Joubert 2021	Placebo; None; Subcutaneous	BMI change	kg/m2	35.1	4.4	Not applicable	Not applicable	Not applicable	18
Joubert 2021	Placebo; None; Subcutaneous	HbA1c change	%	8.9	0.9	Not applicable	Not applicable	Not applicable	18
Joubert 2021	Placebo; None; Subcutaneous	Weight change	kg	99.3	17.7	Not applicable	Not applicable	Not applicable	18
Kadowaki 2011	Exenatide; 10 mcg daily; Subcutaneous	BMI change	kg/m2	25	4.1	Not applicable	Not applicable	Not applicable	72

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kadowaki 2011	Exenatide; 10 mcg daily; Subcutaneous	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	72
Kadowaki 2011	Exenatide; 10 mcg daily; Subcutaneous	Weight change	kg	6.7	11.5	Not applicable	Not applicable	Not applicable	72
Kadowaki 2011	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	25.4	4.01	Not applicable	Not applicable	Not applicable	144
Kadowaki 2011	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	8.25	0.9	Not applicable	Not applicable	Not applicable	144
Kadowaki 2011	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	37.9	33.3	Not applicable	Not applicable	Not applicable	144
Kadowaki 2011	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	25.8	3.9	Not applicable	Not applicable	Not applicable	72
Kadowaki 2011	Exenatide; 20 mcg daily;	HbA1c change	%	8.2	1	Not applicable	Not applicable	Not applicable	72

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Kadowaki 2011	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	69.1	11.2	Not applicable	Not applicable	Not applicable	72
Kadowaki 2011	Placebo; None; Subcutaneous	BMI change	kg/m2	25.8	4.2	Not applicable	Not applicable	Not applicable	35
Kadowaki 2011	Placebo; None; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	35
Kadowaki 2011	Placebo; None; Subcutaneous	Weight change	kg	70.3	13.3	Not applicable	Not applicable	Not applicable	35
Kadowaki 2017	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	25.53	4.21	Not applicable	Not applicable	Not applicable	70
Kadowaki 2017	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.18	0.9	Not applicable	Not applicable	Not applicable	70
Kadowaki 2017	Canagliflozin; 100 mg daily; Oral	Weight change	kg	71.33	15.94	Not applicable	Not applicable	Not applicable	70
Kadowaki 2017	Placebo; None; Oral	BMI change	kg/m2	26.44	3.87	Not applicable	Not applicable	Not applicable	68



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kadowaki 2017	Placebo; None; Oral	HbA1c change	%	7.87	0.83	Not applicable	Not applicable	Not applicable	68
Kadowaki 2017	Placebo; None; Oral	Weight change	kg	73.26	12.91	Not applicable	Not applicable	Not applicable	68
Kaku 2009A	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	25.6	4.2	Not applicable	Not applicable	Not applicable	83
Kaku 2009A	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	7.58	1	Not applicable	Not applicable	Not applicable	83
Kaku 2009A	Placebo; None; Oral	BMI change	kg/m2	25.4	3.6	Not applicable	Not applicable	Not applicable	86
Kaku 2009A	Placebo; None; Oral	HbA1c change	%	7.55	0.9	Not applicable	Not applicable	Not applicable	86
Kaku 2010	Liraglutide; 0.6 mg daily; Subcutaneous	BMI change	kg/m2	25.3	3.6	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Liraglutide; 0.6 mg daily; Subcutaneous	HbA1c change	%	9	0.91	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Liraglutide; 0.6 mg daily; Subcutaneous	Weight change	kg	66.2	12	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Liraglutide; 0.6-0.9 mg	BMI change	kg/m2	24.9	3.7	Not applicable	Not applicable	Not applicable	176

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	daily combined; Subcutaneous								
Kaku 2010	Liraglutide; 0.6-0.9 mg daily combined; Subcutaneous	HbA1c change	%	8.81	0.87	Not applicable	Not applicable	Not applicable	176
Kaku 2010	Liraglutide; 0.6-0.9 mg daily combined; Subcutaneous	Weight change	kg	65.35	12	Not applicable	Not applicable	Not applicable	176
Kaku 2010	Liraglutide; 0.9 mg daily; Subcutaneous	BMI change	kg/m2	24.4	3.8	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Liraglutide; 0.9 mg daily; Subcutaneous	HbA1c change	%	8.61	0.78	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Liraglutide; 0.9 mg daily; Subcutaneous	Weight change	kg	64.5	12	Not applicable	Not applicable	Not applicable	88

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kaku 2010	Placebo; None; Subcutaneous	BMI change	kg/m2	24.9	4	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Placebo; None; Subcutaneous	HbA1c change	%	8.85	0.99	Not applicable	Not applicable	Not applicable	88
Kaku 2010	Placebo; None; Subcutaneous	Weight change	kg	8.85	0.99	Not applicable	Not applicable	Not applicable	88
Kanazawa 2010	Metformin type unspecified; 500-750 mg daily; Oral	BMI change	kg/m2	24.9	3.7	Not applicable	Not applicable	Not applicable	23
Kanazawa 2010	Metformin type unspecified; 500-750 mg daily; Oral	HbA1c change	%	7.9	1.3	Not applicable	Not applicable	Not applicable	23
Kanazawa 2010	Metformin type unspecified; 500-750 mg daily; Oral	Weight change	kg	62.2	10.9	Not applicable	Not applicable	Not applicable	23

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kanazawa 2010	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	22	2.3	Not applicable	Not applicable	Not applicable	22
Kanazawa 2010	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	7.9	1.7	Not applicable	Not applicable	Not applicable	22
Kanazawa 2010	Pioglitazone; 15-30 mg daily; Oral	Weight change	kg	57.6	8.4	Not applicable	Not applicable	Not applicable	22
Kaneto 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	BMI change	kg/m2	25.32	4.18	Not applicable	Not applicable	Not applicable	255
Kaneto 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	HbA1c change	%	8.24	0.5	Not applicable	Not applicable	Not applicable	255
Kaneto 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	Weight change	kg	67.41	13.42	Not applicable	Not applicable	Not applicable	255
Kaneto 2020	Insulin glargine;	BMI change	kg/m2	24.88	3.85	Not applicable	Not applicable	Not applicable	257

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Titrate d; Subcutaneous								
Kaneto 2020	Insulin glargine; Titrate d; Subcutaneous	HbA1c change	%	8.25	0.51	Not applicable	Not applicable	Not applicable	257
Kaneto 2020	Insulin glargine; Titrate d; Subcutaneous	Weight change	kg	65.93	13.6	Not applicable	Not applicable	Not applicable	257
Kang 2021	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	27.61	2.03	Not applicable	Not applicable	Not applicable	79
Kang 2021	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	9.73	1.97	Not applicable	Not applicable	Not applicable	79
Kang 2021	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	75.24	8.17	Not applicable	Not applicable	Not applicable	79

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kang 2021	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	27.06	1.94	Not applicable	Not applicable	Not applicable	80
Kang 2021	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	9.64	1.55	Not applicable	Not applicable	Not applicable	80
Kang 2021	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	73.58	6.11	Not applicable	Not applicable	Not applicable	80
Kawamori 2018	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	26	3.8	Not applicable	Not applicable	Not applicable	182
Kawamori 2018	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.27	0.65	Not applicable	Not applicable	Not applicable	182
Kawamori 2018	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	71.2	12.6	Not applicable	Not applicable	Not applicable	182
Kawamori 2018	Placebo; None; Oral	BMI change	kg/m2	26.6	4.5	Not applicable	Not applicable	Not applicable	93
Kawamori 2018	Placebo; None; Oral	HbA1c change	%	8.36	0.74	Not applicable	Not applicable	Not applicable	93

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kawamori 2018	Placebo; None; Oral	Weight change	kg	73.1	15.9	Not applicable	Not applicable	Not applicable	93
Kellerer 2022	Insulin aspart; 300 units/mL daily; Subcutaneous	BMI change	kg/m2	31.7	5.5	Not applicable	Not applicable	Not applicable	874
Kellerer 2022	Insulin aspart; 300 units/mL daily; Subcutaneous	HbA1c change	%	8.5	0.7	Not applicable	Not applicable	Not applicable	874
Kellerer 2022	Insulin aspart; 300 units/mL daily; Subcutaneous	Weight change	kg	88.1	18.4	Not applicable	Not applicable	Not applicable	874
Kellerer 2022	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	31.4	5.5	Not applicable	Not applicable	Not applicable	874
Kellerer 2022	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.6	0.7	Not applicable	Not applicable	Not applicable	874

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kellerer 2022	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	87.6	18.1	Not applicable	Not applicable	Not applicable	874
Kendall 2005	Exenatide; 10 mcg daily; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	245
Kendall 2005	Exenatide; 10 mcg daily; Subcutaneous	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	245
Kendall 2005	Exenatide; 10 mcg daily; Subcutaneous	Weight change	kg	97	19	Not applicable	Not applicable	Not applicable	245
Kendall 2005	Exenatide; 10-20 mcg daily combined; Subcutaneous	BMI change	kg/m2	34	5	Not applicable	Not applicable	Not applicable	247
Kendall 2005	Exenatide; 10-20 mcg daily combined; Subcutaneous	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	247



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kendall 2005	Exenatide; 10-20 mcg daily combined; Subcutaneous	Weight change	kg	99	19	Not applicable	Not applicable	Not applicable	247
Kendall 2005	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	241
Kendall 2005	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.5	1.1	Not applicable	Not applicable	Not applicable	241
Kendall 2005	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	98	21	Not applicable	Not applicable	Not applicable	241
Kesavadev 2017	Glimepiride; 1-3 mg daily; Oral	BMI change	kg/m2	25.15	3.69	Not applicable	Not applicable	Not applicable	221
Kesavadev 2017	Glimepiride; 1-3 mg daily; Oral	HbA1c change	%	7.83	0.45	Not applicable	Not applicable	Not applicable	205
Kesavadev 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.02	3.32	Not applicable	Not applicable	Not applicable	219

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kesavadev 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.78	0.56	Not applicable	Not applicable	Not applicable	213
Khaloo 2019	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	29	4.8	Not applicable	Not applicable	Not applicable	110
Khaloo 2019	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	9	1.2	Not applicable	Not applicable	Not applicable	110
Khaloo 2019	Pioglitazone; 30 mg daily; Oral	Weight change	kg	74.2	13.5	Not applicable	Not applicable	Not applicable	110
Khaloo 2019	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.7	4.3	Not applicable	Not applicable	Not applicable	112
Khaloo 2019	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.8	1.1	Not applicable	Not applicable	Not applicable	112
Khaloo 2019	Sitagliptin; 100 mg daily; Oral	Weight change	kg	78.3	12.5	Not applicable	Not applicable	Not applicable	112
Khan 2022	Empagliflozin ; 10-20 mg daily; Oral	HbA1c change	%	9.42	1.48	Not applicable	Not applicable	Not applicable	53
Khan 2022	Empagliflozin ; 10-20 mg daily; Oral	Weight change	kg	72	11	Not applicable	Not applicable	Not applicable	53

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Khan 2022	Vildagliptin; 50-100 mg daily; Oral	HbA1c change	%	9.17	1.36	Not applicable	Not applicable	Not applicable	54
Khan 2022	Vildagliptin; 50-100 mg daily; Oral	Weight change	kg	69	10	Not applicable	Not applicable	Not applicable	54
Kim 2018	Glimepiride + Metformin slow release; 4 mg + 1000 mg daily; Oral	BMI change	kg/m2	25.2	3.5	Not applicable	Not applicable	Not applicable	86
Kim 2018	Glimepiride + Metformin slow release; 4 mg + 1000 mg daily; Oral	HbA1c change	%	7.48	0.86	Not applicable	Not applicable	Not applicable	86
Kim 2018	Glimepiride + Metformin standard release; 4 mg + 1000 mg daily; Oral	BMI change	kg/m2	25.5	3.4	Not applicable	Not applicable	Not applicable	82
Kim 2018	Glimepiride + Metformin standard release; 4 mg	HbA1c change	%	7.39	0.77	Not applicable	Not applicable	Not applicable	82

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	+ 1000 mg daily; Oral								
Kim 2020	Glimepiride; 2 mg daily; Oral	BMI change	kg/m2	24.9	2.8	Not applicable	Not applicable	Not applicable	66
Kim 2020	Glimepiride; 2 mg daily; Oral	HbA1c change	%	8.16	0.61	Not applicable	Not applicable	Not applicable	66
Kim 2020	Glimepiride; 2 mg daily; Oral	Weight change	kg	65.8	10.3	Not applicable	Not applicable	Not applicable	66
Kim 2020	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	24.4	3.2	Not applicable	Not applicable	Not applicable	69
Kim 2020	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	8.25	0.58	Not applicable	Not applicable	Not applicable	69
Kim 2020	Pioglitazone; 15 mg daily; Oral	Weight change	kg	64	10	Not applicable	Not applicable	Not applicable	69
Kinoshita 2020	Dapagliflozin; 5 mg daily; Oral	BMI change	kg/m2	29.5	4.53	0.8	Not applicable	Not applicable	32
Kinoshita 2020	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	7.4	1.13	0.2	Not applicable	Not applicable	32

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kinoshita 2020	Dapagliflozin; 5 mg daily; Oral	Weight change	kg	77.1	16.4	2.9	Not applicable	Not applicable	32
Kinoshita 2020	Glimepiride; 0.5-1 mg daily; Oral	BMI change	kg/m2	28.4	4.02	0.7	Not applicable	Not applicable	33
Kinoshita 2020	Glimepiride; 0.5-1 mg daily; Oral	HbA1c change	%	7.6	1.15	0.2	Not applicable	Not applicable	33
Kinoshita 2020	Glimepiride; 0.5-1 mg daily; Oral	Weight change	kg	75.7	15.51	2.7	Not applicable	Not applicable	33
Kinoshita 2020	Pioglitazone; 7.5-15 mg daily; Oral	BMI change	kg/m2	28.7	5.17	0.9	Not applicable	Not applicable	33
Kinoshita 2020	Pioglitazone; 7.5-15 mg daily; Oral	HbA1c change	%	7.4	1.15	0.2	Not applicable	Not applicable	33
Kinoshita 2020	Pioglitazone; 7.5-15 mg daily; Oral	Weight change	kg	75	18.96	3.3	Not applicable	Not applicable	33
Komorizono 2020	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.7	4.9	Not applicable	Not applicable	Not applicable	24
Komorizono 2020	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7	0.5	Not applicable	Not applicable	Not applicable	24

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Komorizono 2020	Linagliptin; 5 mg daily; Oral	Weight change	kg	78.5	18	Not applicable	Not applicable	Not applicable	24
Komorizono 2020	Metformin type unspecified; 4500 mg daily; Oral	BMI change	kg/m2	27.9	4.1	Not applicable	Not applicable	Not applicable	25
Komorizono 2020	Metformin type unspecified; 4500 mg daily; Oral	HbA1c change	%	7.2	0.7	Not applicable	Not applicable	Not applicable	25
Komorizono 2020	Metformin type unspecified; 4500 mg daily; Oral	Weight change	kg	72.1	14.1	Not applicable	Not applicable	Not applicable	25
Kooy 2009	Metformin type unspecified; 850-2550 mg daily; Oral	BMI change	kg/m2	85	16	Not applicable	Not applicable	Not applicable	196
Kooy 2009	Metformin type unspecified; 850-2550 mg daily; Oral	HbA1c change	%	30	5	Not applicable	Not applicable	Not applicable	196

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kooy 2009	Metformin type unspecified; 850-2550 mg daily; Oral	Weight change	kg	7.9	1.2	Not applicable	Not applicable	Not applicable	196
Kooy 2009	Placebo; None; Oral	BMI change	kg/m2	87	15	Not applicable	Not applicable	Not applicable	194
Kooy 2009	Placebo; None; Oral	HbA1c change	%	30	5	Not applicable	Not applicable	Not applicable	194
Kooy 2009	Placebo; None; Oral	Weight change	kg	7.9	1.2	Not applicable	Not applicable	Not applicable	194
Kothny 2013	Placebo; None; Oral	BMI change	kg/m2	29	4.6	Not applicable	Not applicable	Not applicable	221
Kothny 2013	Placebo; None; Oral	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	221
Kothny 2013	Placebo; None; Oral	Weight change	kg	78.9	16.7	Not applicable	Not applicable	Not applicable	221
Kothny 2013	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	28.9	4.4	Not applicable	Not applicable	Not applicable	228
Kothny 2013	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	228
Kothny 2013	Vildagliptin; 100 mg daily; Oral	Weight change	kg	77.9	16.2	Not applicable	Not applicable	Not applicable	228

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kovacs 2014	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	29.2	5.6	Not applicable	Not applicable	Not applicable	165
Kovacs 2014	Empagliflozin ; 10 mg daily; Oral	HbA1c change	kg/m2	8.07	0.89	Not applicable	Not applicable	Not applicable	165
Kovacs 2014	Empagliflozin ; 10 mg daily; Oral	Weight change	%	78	19.2	Not applicable	Not applicable	Not applicable	165
Kovacs 2014	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	29.2	5.6	Not applicable	Not applicable	Not applicable	333
Kovacs 2014	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	kg/m2	8.07	0.86	Not applicable	Not applicable	Not applicable	333
Kovacs 2014	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	%	78.5	19.6	Not applicable	Not applicable	Not applicable	333
Kovacs 2014	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	29.1	5.5	Not applicable	Not applicable	Not applicable	168



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Kovacs 2014	Empagliflozin ; 25 mg daily; Oral	HbA1c change	kg/m2	8.06	0.82	Not applicable	Not applicable	Not applicable	168
Kovacs 2014	Empagliflozin ; 25 mg daily; Oral	Weight change	%	78.9	19.9	Not applicable	Not applicable	Not applicable	168
Kovacs 2014	Placebo; None; Oral	BMI change	kg/m2	29.3	5.4	Not applicable	Not applicable	Not applicable	165
Kovacs 2014	Placebo; None; Oral	HbA1c change	kg/m2	8.16	0.92	Not applicable	Not applicable	Not applicable	165
Kovacs 2014	Placebo; None; Oral	Weight change	%	78.1	20.1	Not applicable	Not applicable	Not applicable	165
Koyama 2014	Glimepiride; 0.5-2 mg daily; Oral	BMI change	kg/m2	24.4	18.1	3.3	Not applicable	Not applicable	30
Koyama 2014	Glimepiride; 0.5-2 mg daily; Oral	HbA1c change	%	8	0.77	0.14	Not applicable	Not applicable	30
Koyama 2014	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	25.8	5.7	1.1	Not applicable	Not applicable	27
Koyama 2014	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	7.9	0.73	0.14	Not applicable	Not applicable	27
Langenfeld 2005	Glimepiride; 1-6 mg daily; Oral	BMI change	kg/m2	31.8	4.3	Not applicable	Not applicable	Not applicable	84

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Langenfeld 2005	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	31.7	5	Not applicable	Not applicable	Not applicable	89
Lavalle-Gonzalez 2013A	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	32.4	6.4	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013A	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013A	Canagliflozin; 100 mg daily; Oral	Weight change	kg	88.8	22.2	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013A	Canagliflozin; 100-300 mg daily combined; Oral	BMI change	kg/m2	31.9	6.4	Not applicable	Not applicable	Not applicable	735
Lavalle-Gonzalez 2013A	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	735
Lavalle-Gonzalez 2013A	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	87.1	21.6	Not applicable	Not applicable	Not applicable	735

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lavalle-Gonzalez 2013A	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	31.4	6.3	Not applicable	Not applicable	Not applicable	367
Lavalle-Gonzalez 2013A	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	79.9	0.9	Not applicable	Not applicable	Not applicable	367
Lavalle-Gonzalez 2013A	Canagliflozin; 300 mg daily; Oral	Weight change	kg	85.4	20.9	Not applicable	Not applicable	Not applicable	367
Lavalle-Gonzalez 2013A	Placebo; None; Oral	BMI change	kg/m2	31.1	6.1	Not applicable	Not applicable	Not applicable	183
Lavalle-Gonzalez 2013A	Placebo; None; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	183
Lavalle-Gonzalez 2013A	Placebo; None; Oral	Weight change	kg	86.6	22.4	Not applicable	Not applicable	Not applicable	183
Lavalle-Gonzalez 2013A	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32	6.1	Not applicable	Not applicable	Not applicable	366
Lavalle-Gonzalez 2013A	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	366
Lavalle-Gonzalez 2013A	Sitagliptin; 100 mg daily; Oral	Weight change	kg	87.7	21.6	Not applicable	Not applicable	Not applicable	366

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lavalle-Gonzalez 2013B	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	32.4	6.4	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013B	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013B	Canagliflozin; 100 mg daily; Oral	Weight change	kg	88.8	22.2	Not applicable	Not applicable	Not applicable	368
Lavalle-Gonzalez 2013B	Canagliflozin; 100-300 mg daily combined; Oral	BMI change	kg/m2	31.9	6.4	Not applicable	Not applicable	Not applicable	735
Lavalle-Gonzalez 2013B	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	735
Lavalle-Gonzalez 2013B	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	87.1	21.6	Not applicable	Not applicable	Not applicable	735
Lavalle-Gonzalez 2013B	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	31.4	6.3	Not applicable	Not applicable	Not applicable	367

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lavalle-Gonzalez 2013B	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	79.9	0.9	Not applicable	Not applicable	Not applicable	367
Lavalle-Gonzalez 2013B	Canagliflozin; 300 mg daily; Oral	Weight change	kg	85.4	20.9	Not applicable	Not applicable	Not applicable	367
Lavalle-Gonzalez 2013B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32	6.1	Not applicable	Not applicable	Not applicable	366
Lavalle-Gonzalez 2013B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.9	0.9	Not applicable	Not applicable	Not applicable	366
Lavalle-Gonzalez 2013B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	87.7	21.6	Not applicable	Not applicable	Not applicable	366
Ledesma 2019	Linagliptin; 20 mg daily; Oral	BMI change	kg/m2	28.32	5.62	Not applicable	Not applicable	Not applicable	151
Ledesma 2019	Linagliptin; 20 mg daily; Oral	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	149
Ledesma 2019	Placebo; None; Oral	BMI change	kg/m2	27.86	5.74	Not applicable	Not applicable	Not applicable	151
Ledesma 2019	Placebo; None; Oral	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	147
Li 2014A	Liraglutide; 1.2 mg daily;	BMI change	kg/m2	26.7	1.01	Not applicable	Not applicable	Not applicable	61

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Li 2014A	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.48	0.79	Not applicable	Not applicable	Not applicable	61
Li 2014A	Liraglutide; 1.2 mg daily; Subcutaneous	Weight change	kg	76.5	7.6	Not applicable	Not applicable	Not applicable	61
Li 2014A	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	26.3	2.2	Not applicable	Not applicable	Not applicable	60
Li 2014A	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.59	0.87	Not applicable	Not applicable	Not applicable	60
Li 2014A	Saxagliptin; 5 mg daily; Oral	Weight change	kg	76.1	8.6	Not applicable	Not applicable	Not applicable	60
Li 2014A	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.9	1.8	Not applicable	Not applicable	Not applicable	57
Li 2014A	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.56	0.77	Not applicable	Not applicable	Not applicable	57
Li 2014A	Vildagliptin; 100 mg daily; Oral	Weight change	kg	75	8.6	Not applicable	Not applicable	Not applicable	57

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Li 2014B	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	26.9	3.1	Not applicable	Not applicable	Not applicable	66
Li 2014B	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.86	1.13	Not applicable	Not applicable	Not applicable	66
Li 2014B	Saxagliptin; 5 mg daily; Oral	Weight change	kg	77.2	15.1	Not applicable	Not applicable	Not applicable	66
Li 2014B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.6	3.3	Not applicable	Not applicable	Not applicable	61
Li 2014B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.54	1.19	Not applicable	Not applicable	Not applicable	61
Li 2014B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	73.2	10.9	Not applicable	Not applicable	Not applicable	61
Li 2014B	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.3	2.8	Not applicable	Not applicable	Not applicable	63
Li 2014B	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.75	1.15	Not applicable	Not applicable	Not applicable	63
Li 2014B	Vildagliptin; 100 mg daily; Oral	Weight change	kg	72.7	11.3	Not applicable	Not applicable	Not applicable	63

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Li 2017	Placebo; None; Oral	BMI change	kg/m2	26.1	3.4	Not applicable	Not applicable	Not applicable	16
Li 2017	Placebo; None; Oral	HbA1c change	%	8.8	0.7	Not applicable	Not applicable	Not applicable	16
Li 2017	Placebo; None; Oral	Weight change	kg	72.1	13.3	Not applicable	Not applicable	Not applicable	16
Li 2017	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.1	3.1	Not applicable	Not applicable	Not applicable	17
Li 2017	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	0.8	Not applicable	Not applicable	Not applicable	17
Li 2017	Vildagliptin; 100 mg daily; Oral	Weight change	kg	68.6	11.2	Not applicable	Not applicable	Not applicable	17
Lind 2015	Liraglutide; 0.6 mg-1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.7	4.3	Not applicable	Not applicable	Not applicable	64
Lind 2015	Liraglutide; 0.6 mg-1.8 mg daily; Subcutaneous	HbA1c change	%	9	1	Not applicable	Not applicable	Not applicable	64
Lind 2015	Liraglutide; 0.6 mg-1.8 mg daily; Subcutaneous	Weight change	kg	98.9	14	Not applicable	Not applicable	Not applicable	64



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Lind 2015	Placebo; None; Subcutaneous	BMI change	kg/m2	33.5	4	Not applicable	Not applicable	Not applicable	60
Lind 2015	Placebo; None; Subcutaneous	HbA1c change	%	9	1.1	Not applicable	Not applicable	Not applicable	60
Lind 2015	Placebo; None; Subcutaneous	Weight change	kg	100	14.8	Not applicable	Not applicable	Not applicable	60
Lingvay 2016	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	BMI change	kg/m2	31.7	4.4	Not applicable	Not applicable	Not applicable	278
Lingvay 2016	IDegLira; 50 units + 1.8 mg daily; Subcutaneous	Weight change	kg	88.3	17.5	Not applicable	Not applicable	Not applicable	278
Lingvay 2016	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	31.7	4.5	Not applicable	Not applicable	Not applicable	279

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lingvay 2016	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	87.3	15.8	Not applicable	Not applicable	Not applicable	279
Lingvay 2019	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	32.5	6.9	Not applicable	Not applicable	Not applicable	394
Lingvay 2019	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.2	6.8	Not applicable	Not applicable	Not applicable	394
Liu 2013	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	25.7	3.7	Not applicable	Not applicable	Not applicable	60
Liu 2013	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.54	0.97	Not applicable	Not applicable	Not applicable	60
Liu 2013	Pioglitazone; 30 mg daily; Oral	Weight change	kg	65.4	10.4	Not applicable	Not applicable	Not applicable	60
Liu 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.6	4.6	Not applicable	Not applicable	Not applicable	60
Liu 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.27	0.86	Not applicable	Not applicable	Not applicable	60

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Liu 2013	Sitagliptin; 100 mg daily; Oral	Weight change	kg	69.4	13.6	Not applicable	Not applicable	Not applicable	60
Liu 2021	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	9.4	1.5	Not applicable	Not applicable	Not applicable	53
Liu 2021	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	71.5	12.5	Not applicable	Not applicable	Not applicable	53
Liu 2021	Linagliptin; 5 mg daily; Oral	HbA1c change	%	9	1.2	Not applicable	Not applicable	Not applicable	53
Liu 2021	Linagliptin; 5 mg daily; Oral	Weight change	kg	70.6	10.5	Not applicable	Not applicable	Not applicable	53
Liutkus 2010	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	34	6	Not applicable	Not applicable	Not applicable	111
Liutkus 2010	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	111
Liutkus 2010	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	94.5	17.8	Not applicable	Not applicable	Not applicable	111

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Liutkus 2010	Placebo; None; Subcutaneous	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	54
Liutkus 2010	Placebo; None; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	54
Liutkus 2010	Placebo; None; Subcutaneous	Weight change	kg	92.6	18	Not applicable	Not applicable	Not applicable	54
Ludvik 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	32.77	6.27	Not applicable	Not applicable	Not applicable	141
Ludvik 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.04	0.61	Not applicable	Not applicable	Not applicable	141
Ludvik 2018	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	91.07	20.99	Not applicable	Not applicable	Not applicable	141
Ludvik 2018	Dulaglutide; 0.75-1.5 mg	BMI change	kg/m2	32.82	5.91	Not applicable	Not applicable	Not applicable	283

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Ludvik 2018	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.04	0.63	Not applicable	Not applicable	Not applicable	283
Ludvik 2018	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	91.97	20.35	Not applicable	Not applicable	Not applicable	283
Ludvik 2018	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.87	5.56	Not applicable	Not applicable	Not applicable	142
Ludvik 2018	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.04	0.65	Not applicable	Not applicable	Not applicable	142
Ludvik 2018	Dulaglutide; 1.5 mg weekly;	Weight change	kg	92.87	19.73	Not applicable	Not applicable	Not applicable	142

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Ludvik 2018	Placebo; None; Subcutaneous	BMI change	kg/m2	32.39	4.98	Not applicable	Not applicable	Not applicable	140
Ludvik 2018	Placebo; None; Subcutaneous	HbA1c change	%	8.05	0.66	Not applicable	Not applicable	Not applicable	140
Ludvik 2018	Placebo; None; Subcutaneous	Weight change	kg	90.5	19.47	Not applicable	Not applicable	Not applicable	140
Ludvik 2021	Insulin degludec; 10 units daily; Subcutaneous	BMI change	kg/m2	33.4	6.1	Not applicable	Not applicable	Not applicable	360
Ludvik 2021	Insulin degludec; 10 units daily; Subcutaneous	HbA1c change	%	8.12	0.94	Not applicable	Not applicable	Not applicable	360
Ludvik 2021	Insulin degludec; 10 units daily; Subcutaneous	Weight change	kg	94	20.1	Not applicable	Not applicable	Not applicable	360

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ludvik 2021	Tirzepatide; 10 mg daily; Subcutaneous	BMI change	kg/m2	33.4	6.2	Not applicable	Not applicable	Not applicable	360
Ludvik 2021	Tirzepatide; 10 mg daily; Subcutaneous	HbA1c change	%	8.18	0.89	Not applicable	Not applicable	Not applicable	360
Ludvik 2021	Tirzepatide; 10 mg daily; Subcutaneous	Weight change	kg	93.8	19.8	Not applicable	Not applicable	Not applicable	360
Ludvik 2021	Tirzepatide; 15 mg daily; Subcutaneous	BMI change	kg/m2	33.7	6.1	Not applicable	Not applicable	Not applicable	359
Ludvik 2021	Tirzepatide; 15 mg daily; Subcutaneous	HbA1c change	%	8.21	0.94	Not applicable	Not applicable	Not applicable	359
Ludvik 2021	Tirzepatide; 15 mg daily; Subcutaneous	Weight change	kg	94.9	21	Not applicable	Not applicable	Not applicable	359
Ludvik 2021	Tirzepatide; 5 mg daily; Subcutaneous	BMI change	kg/m2	33.6	5.9	Not applicable	Not applicable	Not applicable	358

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ludvik 2021	Tirzepatide; 5 mg daily; Subcutaneous	HbA1c change	%	8.17	0.89	Not applicable	Not applicable	Not applicable	358
Ludvik 2021	Tirzepatide; 5 mg daily; Subcutaneous	Weight change	kg	94.4	18.9	Not applicable	Not applicable	Not applicable	358
Ludvik 2021	Tirzepatide; 5-15 mg daily combined; Subcutaneous	BMI change	kg/m2	33.57	6.07	Not applicable	Not applicable	Not applicable	1077
Ludvik 2021	Tirzepatide; 5-15 mg daily combined; Subcutaneous	HbA1c change	%	8.19	0.91	Not applicable	Not applicable	Not applicable	1077
Ludvik 2021	Tirzepatide; 5-15 mg daily combined; Subcutaneous	Weight change	kg	94.37	19.92	Not applicable	Not applicable	Not applicable	1077
Lukashevich 2011 moderate renal impairment	Placebo; None; Oral	BMI change	kg/m2	30	5	Not applicable	Not applicable	Not applicable	129



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Lukashevich 2011 moderate renal impairment	Placebo; None; Oral	HbA1c change	%	7.8	0.9	Not applicable	Not applicable	Not applicable	129
Lukashevich 2011 moderate renal impairment	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	30.2	5.1	Not applicable	Not applicable	Not applicable	165
Lukashevich 2011 moderate renal impairment	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	7.8	1	Not applicable	Not applicable	Not applicable	165
Lukashevich 2014	Placebo; None; Oral	BMI change	kg/m2	28	4.5	Not applicable	Not applicable	Not applicable	160
Lukashevich 2014	Placebo; None; Oral	HbA1c change	%	8.8	0.9	Not applicable	Not applicable	Not applicable	160
Lukashevich 2014	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	27.9	4.6	Not applicable	Not applicable	Not applicable	158
Lukashevich 2014	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	158
Lundby-Christensen 2016	Metformin type unspecified;	BMI change	kg/m2	32.3	4.2	Not applicable	Not applicable	Not applicable	206

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	2000 mg daily; Oral								
Lundby-Christensen 2016	Metformin type unspecified; 2000 mg daily; Oral	HbA1c change	%	8.6	1.1	Not applicable	Not applicable	Not applicable	206
Lundby-Christensen 2016	Metformin type unspecified; 2000 mg daily; Oral	Weight change	kg	97.2	15.2	Not applicable	Not applicable	Not applicable	206
Lundby-Christensen 2016	Placebo; None; Oral	BMI change	kg/m2	32.1	4.2	Not applicable	Not applicable	Not applicable	206
Lundby-Christensen 2016	Placebo; None; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	206
Lundby-Christensen 2016	Placebo; None; Oral	Weight change	kg	97.1	14.7	Not applicable	Not applicable	Not applicable	206
Macauley 2015	Placebo; None; Oral	BMI change	kg/m2	31.1	0.6	Not applicable	Not applicable	Not applicable	22
Macauley 2015	Placebo; None; Oral	HbA1c change	%	6.5	0.1	Not applicable	Not applicable	Not applicable	22
Macauley 2015	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.4	0.8	Not applicable	Not applicable	Not applicable	22

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Macauley 2015	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	6.6	0.1	Not applicable	Not applicable	Not applicable	22
Mahaffey 2018	Canagliflozin; 100-300 mg daily; Oral	BMI change	kg/m2	31.9	6	Not applicable	Not applicable	Not applicable	5795
Mahaffey 2018	Placebo; None; Oral	BMI change	kg/m2	32	6	Not applicable	Not applicable	Not applicable	4347
Marre 2009	Liraglutide; 0.6 mg daily; Subcutaneous	BMI change	kg/m2	30	5	Not applicable	Not applicable	Not applicable	233
Marre 2009	Liraglutide; 0.6 mg daily; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	233
Marre 2009	Liraglutide; 0.6 mg daily; Subcutaneous	Weight change	kg	82.6	17.7	Not applicable	Not applicable	Not applicable	233
Marre 2009	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	BMI change	kg/m2	30.3	5.4	Not applicable	Not applicable	Not applicable	114
Marre 2009	Liraglutide; 0.6-1.8 mg daily;	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	114

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Marre 2009	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	Weight change	kg	81.9	17.1	Not applicable	Not applicable	Not applicable	114
Marre 2009	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	29.8	5.1	Not applicable	Not applicable	Not applicable	228
Marre 2009	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.5	1.1	Not applicable	Not applicable	Not applicable	228
Marre 2009	Liraglutide; 1.2 mg daily; Subcutaneous	Weight change	kg	80	17.1	Not applicable	Not applicable	Not applicable	228
Marre 2009	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30	5.1	Not applicable	Not applicable	Not applicable	234
Marre 2009	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	234
Marre 2009	Liraglutide; 1.8 mg daily;	Weight change	kg	83	18.1	Not applicable	Not applicable	Not applicable	234

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Marre 2009	Placebo; None; Oral	BMI change	kg/m2	29.9	5	Not applicable	Not applicable	Not applicable	695
Marre 2009	Placebo; None; Oral	HbA1c change	%	8.5	0.95	Not applicable	Not applicable	Not applicable	695
Marre 2009	Placebo; None; Oral	Weight change	kg	81.9	17.6	Not applicable	Not applicable	Not applicable	695
Marso 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	32.5	6.3	Not applicable	Not applicable	Not applicable	4668
Marso 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.7	1.6	Not applicable	Not applicable	Not applicable	4668
Marso 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	91.9	21.2	Not applicable	Not applicable	Not applicable	4668
Marso 2016A	Placebo; None; Subcutaneous	BMI change	kg/m2	32.5	6.3	Not applicable	Not applicable	Not applicable	4672
Marso 2016A	Placebo; None; Subcutaneous	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	4672

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Marso 2016A	Placebo; None; Subcutaneous	Weight change	kg	91.6	20.8	Not applicable	Not applicable	Not applicable	4672
Marso 2016B	Placebo; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.9	6.35	Not applicable	Not applicable	Not applicable	824
Marso 2016B	Placebo; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	824
Marso 2016B	Placebo; 0.5 mg weekly; Subcutaneous	Weight change	kg	91.8	20.3	Not applicable	Not applicable	Not applicable	824
Marso 2016B	Placebo; 0.5-1.0 mg weekly; Subcutaneous	BMI change	kg/m2	32.8	6.16	Not applicable	Not applicable	Not applicable	1649
Marso 2016B	Placebo; 0.5-1.0 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	1649
Marso 2016B	Placebo; 0.5-1.0 mg weekly;	Weight change	kg	91.85	20.55	Not applicable	Not applicable	Not applicable	1649

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Marso 2016B	Placebo; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.7	5.97	Not applicable	Not applicable	Not applicable	825
Marso 2016B	Placebo; 1 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	825
Marso 2016B	Placebo; 1 mg weekly; Subcutaneous	Weight change	kg	91.9	20.8	Not applicable	Not applicable	Not applicable	825
Marso 2016B	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.7	6.29	Not applicable	Not applicable	Not applicable	826
Marso 2016B	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.4	Not applicable	Not applicable	Not applicable	826
Marso 2016B	Semaglutide; 0.5 mg weekly; Subcutaneous	Weight change	kg	91.8	20.3	Not applicable	Not applicable	Not applicable	826

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Marso 2016B	Semaglutide; 0.5-1.0 mg weekly; Subcutaneous	BMI change	kg/m2	32.8	6.24	Not applicable	Not applicable	Not applicable	1648
Marso 2016B	Semaglutide; 0.5-1.0 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.45	Not applicable	Not applicable	Not applicable	1648
Marso 2016B	Semaglutide; 0.5-1.0 mg weekly; Subcutaneous	Weight change	kg	92.35	20.71	Not applicable	Not applicable	Not applicable	1648
Marso 2016B	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.9	6.18	Not applicable	Not applicable	Not applicable	822
Marso 2016B	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	822
Marso 2016B	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	92.9	21.1	Not applicable	Not applicable	Not applicable	822
Mathieu 2014	IDegLira; 1.8 mg daily;	BMI change	kg/m2	32.5	5.4	Not applicable	Not applicable	Not applicable	88



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Mathieu 2014	IDegLira; 1.8 mg daily; Subcutaneous	HbA1c change	%	7.7	0.6	Not applicable	Not applicable	Not applicable	88
Mathieu 2014	IDegLira; 1.8 mg daily; Subcutaneous	Weight change	kg	95.4	19.2	Not applicable	Not applicable	Not applicable	88
Mathieu 2014	Insulin degludec/Insulin aspart; Titrated; Subcutaneous	BMI change	kg/m2	32	4.8	Not applicable	Not applicable	Not applicable	89
Mathieu 2014	Insulin degludec/Insulin aspart; Titrated; Subcutaneous	HbA1c change	%	7.7	0.8	Not applicable	Not applicable	Not applicable	89
Mathieu 2014	Insulin degludec/Insulin aspart; Titrated; Subcutaneous	Weight change	kg	91.3	16.8	Not applicable	Not applicable	Not applicable	89

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Mathieu 2015A	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	31.2	4.7	Not applicable	Not applicable	Not applicable	160
Mathieu 2015A	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.24	0.96	Not applicable	Not applicable	Not applicable	160
Mathieu 2015A	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	85.8	18.4	Not applicable	Not applicable	Not applicable	160
Mathieu 2015A	Placebo; None; Oral	BMI change	kg/m2	32.2	5.3	Not applicable	Not applicable	Not applicable	160
Mathieu 2015A	Placebo; None; Oral	HbA1c change	%	8.17	0.98	Not applicable	Not applicable	Not applicable	160
Mathieu 2015A	Placebo; None; Oral	Weight change	kg	88.2	18.1	Not applicable	Not applicable	Not applicable	160
Mathieu 2015B	Placebo; None; Oral	BMI change	kg/m2	32.2	6.6	Not applicable	Not applicable	Not applicable	329
Mathieu 2015B	Placebo; None; Oral	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	329
Mathieu 2015B	Placebo; None; Oral	Weight change	kg	88.3	22.6	Not applicable	Not applicable	Not applicable	329
Mathieu 2015B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.9	5.8	Not applicable	Not applicable	Not applicable	329
Mathieu 2015B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.7	1	Not applicable	Not applicable	Not applicable	329

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Mathieu 2015B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	87.1	19.5	Not applicable	Not applicable	Not applicable	329
Matthaei 2015A	Placebo; None; Oral	BMI change	kg/m2	31.4	5.3	Not applicable	Not applicable	Not applicable	162
Matthaei 2015A	Placebo; None; Oral	HbA1c change	%	7.86	0.93	Not applicable	Not applicable	Not applicable	162
Matthaei 2015A	Placebo; None; Oral	Weight change	kg	87.9	17.1	Not applicable	Not applicable	Not applicable	162
Matthaei 2015A	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	31.4	5.2	Not applicable	Not applicable	Not applicable	153
Matthaei 2015A	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	7.97	0.83	Not applicable	Not applicable	Not applicable	153
Matthaei 2015A	Saxagliptin; 5 mg daily; Oral	Weight change	kg	88.1	20	Not applicable	Not applicable	Not applicable	153
Matthews 2005	Gliclazide; 80-320 mg daily; Oral	BMI change	kg/m2	32.6	5.8	Not applicable	Not applicable	Not applicable	313
Matthews 2005	Gliclazide; 80-320 mg daily; Oral	HbA1c change	%	8.53	0.89	Not applicable	Not applicable	Not applicable	313
Matthews 2005	Gliclazide; 80-320 mg daily; Oral	Weight change	kg	92.7	17.4	Not applicable	Not applicable	Not applicable	313

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Matthews 2005	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	32.6	5	Not applicable	Not applicable	Not applicable	317
Matthews 2005	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	8.71	1	Not applicable	Not applicable	Not applicable	317
Matthews 2005	Pioglitazone; 15-45 mg daily; Oral	Weight change	kg	91.8	16.2	Not applicable	Not applicable	Not applicable	317
Matthews 2010	Glimepiride; 2-6 mg daily; Oral	BMI change	kg/m2	31.7	5.3	Not applicable	Not applicable	Not applicable	1556
Matthews 2010	Glimepiride; 2-6 mg daily; Oral	HbA1c change	%	7.3	0.7	Not applicable	Not applicable	Not applicable	1556
Matthews 2010	Glimepiride; 2-6 mg daily; Oral	Weight change	kg	88.9	17.8	Not applicable	Not applicable	Not applicable	1556
Matthews 2010	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.9	5.3	Not applicable	Not applicable	Not applicable	1562
Matthews 2010	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.3	0.7	Not applicable	Not applicable	Not applicable	1562
Matthews 2010	Vildagliptin; 100 mg daily; Oral	Weight change	kg	89.5	18.1	Not applicable	Not applicable	Not applicable	1562

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Mattoo 2005	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	32.5	4.8	Not applicable	Not applicable	Not applicable	142
Mattoo 2005	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	8.85	0.11	Not applicable	Not applicable	Not applicable	142
Mattoo 2005	Placebo; None; Oral	BMI change	kg/m2	31.8	5	Not applicable	Not applicable	Not applicable	147
Mattoo 2005	Placebo; None; Oral	HbA1c change	%	8.79	0.1	Not applicable	Not applicable	Not applicable	147
Mazzone 2006	Glimepiride; 1-4 mg daily; Oral	BMI change	kg/m2	31.9	5	Not applicable	Not applicable	Not applicable	228
Mazzone 2006	Glimepiride; 1-4 mg daily; Oral	HbA1c change	%	7.4	0.97	Not applicable	Not applicable	Not applicable	228
Mazzone 2006	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	32	5.2	Not applicable	Not applicable	Not applicable	230
Mazzone 2006	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	7.43	0.99	Not applicable	Not applicable	Not applicable	230
McCluskey 2004	Glimepiride; 2-8 mg daily; Oral	HbA1c change	%	7.9	0.6	Not applicable	Not applicable	Not applicable	25
McCluskey 2004	Glimepiride; 2-8 mg daily; Oral	Weight change	kg	100.5	20	4	Not applicable	Not applicable	25

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
McCluskey 2004	Placebo; None; Oral	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	15
McCluskey 2004	Placebo; None; Oral	Weight change	kg	99.4	19.8	5.1	Not applicable	Not applicable	15
Meneghini 2010	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	9.4	1.2	Not applicable	Not applicable	Not applicable	121
Meneghini 2010	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	9.5	1.4	Not applicable	Not applicable	Not applicable	126
Meneilly 2017	Lixisenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	29.9	3.7	Not applicable	Not applicable	Not applicable	176
Meneilly 2017	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	176
Meneilly 2017	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	80.8	14.5	Not applicable	Not applicable	Not applicable	176
Meneilly 2017	Placebo; None; Subcutaneous	BMI change	kg/m2	30.1	4.5	Not applicable	Not applicable	Not applicable	174

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Meneilly 2017	Placebo; None; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	174
Meneilly 2017	Placebo; None; Subcutaneous	Weight change	kg	80.1	16.8	Not applicable	Not applicable	Not applicable	174
Miras 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	36.1	7.8	Not applicable	Not applicable	Not applicable	53
Miras 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	7.9	1.39	Not applicable	Not applicable	Not applicable	53
Miras 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	100.7	20.7	Not applicable	Not applicable	Not applicable	53
Miras 2019	Placebo; None; Subcutaneous	BMI change	kg/m2	37	7.7	Not applicable	Not applicable	Not applicable	27
Miras 2019	Placebo; None; Subcutaneous	HbA1c change	%	7.4	0.75	Not applicable	Not applicable	Not applicable	27

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Miras 2019	Placebo; None; Subcutaneous	Weight change	kg	103.5	27	Not applicable	Not applicable	Not applicable	27
Moon 2014	Glimepiride; 1-8 mg daily; Oral	BMI change	kg/m2	25.5	3.6	Not applicable	Not applicable	Not applicable	34
Moon 2014	Glimepiride; 1-8 mg daily; Oral	HbA1c change	%	8.9	1.3	Not applicable	Not applicable	Not applicable	34
Moon 2014	Glimepiride; 1-8 mg daily; Oral	Weight change	kg	66	11.1	Not applicable	Not applicable	Not applicable	34
Moon 2014	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	24.4	2.7	Not applicable	Not applicable	Not applicable	38
Moon 2014	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.8	1.2	Not applicable	Not applicable	Not applicable	38
Moon 2014	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	62.7	9.1	Not applicable	Not applicable	Not applicable	38



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Morikawa 2011	Metformin type unspecified; 750 mg daily; Oral	BMI change	kg/m2	25.6	3.34	0.6	Not applicable	Not applicable	31
Morikawa 2011	Metformin type unspecified; 750 mg daily; Oral	HbA1c change	%	8	1.11	0.2	Not applicable	Not applicable	31
Morikawa 2011	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	24.5	3.39	0.6	Not applicable	Not applicable	32
Morikawa 2011	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.9	1.13	0.2	Not applicable	Not applicable	32
Moses 2014	Placebo; None; Oral	BMI change	kg/m2	29.1	4.9	Not applicable	Not applicable	Not applicable	128
Moses 2014	Placebo; None; Oral	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	128
Moses 2014	Placebo; None; Oral	Weight change	kg	80.3	18.5	Not applicable	Not applicable	Not applicable	128
Moses 2014	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.4	5.3	Not applicable	Not applicable	Not applicable	129
Moses 2014	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	129

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Moses 2014	Saxagliptin; 5 mg daily; Oral	Weight change	kg	82.4	19.9	Not applicable	Not applicable	Not applicable	129
Moses 2017	Placebo; None; Oral	BMI change	kg/m2	28.8	5	Not applicable	Not applicable	Not applicable	212
Moses 2017	Placebo; None; Oral	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	212
Moses 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.5	4.8	Not applicable	Not applicable	Not applicable	210
Moses 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	210
Muller-Wieland 2018	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	BMI change	kg/m2	32.5	5.1	Not applicable	Not applicable	Not applicable	312
Muller-Wieland 2018	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	HbA1c change	%	8.3	0.7	Not applicable	Not applicable	Not applicable	312
Muller-Wieland 2018	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	Weight change	kg	95.3	17.4	Not applicable	Not applicable	Not applicable	312

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Muller-Wieland 2018	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	33.1	5.2	Not applicable	Not applicable	Not applicable	314
Muller-Wieland 2018	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.3	0.7	Not applicable	Not applicable	Not applicable	314
Muller-Wieland 2018	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	97.7	18.9	Not applicable	Not applicable	Not applicable	314
Muller-Wieland 2018	Glimepiride; 1-6 mg daily; Oral	BMI change	kg/m2	33	5.1	Not applicable	Not applicable	Not applicable	313
Muller-Wieland 2018	Glimepiride; 1-6 mg daily; Oral	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	313
Muller-Wieland 2018	Glimepiride; 1-6 mg daily; Oral	Weight change	kg	97.3	17.9	Not applicable	Not applicable	Not applicable	313
Nahra 2021	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	35.4	6.1	Not applicable	Not applicable	Not applicable	110
Nahra 2021	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	110
Nahra 2021	Liraglutide; 1.8 mg daily;	Weight change	kg	102.1	22.7	Not applicable	Not applicable	Not applicable	110

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nahra 2021	Placebo; None; Subcutaneous	BMI change	kg/m2	34.2	5.1	Not applicable	Not applicable	Not applicable	112
Nahra 2021	Placebo; None; Subcutaneous	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	112
Nahra 2021	Placebo; None; Subcutaneous	Weight change	kg	98.1	19.8	Not applicable	Not applicable	Not applicable	112
Nakaguchi 2020	Empagliflozin ; 10-25 mg daily; Oral	BMI change	kg/m2	25.8	4.3	Not applicable	Not applicable	Not applicable	31
Nakaguchi 2020	Empagliflozin ; 10-25 mg daily; Oral	HbA1c change	%	8.08	0.76	Not applicable	Not applicable	Not applicable	31
Nakaguchi 2020	Empagliflozin ; 10-25 mg daily; Oral	Weight change	kg	69	16	Not applicable	Not applicable	Not applicable	31
Nakaguchi 2020	Liraglutide; 0.9 mg daily; Subcutaneous	BMI change	kg/m2	26.4	4.6	Not applicable	Not applicable	Not applicable	30
Nakaguchi 2020	Liraglutide; 0.9 mg daily;	HbA1c change	%	8.04	0.75	Not applicable	Not applicable	Not applicable	30

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nakaguchi 2020	Liraglutide; 0.9 mg daily; Subcutaneous	Weight change	kg	70.1	14.4	Not applicable	Not applicable	Not applicable	30
Nauck 2007A	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	30.6	4	Not applicable	Not applicable	Not applicable	253
Nauck 2007A	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	253
Nauck 2007A	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	85.5	15.7	Not applicable	Not applicable	Not applicable	253
Nauck 2007A	Insulin aspart; Titrated; Subcutaneous	BMI change	kg/m2	30.2	4.2	Not applicable	Not applicable	Not applicable	248
Nauck 2007A	Insulin aspart; Titrated;	HbA1c change	%	8.6	1.1	Not applicable	Not applicable	Not applicable	248

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nauck 2007A	Insulin aspart; Titrated; Subcutaneous	Weight change	kg	83.4	15.6	Not applicable	Not applicable	Not applicable	248
Nauck 2007B	Glipizide; 5-20 mg daily; Oral	BMI change	kg/m2	31.3	5.2	Not applicable	Not applicable	Not applicable	584
Nauck 2007B	Glipizide; 5-20 mg daily; Oral	HbA1c change	%	7.6	0.9	Not applicable	Not applicable	Not applicable	584
Nauck 2007B	Glipizide; 5-20 mg daily; Oral	Weight change	kg	89.7	17.5	Not applicable	Not applicable	Not applicable	584
Nauck 2007B	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.2	5	Not applicable	Not applicable	Not applicable	588
Nauck 2007B	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	588
Nauck 2007B	Sitagliptin; 100 mg daily; Oral	Weight change	kg	89.5	17.4	Not applicable	Not applicable	Not applicable	588
Nauck 2009A	Alogliptin; 12.5 mg daily; Oral	BMI change	kg/m2	35	5	Not applicable	Not applicable	Not applicable	213

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2009A	Alogliptin; 12.5 mg daily; Oral	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	213
Nauck 2009A	Alogliptin; 12.5-25 mg daily combined; Oral	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	423
Nauck 2009A	Alogliptin; 12.5-25 mg daily combined; Oral	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	423
Nauck 2009A	Alogliptin; 25 mg daily; Oral	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	210
Nauck 2009A	Alogliptin; 25 mg daily; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	210
Nauck 2009A	Placebo; None; Oral	BMI change	kg/m2	32	6	Not applicable	Not applicable	Not applicable	104
Nauck 2009A	Placebo; None; Oral	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	104
Nauck 2009B	Glimepiride; 4 mg daily; Oral	BMI change	kg/m2	31.2	4.6	Not applicable	Not applicable	Not applicable	244

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2009B	Glimepiride; 4 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	244
Nauck 2009B	Liraglutide; 0.6 mg daily; Subcutaneous	BMI change	kg/m2	30.5	4.8	Not applicable	Not applicable	Not applicable	242
Nauck 2009B	Liraglutide; 0.6 mg daily; Subcutaneous	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	242
Nauck 2009B	Liraglutide; 0.6-1.8 mg daily combined; Subcutaneous	BMI change	kg/m2	30.8	4.8	Not applicable	Not applicable	Not applicable	725
Nauck 2009B	Liraglutide; 0.6-1.8 mg daily combined; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	725
Nauck 2009B	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	31.1	4.8	Not applicable	Not applicable	Not applicable	241
Nauck 2009B	Liraglutide; 1.2 mg daily;	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	241



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nauck 2009B	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30.9	4.6	Not applicable	Not applicable	Not applicable	242
Nauck 2009B	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	242
Nauck 2009B	Placebo; None; Oral + Subcutaneous	BMI change	kg/m2	31.6	4.4	Not applicable	Not applicable	Not applicable	122
Nauck 2009B	Placebo; None; Oral + Subcutaneous	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	122
Nauck 2011	Dapagliflozin; 2.5-10 mg daily; Oral	BMI change	kg/m2	31.7	5.1	Not applicable	Not applicable	Not applicable	400
Nauck 2011	Dapagliflozin; 2.5-10 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	400
Nauck 2011	Dapagliflozin; 2.5-10 mg daily; Oral	Weight change	kg	88.4	16.3	Not applicable	Not applicable	Not applicable	400

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2011	Glipizide; 5-20 mg daily; Oral	BMI change	kg/m2	31.2	5.1	Not applicable	Not applicable	Not applicable	401
Nauck 2011	Glipizide; 5-20 mg daily; Oral	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	401
Nauck 2011	Glipizide; 5-20 mg daily; Oral	Weight change	kg	87.6	17	Not applicable	Not applicable	Not applicable	401
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	302
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	302
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	86	18	Not applicable	Not applicable	Not applicable	302
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75-1.5 mg weekly combined;	BMI change	kg/m2	31	4.53	Not applicable	Not applicable	Not applicable	606

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	606
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	86.5	17.5	Not applicable	Not applicable	Not applicable	606
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	304
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	304
Nauck 2014 Dulaglutide v Placebo	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	87	17	Not applicable	Not applicable	Not applicable	304

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2014 Dulaglutide v Placebo	Placebo; None; Subcutaneous	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Dulaglutide v Placebo	Placebo; None; Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Dulaglutide v Placebo	Placebo; None; Subcutaneous	Weight change	kg	87	17	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	302
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	302
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	86	18	Not applicable	Not applicable	Not applicable	302

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	31	4.53	Not applicable	Not applicable	Not applicable	606
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	606
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	86.5	17.5	Not applicable	Not applicable	Not applicable	606
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	304
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	304

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2014 Dulaglutide v Sitagliptin	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	87	17	Not applicable	Not applicable	Not applicable	304
Nauck 2014 Dulaglutide v Sitagliptin	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	315
Nauck 2014 Dulaglutide v Sitagliptin	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	315
Nauck 2014 Dulaglutide v Sitagliptin	Sitagliptin; 100 mg daily; Oral	Weight change	kg	86	17	Not applicable	Not applicable	Not applicable	315
Nauck 2014 Sitagliptin v Placebo	Placebo; None; Oral	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Sitagliptin v Placebo	Placebo; None; Oral	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Sitagliptin v Placebo	Placebo; None; Oral	Weight change	kg	87	17	Not applicable	Not applicable	Not applicable	177
Nauck 2014 Sitagliptin v Placebo	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	315

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Nauck 2014 Sitagliptin v Placebo	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	315
Nauck 2014 Sitagliptin v Placebo	Sitagliptin; 100 mg daily; Oral	Weight change	kg	86	17	Not applicable	Not applicable	Not applicable	315
Nauck 2016B	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	34.5	6.8	Not applicable	Not applicable	Not applicable	202
Nauck 2016B	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	202
Nauck 2016B	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	101.9	23.3	Not applicable	Not applicable	Not applicable	202
Nauck 2016B	Lixisenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	34.9	6.6	Not applicable	Not applicable	Not applicable	202
Nauck 2016B	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	202
Nauck 2016B	Lixisenatide; 20 mcg daily;	Weight change	kg	100.6	19.9	Not applicable	Not applicable	Not applicable	202

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Nesti 2022	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	27.8	4.7	Not applicable	Not applicable	Not applicable	22
Nesti 2022	Empagliflozin ; 10 mg daily; Oral	HbA1c change	mmol/mol	57.8	6.5	Not applicable	Not applicable	Not applicable	22
Nesti 2022	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	83	13.6	Not applicable	Not applicable	Not applicable	22
Nesti 2022	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.6	5.7	Not applicable	Not applicable	Not applicable	22
Nesti 2022	Sitagliptin; 100 mg daily; Oral	HbA1c change	mmol/mol	60.3	6.2	Not applicable	Not applicable	Not applicable	22
Nesti 2022	Sitagliptin; 100 mg daily; Oral	Weight change	kg	83.7	12.4	Not applicable	Not applicable	Not applicable	22
Ning 2016	Placebo; None; Oral	BMI change	kg/m2	26	3	Not applicable	Not applicable	Not applicable	147
Ning 2016	Placebo; None; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	147
Ning 2016	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.2	3.2	Not applicable	Not applicable	Not applicable	146



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ning 2016	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.6	0.9	Not applicable	Not applicable	Not applicable	146
Nogueira 2014	NPH Insulin; Titrated; Subcutaneous	BMI change	kg/m2	27.5	2.5	Not applicable	Not applicable	Not applicable	17
Nogueira 2014	NPH Insulin; Titrated; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	17
Nogueira 2014	NPH Insulin; Titrated; Subcutaneous	Weight change	kg	73.1	10.1	Not applicable	Not applicable	Not applicable	17
Nogueira 2014	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	26.5	2.7	Not applicable	Not applicable	Not applicable	18
Nogueira 2014	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8	0.6	Not applicable	Not applicable	Not applicable	18
Nogueira 2014	Sitagliptin; 100 mg daily; Oral	Weight change	kg	69.4	12	Not applicable	Not applicable	Not applicable	18
Ohira 2014A	Glimepiride; 1 mg daily; Oral	BMI change	kg/m2	24.49	4.54	Not applicable	Not applicable	Not applicable	30

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ohira 2014A	Glimepiride; 1 mg daily; Oral	HbA1c change	%	8.64	1.34	Not applicable	Not applicable	Not applicable	30
Ohira 2014A	Glimepiride; 1 mg daily; Oral	Weight change	kg	63.7	15.85	Not applicable	Not applicable	Not applicable	30
Ohira 2014A	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	23.61	4.06	Not applicable	Not applicable	Not applicable	30
Ohira 2014A	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	8.54	10.06	Not applicable	Not applicable	Not applicable	30
Ohira 2014A	Pioglitazone; 15 mg daily; Oral	Weight change	kg	61.84	16.96	Not applicable	Not applicable	Not applicable	30
Ohira 2014B	Metformin type unspecified; 500 mg daily; Oral	BMI change	kg/m2	25.2	4.52	Not applicable	Not applicable	Not applicable	35
Ohira 2014B	Metformin type unspecified; 500 mg daily; Oral	HbA1c change	%	8.75	1.27	Not applicable	Not applicable	Not applicable	35
Ohira 2014B	Metformin type unspecified;	Weight change	kg/m2	62.63	13.03	Not applicable	Not applicable	Not applicable	35

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	500 mg daily; Oral								
Ohira 2014B	Sitagliptin; 50 mg daily; Oral	BMI change	kg/m2	25.15	3.14	Not applicable	Not applicable	Not applicable	35
Ohira 2014B	Sitagliptin; 50 mg daily; Oral	HbA1c change	%	9.05	1.69	Not applicable	Not applicable	Not applicable	35
Ohira 2014B	Sitagliptin; 50 mg daily; Oral	Weight change	kg/m2	65.29	10.74	Not applicable	Not applicable	Not applicable	35
Owens 2011	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.15	0.03	Not applicable	Not applicable	Not applicable	778
Owens 2011	Linagliptin; 5 mg daily; Oral	Weight change	kg	76.6	16.03	0.6	Not applicable	Not applicable	714
Owens 2011	Placebo; None; Oral	HbA1c change	%	8.14	0.05	Not applicable	Not applicable	Not applicable	262
Owens 2011	Placebo; None; Oral	Weight change	kg	77.4	16.39	1.1	Not applicable	Not applicable	222
Pan 2012B	Placebo; None; Oral	HbA1c change	%	8.01	0.82	Not applicable	Not applicable	Not applicable	144
Pan 2012B	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.05	0.84	Not applicable	Not applicable	Not applicable	148

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pan 2012B	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.09	0.85	Not applicable	Not applicable	Not applicable	146
Pan 2012B	Vildagliptin; 50-100 mg daily combined; Oral	HbA1c change	%	8.07	0.84	Not applicable	Not applicable	Not applicable	294
Pan 2012B - no obesity	Placebo; None; Oral	HbA1c change	%	7.99	Not applicable	Not applicable	Not applicable	Not applicable	131
Pan 2012B - no obesity	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	8.12	Not applicable	Not applicable	Not applicable	Not applicable	129
Pan 2012B - no obesity	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.04	Not applicable	Not applicable	Not applicable	Not applicable	137
Pan 2012B - no obesity	Vildagliptin; 50-100 mg daily combined; Oral	HbA1c change	%	8.08	Not applicable	Not applicable	Not applicable	Not applicable	266
Pan 2012B - obesity	Placebo; None; Oral	HbA1c change	%	8.2	Not applicable	Not applicable	Not applicable	Not applicable	13
Pan 2012B - obesity	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.85	Not applicable	Not applicable	Not applicable	Not applicable	16

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pan 2012B - obesity	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.21	Not applicable	Not applicable	Not applicable	Not applicable	10
Pan 2012B - obesity	Vildagliptin; 50-100 mg daily combined; Oral	HbA1c change	%	7.99	Not applicable	Not applicable	Not applicable	Not applicable	26
Pan 2014	Lixisenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.95	0.81	Not applicable	Not applicable	Not applicable	196
Pan 2014	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	73.18	13.93	Not applicable	Not applicable	Not applicable	196
Pan 2014	Placebo; None; Subcutaneous	HbA1c change	%	7.85	0.71	Not applicable	Not applicable	Not applicable	194
Pan 2014	Placebo; None; Subcutaneous	Weight change	kg	72.74	13.64	Not applicable	Not applicable	Not applicable	194
Papathanassiou 2009	Glimepiride; 4 mg daily; Oral	BMI change	kg/m2	31.9	5.5	Not applicable	Not applicable	Not applicable	14

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Papathanassiou 2009	Glimepiride; 4 mg daily; Oral	HbA1c change	%	7.4	0.8	Not applicable	Not applicable	Not applicable	14
Papathanassiou 2009	Glimepiride; 4 mg daily; Oral	Weight change	kg	81.4	15.3	Not applicable	Not applicable	Not applicable	14
Papathanassiou 2009	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	33.9	7	Not applicable	Not applicable	Not applicable	14
Papathanassiou 2009	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.7	0.7	Not applicable	Not applicable	Not applicable	14
Papathanassiou 2009	Pioglitazone; 30 mg daily; Oral	Weight change	kg	85.9	18.7	Not applicable	Not applicable	Not applicable	14
Park 2011	Metformin type unspecified; 1000 mg daily; Oral	BMI change	kg/m2	25.2	3	Not applicable	Not applicable	Not applicable	33
Park 2011	Metformin type unspecified; 1000 mg daily; Oral	HbA1c change	%	8.2	0.4	Not applicable	Not applicable	Not applicable	33
Park 2011	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	25.5	3.8	Not applicable	Not applicable	Not applicable	34

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Park 2011	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	8.3	0.3	Not applicable	Not applicable	Not applicable	34
Park 2014	Glimepiride + Metformin; 1500 mg + 4 mg daily; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	32
Park 2014	Glimepiride; 4 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	34
Park 2014	Metformin type unspecified; 1500 mg daily; Oral	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	33
Park 2023	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	27	3.2	Not applicable	Not applicable	Not applicable	56
Park 2023	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	56
Park 2023	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	73	11.6	Not applicable	Not applicable	Not applicable	56
Park 2023	Glimepiride; 1-2 mg daily; Oral	BMI change	kg/m2	26.7	3.6	Not applicable	Not applicable	Not applicable	56

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Park 2023	Glimepiride; 1-2 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	56
Park 2023	Glimepiride; 1-2 mg daily; Oral	Weight change	kg	70.6	12.8	Not applicable	Not applicable	Not applicable	56
Pasquel 2021	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	137
Pasquel 2021	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	98.2	18	Not applicable	Not applicable	Not applicable	137
Pasquel 2021	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	136
Pasquel 2021	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	Weight change	kg	101	20.6	Not applicable	Not applicable	Not applicable	136
Pei 2021	Insulin degludec/liraglutide;	BMI change	kg/m2	27.5	3.3	Not applicable	Not applicable	Not applicable	302



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Titration; Subcutaneous								
Pei 2021	Insulin degludec/liraglutide; Titration; Subcutaneous	HbA1c change	%	8.93	1.2	Not applicable	Not applicable	Not applicable	302
Pei 2021	Insulin degludec/liraglutide; Titration; Subcutaneous	Weight change	kg	76.8	13	Not applicable	Not applicable	Not applicable	302
Pei 2021	Insulin degludec; Titration; Subcutaneous	BMI change	kg/m <sup>2</sup>	27	2.9	Not applicable	Not applicable	Not applicable	151
Pei 2021	Insulin degludec; Titration; Subcutaneous	HbA1c change	%	8.96	1.17	Not applicable	Not applicable	Not applicable	151
Pei 2021	Insulin degludec; Titration; Subcutaneous	Weight change	kg	74.3	11.4	Not applicable	Not applicable	Not applicable	151

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Petrica 2011	Glimepiride; 4 mg daily; Oral	BMI change	kg/m2	32.1	5.95	Not applicable	Not applicable	Not applicable	34
Petrica 2011	Glimepiride; 4 mg daily; Oral	HbA1c change	%	7.49	1.03	Not applicable	Not applicable	Not applicable	34
Petrica 2011	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	33.71	6.37	Not applicable	Not applicable	Not applicable	34
Petrica 2011	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.7	0.81	Not applicable	Not applicable	Not applicable	34
Pf?tzner 2005	Glimepiride; 1-6 mg daily; Oral	BMI change	kg	31.8	4.3	Not applicable	Not applicable	Not applicable	84
Pf?tzner 2005	Glimepiride; 1-6 mg daily; Oral	HbA1c change	%	7.44	0.89	Not applicable	Not applicable	Not applicable	84
Pf?tzner 2005	Pioglitazone; 45 mg daily; Oral	BMI change	kg	31.7	5	Not applicable	Not applicable	Not applicable	89
Pf?tzner 2005	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	7.52	0.85	Not applicable	Not applicable	Not applicable	89
Pf?tzner 2011B	Glimepiride; 4 mg daily; Oral	BMI change	kg/m2	32.6	4.9	Not applicable	Not applicable	Not applicable	146

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pfizer 2011B	Glimepiride; 4 mg daily; Oral	HbA1c change	%	7.1	0.6	Not applicable	Not applicable	Not applicable	146
Pfizer 2011B	Glimepiride; 4 mg daily; Oral	Weight change	kg	96.2	17.5	Not applicable	Not applicable	Not applicable	146
Pfizer 2011B	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	32.5	5.3	Not applicable	Not applicable	Not applicable	142
Pfizer 2011B	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.4	0.7	Not applicable	Not applicable	Not applicable	142
Pfizer 2011B	Pioglitazone; 30 mg daily; Oral	Weight change	kg	94.1	18	Not applicable	Not applicable	Not applicable	142
Philis-Tsimikas 2013	Insulin degludec; 100 units/mL daily; Subcutaneous	BMI change	kg/m2	30	5.1	Not applicable	Not applicable	Not applicable	225
Philis-Tsimikas 2013	Insulin degludec; 100 units/mL daily; Subcutaneous	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	225

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Philis-Tsimikas 2013	Insulin degludec; 100 units/mL daily; Subcutaneous	Weight change	kg	83.9	19.3	Not applicable	Not applicable	Not applicable	225
Philis-Tsimikas 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	30.8	5.2	Not applicable	Not applicable	Not applicable	222
Philis-Tsimikas 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	9	1	Not applicable	Not applicable	Not applicable	222
Philis-Tsimikas 2013	Sitagliptin; 100 mg daily; Oral	Weight change	kg	86.1	19.8	Not applicable	Not applicable	Not applicable	222
Philis-Tsimikas 2019	IDegLira; Titrated; Subcutaneous	BMI change	kg/m2	31.5	4.8	Not applicable	Not applicable	Not applicable	210
Philis-Tsimikas 2019	IDegLira; Titrated; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	210
Philis-Tsimikas 2019	IDegLira; Titrated; Subcutaneous	Weight change	kg	89.3	17.6	Not applicable	Not applicable	Not applicable	210

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Philis-Tsimikas 2019	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	30.9	4.8	Not applicable	Not applicable	Not applicable	210
Philis-Tsimikas 2019	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	210
Philis-Tsimikas 2019	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	87.2	17.2	Not applicable	Not applicable	Not applicable	210
Pieber 2019	Semaglutide; 3-14 mg daily; Oral	BMI change	kg/m2	31.5	6.5	Not applicable	Not applicable	Not applicable	253
Pieber 2019	Semaglutide; 3-14 mg daily; Oral	HbA1c change	%	8.3	0.6	Not applicable	Not applicable	Not applicable	253
Pieber 2019	Semaglutide; 3-14 mg daily; Oral	Weight change	kg	88.9	19.6	Not applicable	Not applicable	Not applicable	253
Pieber 2019	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.5	6.1	Not applicable	Not applicable	Not applicable	251

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pieber 2019	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.3	0.6	Not applicable	Not applicable	Not applicable	251
Pieber 2019	Sitagliptin; 100 mg daily; Oral	Weight change	kg	88.4	20.1	Not applicable	Not applicable	Not applicable	251
Pinget 2013	Lixisenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33.7	6.7	Not applicable	Not applicable	Not applicable	323
Pinget 2013	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	323
Pinget 2013	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	92.9	22.9	Not applicable	Not applicable	Not applicable	323
Pinget 2013	Placebo; None; Subcutaneous	BMI change	kg/m2	34.4	7	Not applicable	Not applicable	Not applicable	161
Pinget 2013	Placebo; None; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	161
Pinget 2013	Placebo; None;	Weight change	kg	96.7	25.6	Not applicable	Not applicable	Not applicable	161

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Pozzilli 2017	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32.8	4.9	Not applicable	Not applicable	Not applicable	150
Pozzilli 2017	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	150
Pozzilli 2017	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	93.3	17.5	Not applicable	Not applicable	Not applicable	150
Pozzilli 2017	Placebo; None; Subcutaneous	BMI change	kg/m2	32.6	4.9	Not applicable	Not applicable	Not applicable	150
Pozzilli 2017	Placebo; None; Subcutaneous	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	150
Pozzilli 2017	Placebo; None; Subcutaneous	Weight change	kg	92.6	17.1	Not applicable	Not applicable	Not applicable	150

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2009A	Alogliptin; 12.5 mg daily; Oral	BMI change	kg/m2	32.3	5.7	Not applicable	Not applicable	Not applicable	197
Pratley 2009A	Alogliptin; 12.5 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	197
Pratley 2009A	Alogliptin; 12.5-25 mg daily combined; Oral	BMI change	kg/m2	32.7	5.55	Not applicable	Not applicable	Not applicable	396
Pratley 2009A	Alogliptin; 12.5-25 mg daily combined; Oral	HbA1c change	%	8.05	0.85	Not applicable	Not applicable	Not applicable	396
Pratley 2009A	Alogliptin; 25 mg daily; Oral	BMI change	kg/m2	33.1	5.4	Not applicable	Not applicable	Not applicable	199
Pratley 2009A	Alogliptin; 25 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	199
Pratley 2009A	Placebo; None; Oral	BMI change	kg/m2	33.2	6.2	Not applicable	Not applicable	Not applicable	97
Pratley 2009A	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	97



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2009B	Alogliptin; 12.5 mg daily; Oral	BMI change	kg/m2	30.2	4.8	Not applicable	Not applicable	Not applicable	203
Pratley 2009B	Alogliptin; 12.5-25 mg daily combined; Oral	BMI change	kg/m2	30.1	4.8	Not applicable	Not applicable	Not applicable	401
Pratley 2009B	Alogliptin; 25 mg daily; Oral	BMI change	kg/m2	30	4.8	Not applicable	Not applicable	Not applicable	198
Pratley 2009B	Placebo; None; Oral	BMI change	kg/m2	30	5.3	Not applicable	Not applicable	Not applicable	99
Pratley 2010	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	32.6	5.2	Not applicable	Not applicable	Not applicable	225
Pratley 2010	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	225
Pratley 2010	Liraglutide; 1.2 mg daily; Subcutaneous	Weight change	kg	93.7	18.4	Not applicable	Not applicable	Not applicable	225
Pratley 2010	Liraglutide; 1.2-1.8 mg daily combined;	BMI change	kg/m2	32.85	5.15	Not applicable	Not applicable	Not applicable	446

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Pratley 2010	Liraglutide; 1.2-1.8 mg daily combined; Subcutaneous	HbA1c change	%	8.45	0.75	Not applicable	Not applicable	Not applicable	446
Pratley 2010	Liraglutide; 1.2-1.8 mg daily combined; Subcutaneous	Weight change	kg	94.15	18.25	Not applicable	Not applicable	Not applicable	446
Pratley 2010	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.1	5.1	Not applicable	Not applicable	Not applicable	221
Pratley 2010	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.4	0.7	Not applicable	Not applicable	Not applicable	221
Pratley 2010	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	94.6	18.1	Not applicable	Not applicable	Not applicable	221
Pratley 2010	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.6	5.4	Not applicable	Not applicable	Not applicable	219

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2010	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	0.7	Not applicable	Not applicable	Not applicable	219
Pratley 2010	Sitagliptin; 100 mg daily; Oral	Weight change	kg	93.1	18.9	Not applicable	Not applicable	Not applicable	219
Pratley 2018A	Ertugliflozin + Sitagliptin; 15 mg/100 mg daily; Oral	BMI change	kg/m2	31.8	6.5	Not applicable	Not applicable	Not applicable	244
Pratley 2018A	Ertugliflozin + Sitagliptin; 15 mg/100 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	244
Pratley 2018A	Ertugliflozin + Sitagliptin; 15 mg/100 mg daily; Oral	Weight change	kg	87.5	20.5	Not applicable	Not applicable	Not applicable	244
Pratley 2018A	Ertugliflozin + Sitagliptin; 5 mg/100 mg daily; Oral	BMI change	kg/m2	31.8	6.5	Not applicable	Not applicable	Not applicable	243
Pratley 2018A	Ertugliflozin + Sitagliptin; 5 mg/100 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	243
Pratley 2018A	Ertugliflozin + Sitagliptin; 5 mg/100 mg daily; Oral	Weight change	kg	89.5	20.8	Not applicable	Not applicable	Not applicable	243

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	mg/100 mg daily; Oral								
Pratley 2018A	Ertugliflozin + Sitagliptin; 5-15mg/100mg daily combined; Oral	BMI change	kg/m2	31.8	6.49	Not applicable	Not applicable	Not applicable	487
Pratley 2018A	Ertugliflozin + Sitagliptin; 5-15mg/100mg daily combined; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	487
Pratley 2018A	Ertugliflozin + Sitagliptin; 5-15mg/100mg daily combined; Oral	Weight change	kg	88.5	20.7	Not applicable	Not applicable	Not applicable	487
Pratley 2018A	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	31.5	5.8	Not applicable	Not applicable	Not applicable	248
Pratley 2018A	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	248
Pratley 2018A	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	88	20.3	Not applicable	Not applicable	Not applicable	248

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2018A	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	31.8	6.2	Not applicable	Not applicable	Not applicable	250
Pratley 2018A	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	250
Pratley 2018A	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	88.6	22.2	Not applicable	Not applicable	Not applicable	250
Pratley 2018A	Ertugliflozin; 5-15 mg daily combined; Oral	BMI change	kg/m2	31.65	6	Not applicable	Not applicable	Not applicable	498
Pratley 2018A	Ertugliflozin; 5-15 mg daily combined; Oral	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	498
Pratley 2018A	Ertugliflozin; 5-15 mg daily combined; Oral	Weight change	kg	88.3	21.3	Not applicable	Not applicable	Not applicable	498
Pratley 2018A	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.7	6.5	Not applicable	Not applicable	Not applicable	247
Pratley 2018A	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	1	Not applicable	Not applicable	Not applicable	247

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2018A	Sitagliptin; 100 mg daily; Oral	Weight change	kg	89.8	23.5	Not applicable	Not applicable	Not applicable	247
Pratley 2018B	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	33.6	6.9	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	95.6	23	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	33.35	6.75	Not applicable	Not applicable	Not applicable	598
Pratley 2018B	Dulaglutide; 0.75-1.5 mg weekly combined;	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	598

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Pratley 2018B	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	94.5	22.4	Not applicable	Not applicable	Not applicable	598
Pratley 2018B	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	33.1	6.6	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	93.4	21.8	Not applicable	Not applicable	Not applicable	299
Pratley 2018B	Semaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	33.7	7.1	Not applicable	Not applicable	Not applicable	301

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2018B	Semaglutide; 0.5 mg weekly; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	301
Pratley 2018B	Semaglutide; 0.5 mg weekly; Subcutaneous	Weight change	kg	96.4	24.4	Not applicable	Not applicable	Not applicable	301
Pratley 2018B	Semaglutide; 0.5-1 mg weekly combined; Subcutaneous	BMI change	kg/m2	33.65	6.8	Not applicable	Not applicable	Not applicable	601
Pratley 2018B	Semaglutide; 0.5-1 mg weekly combined; Subcutaneous	HbA1c change	%	8.25	0.9	Not applicable	Not applicable	Not applicable	601
Pratley 2018B	Semaglutide; 0.5-1 mg weekly combined; Subcutaneous	Weight change	kg	95.95	22.65	Not applicable	Not applicable	Not applicable	601



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2018B	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	33.6	6.5	Not applicable	Not applicable	Not applicable	300
Pratley 2018B	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	300
Pratley 2018B	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	95.5	20.9	Not applicable	Not applicable	Not applicable	300
Pratley 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.4	6.7	Not applicable	Not applicable	Not applicable	284
Pratley 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	284
Pratley 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	95.5	21.9	Not applicable	Not applicable	Not applicable	284
Pratley 2019	Placebo; None; Oral + Subcutaneous	BMI change	kg/m2	32.9	6.1	Not applicable	Not applicable	Not applicable	142

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Pratley 2019	Placebo; None; Oral + Subcutaneous	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	142
Pratley 2019	Placebo; None; Oral + Subcutaneous	Weight change	kg	93.2	20	Not applicable	Not applicable	Not applicable	142
Pratley 2019	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	32.5	5.9	Not applicable	Not applicable	Not applicable	285
Pratley 2019	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8	0.7	Not applicable	Not applicable	Not applicable	285
Pratley 2019	Semaglutide; 14 mg daily; Oral	Weight change	kg	92.9	20.6	Not applicable	Not applicable	Not applicable	285
Punthakee 2012	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	30.6	5.4	Not applicable	Not applicable	Not applicable	392
Punthakee 2012	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	7.4	0.8	Not applicable	Not applicable	Not applicable	392
Punthakee 2012	Pioglitazone; 45 mg daily; Oral	Weight change	kg	85.4	18.2	Not applicable	Not applicable	Not applicable	392
Punthakee 2012	Placebo; None; Oral	BMI change	kg/m2	30.4	5.2	Not applicable	Not applicable	Not applicable	541

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Punthakee 2012	Placebo; None; Oral	HbA1c change	%	7.3	0.9	Not applicable	Not applicable	Not applicable	541
Punthakee 2012	Placebo; None; Oral	Weight change	kg	85.2	17.9	Not applicable	Not applicable	Not applicable	541
Raz 2008	Placebo; None; Oral	HbA1c change	%	9.1	0.8	Not applicable	Not applicable	Not applicable	94
Raz 2008	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	9.3	0.9	Not applicable	Not applicable	Not applicable	96
Raz 2008 - no obesity	Placebo; None; Oral	HbA1c change	%	9	0.7	Not applicable	Not applicable	Not applicable	46
Raz 2008 - no obesity	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	9.3	1	Not applicable	Not applicable	Not applicable	47
Raz 2008 - obesity	Placebo; None; Oral	HbA1c change	%	9.2	0.9	Not applicable	Not applicable	Not applicable	46
Raz 2008 - obesity	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	9.2	0.7	Not applicable	Not applicable	Not applicable	47
Ridderstrale 2014	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	29.9	5.3	Not applicable	Not applicable	Not applicable	765
Ridderstrale 2014	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	7.92	0.81	Not applicable	Not applicable	Not applicable	765
Ridderstrale 2014	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	82.5	19.2	Not applicable	Not applicable	Not applicable	765

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Ridderstrale 2014	Glimepiride; 1-4 mg daily; Oral	BMI change	kg/m2	30.3	5.3	Not applicable	Not applicable	Not applicable	780
Ridderstrale 2014	Glimepiride; 1-4 mg daily; Oral	HbA1c change	%	7.92	0.86	Not applicable	Not applicable	Not applicable	780
Ridderstrale 2014	Glimepiride; 1-4 mg daily; Oral	Weight change	kg	83	19.2	Not applicable	Not applicable	Not applicable	780
Riddle 1998	Glimepiride; 16 mg daily; Oral	BMI change	kg/m2	32.3	4.4	Not applicable	Not applicable	Not applicable	72
Riddle 1998	Glimepiride; 16 mg daily; Oral	HbA1c change	%	9.7	1.3	Not applicable	Not applicable	Not applicable	70
Riddle 1998	Glimepiride; 16 mg daily; Oral	Weight change	kg	93.9	15.9	Not applicable	Not applicable	Not applicable	70
Riddle 1998	Placebo; None; Oral	BMI change	kg/m2	33.7	5.4	Not applicable	Not applicable	Not applicable	73
Riddle 1998	Placebo; None; Oral	HbA1c change	%	9.8	1.3	Not applicable	Not applicable	Not applicable	62
Riddle 1998	Placebo; None; Oral	Weight change	kg	99.2	20.8	Not applicable	Not applicable	Not applicable	62
Riddle 2013A	Lixisenatide; 10-20 mcg daily;	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	327

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Riddle 2013A	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	87	20	Not applicable	Not applicable	Not applicable	327
Riddle 2013A	Placebo; None; Subcutaneous	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	166
Riddle 2013A	Placebo; None; Subcutaneous	Weight change	kg	89	21	Not applicable	Not applicable	Not applicable	166
Riddle 2013B	Lixisenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.6	0.5	Not applicable	Not applicable	Not applicable	223
Riddle 2013B	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	87.5	22	Not applicable	Not applicable	Not applicable	223
Riddle 2013B	Placebo; None; Subcutaneous	HbA1c change	%	7.6	0.5	Not applicable	Not applicable	Not applicable	223

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Riddle 2013B	Placebo; None; Subcutaneous	Weight change	kg	86.7	20.5	Not applicable	Not applicable	Not applicable	223
Roberts 2005	Glimepiride; 2-8 mg daily; Oral	BMI change	kg/m2	33.98	5.15	Not applicable	Not applicable	Not applicable	82
Roberts 2005	Glimepiride; 2-8 mg daily; Oral	HbA1c change	%	8.15	0.65	Not applicable	Not applicable	Not applicable	82
Roberts 2005	Glimepiride; 2-8 mg daily; Oral	Weight change	kg	100.88	18.97	Not applicable	Not applicable	Not applicable	82
Roberts 2005	Placebo; None; Oral	BMI change	kg/m2	32.76	5.11	Not applicable	Not applicable	Not applicable	77
Roberts 2005	Placebo; None; Oral	HbA1c change	%	8.15	0.76	Not applicable	Not applicable	Not applicable	77
Roberts 2005	Placebo; None; Oral	Weight change	kg	96.31	19.15	Not applicable	Not applicable	Not applicable	77
Rodbard 2016	Canagliflozin; 100-300 mg daily; Oral	BMI change	kg/m2	32.3	5.8	Not applicable	Not applicable	Not applicable	107
Rodbard 2016	Canagliflozin; 100-300 mg daily; Oral	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	107
Rodbard 2016	Canagliflozin; 100-300 mg daily; Oral	Weight change	kg	94.1	21.8	Not applicable	Not applicable	Not applicable	107

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rodbard 2016	Placebo; None; Oral	BMI change	kg/m2	31.7	5.5	Not applicable	Not applicable	Not applicable	106
Rodbard 2016	Placebo; None; Oral	HbA1c change	%	8.4	0.8	Not applicable	Not applicable	Not applicable	106
Rodbard 2016	Placebo; None; Oral	Weight change	kg	90	19.3	Not applicable	Not applicable	Not applicable	106
Rodbard 2017	IDegLira; Titrated; Subcutaneous	BMI change	kg/m2	31.2	4.8	Not applicable	Not applicable	Not applicable	289
Rodbard 2017	IDegLira; Titrated; Subcutaneous	HbA1c change	%	7.9	0.6	Not applicable	Not applicable	Not applicable	289
Rodbard 2017	IDegLira; Titrated; Subcutaneous	Weight change	kg	87.2	18.6	Not applicable	Not applicable	Not applicable	289
Rodbard 2017	Placebo; None; Subcutaneous	BMI change	kg/m2	32	4.5	Not applicable	Not applicable	Not applicable	146
Rodbard 2017	Placebo; None; Subcutaneous	HbA1c change	%	7.9	0.6	Not applicable	Not applicable	Not applicable	146
Rodbard 2017	Placebo; None; Subcutaneous	Weight change	kg	89.3	17.5	Not applicable	Not applicable	Not applicable	146

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Rodbard 2019	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	32.8	5.9	Not applicable	Not applicable	Not applicable	410
Rodbard 2019	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	410
Rodbard 2019	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	91.3	20.1	Not applicable	Not applicable	Not applicable	410
Rodbard 2019	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	32.9	6.3	Not applicable	Not applicable	Not applicable	411
Rodbard 2019	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	411
Rodbard 2019	Semaglutide; 14 mg daily; Oral	Weight change	kg	91.9	20.5	Not applicable	Not applicable	Not applicable	411
Roden 2005 1.2	Metformin type unspecified; 850-2550 mg daily; Oral	BMI change	kg/m2	30	4.6	Not applicable	Not applicable	Not applicable	320
Roden 2005 1.2	Metformin type unspecified;	HbA1c change	%	8.8	0.97	Not applicable	Not applicable	Not applicable	320



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	850-2550 mg daily; Oral								
Roden 2005 1.2	Metformin type unspecified; 850-2550 mg daily; Oral	Weight change	kg	84.9	14.5	Not applicable	Not applicable	Not applicable	320
Roden 2005 1.2	Pioglitazone; 30-45 mg daily; Oral	BMI change	kg/m2	30.2	4.4	Not applicable	Not applicable	Not applicable	319
Roden 2005 1.2	Pioglitazone; 30-45 mg daily; Oral	HbA1c change	%	8.8	0.98	Not applicable	Not applicable	Not applicable	319
Roden 2005 1.2	Pioglitazone; 30-45 mg daily; Oral	Weight change	kg	85.3	15.1	Not applicable	Not applicable	Not applicable	319
Rosenstock 2006	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	178
Rosenstock 2006	Placebo; None; Oral	Weight change	kg	86.4	17.4	Not applicable	Not applicable	Not applicable	178
Rosenstock 2006	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	175
Rosenstock 2006	Sitagliptin; 100 mg daily; Oral	Weight change	kg	90.9	17	Not applicable	Not applicable	Not applicable	175

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2009B	Alogliptin; 12.5 mg daily; Oral	HbA1c change	%	9.3	1.1	Not applicable	Not applicable	Not applicable	131
Rosenstock 2009B	Alogliptin; 12.5 mg daily; Oral	Weight change	kg	87.9	19.9	Not applicable	Not applicable	Not applicable	131
Rosenstock 2009B	Alogliptin; 12.5-25 mg daily combined; Oral	HbA1c change	%	9.3	1.1	Not applicable	Not applicable	Not applicable	260
Rosenstock 2009B	Alogliptin; 12.5-25 mg daily combined; Oral	Weight change	kg	87.3	19.6	Not applicable	Not applicable	Not applicable	260
Rosenstock 2009B	Alogliptin; 25 mg daily; Oral	HbA1c change	%	9.3	1.1	Not applicable	Not applicable	Not applicable	129
Rosenstock 2009B	Alogliptin; 25 mg daily; Oral	Weight change	kg	86.7	19.4	Not applicable	Not applicable	Not applicable	129
Rosenstock 2009B	Placebo; None; Oral	HbA1c change	%	9.3	1.1	Not applicable	Not applicable	Not applicable	130
Rosenstock 2009B	Placebo; None; Oral	Weight change	kg	91	21	Not applicable	Not applicable	Not applicable	130

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2012	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.37	0.96	Not applicable	Not applicable	Not applicable	140
Rosenstock 2012	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	84.8	22.2	Not applicable	Not applicable	Not applicable	140
Rosenstock 2012	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.4	1.03	Not applicable	Not applicable	Not applicable	141
Rosenstock 2012	Dapagliflozin; 5 mg daily; Oral	Weight change	kg	87.8	20.7	Not applicable	Not applicable	Not applicable	141
Rosenstock 2012	Dapagliflozin; 5-10 mg daily combined; Oral	HbA1c change	%	8.38	0.99	Not applicable	Not applicable	Not applicable	281
Rosenstock 2012	Dapagliflozin; 5-10 mg daily combined; Oral	Weight change	kg	86.3	21.5	Not applicable	Not applicable	Not applicable	281
Rosenstock 2012	Placebo; None; Oral	HbA1c change	%	8.34	1	Not applicable	Not applicable	Not applicable	139
Rosenstock 2012	Placebo; None; Oral	Weight change	kg	86.4	21.3	Not applicable	Not applicable	Not applicable	139
Rosenstock 2013	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33.5	6.5	Not applicable	Not applicable	Not applicable	316

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2013	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.02	0.8	Not applicable	Not applicable	Not applicable	316
Rosenstock 2013	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	96.1	22.5	Not applicable	Not applicable	Not applicable	316
Rosenstock 2013	Lixisenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	33.7	6.3	Not applicable	Not applicable	Not applicable	318
Rosenstock 2013	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.03	0.8	Not applicable	Not applicable	Not applicable	318
Rosenstock 2013	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	94	19.6	Not applicable	Not applicable	Not applicable	318
Rosenstock 2014A	Lixisenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	30.1	6.6	Not applicable	Not applicable	Not applicable	574
Rosenstock 2014A	Lixisenatide; 10-20 mcg daily;	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	574

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Rosenstock 2014A	Lixisenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	82.6	21.9	Not applicable	Not applicable	Not applicable	574
Rosenstock 2014A	Placebo; None; Subcutaneous	BMI change	kg/m2	30.4	6.6	Not applicable	Not applicable	Not applicable	285
Rosenstock 2014A	Placebo; None; Subcutaneous	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	285
Rosenstock 2014A	Placebo; None; Subcutaneous	Weight change	kg	84.5	22.8	Not applicable	Not applicable	Not applicable	285
Rosenstock 2014B	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	34.7	3.8	Not applicable	Not applicable	Not applicable	186
Rosenstock 2014B	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.39	0.74	Not applicable	Not applicable	Not applicable	186
Rosenstock 2014B	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	96.7	17.9	Not applicable	Not applicable	Not applicable	186

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2014B	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	34.8	3.9	Not applicable	Not applicable	Not applicable	375
Rosenstock 2014B	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.34	0.73	Not applicable	Not applicable	Not applicable	375
Rosenstock 2014B	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	96.3	17.6	Not applicable	Not applicable	Not applicable	375
Rosenstock 2014B	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	35	4	Not applicable	Not applicable	Not applicable	189
Rosenstock 2014B	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.29	0.72	Not applicable	Not applicable	Not applicable	189
Rosenstock 2014B	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	95.9	17.3	Not applicable	Not applicable	Not applicable	189
Rosenstock 2014B	Placebo; None; Oral	BMI change	kg/m2	34.7	4.3	Not applicable	Not applicable	Not applicable	188
Rosenstock 2014B	Placebo; None; Oral	HbA1c change	%	8.33	0.72	Not applicable	Not applicable	Not applicable	188

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2014B	Placebo; None; Oral	Weight change	kg	95.5	17.5	Not applicable	Not applicable	Not applicable	188
Rosenstock 2015A	Dapagliflozin + Placebo; 10 mg daily; Oral	HbA1c change	%	8.87	1.16	Not applicable	Not applicable	Not applicable	179
Rosenstock 2015A	Dapagliflozin + Placebo; 10 mg daily; Oral	Weight change	kg	86.3	18.6	Not applicable	Not applicable	Not applicable	172
Rosenstock 2015A	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	HbA1c change	%	8.92	1.18	Not applicable	Not applicable	Not applicable	179
Rosenstock 2015A	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	Weight change	kg	87.1	18	Not applicable	Not applicable	Not applicable	176
Rosenstock 2015A	Saxagliptin + Placebo; 5 mg daily; Oral	HbA1c change	%	9.03	1.05	Not applicable	Not applicable	Not applicable	176
Rosenstock 2015A	Saxagliptin + Placebo; 5 mg daily; Oral	Weight change	kg	88	18.7	Not applicable	Not applicable	Not applicable	175

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2015B	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	169
Rosenstock 2015B	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	91.6	20.1	Not applicable	Not applicable	Not applicable	169
Rosenstock 2015B	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	8.2	0.8	Not applicable	Not applicable	Not applicable	170
Rosenstock 2015B	Empagliflozin ; 10-25 mg daily combined; Oral	Weight change	kg	90.5	22.5	Not applicable	Not applicable	Not applicable	170
Rosenstock 2015B	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	155
Rosenstock 2015B	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	94.7	20.7	Not applicable	Not applicable	Not applicable	155
Rosenstock 2016A	Insulin glulisine; Combined; Subcutaneous	HbA1c change	%	7.85	0.5	Not applicable	Not applicable	Not applicable	596
Rosenstock 2016A	Insulin glulisine;	Weight change	kg	89.25	16.57	Not applicable	Not applicable	Not applicable	596



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Combined; Subcutaneous								
Rosenstock 2016A	Insulin glulisine; Titrated once daily; Subcutaneous	HbA1c change	%	7.8	0.5	Not applicable	Not applicable	Not applicable	298
Rosenstock 2016A	Insulin glulisine; Titrated once daily; Subcutaneous	Weight change	kg	88.4	15.8	Not applicable	Not applicable	Not applicable	298
Rosenstock 2016A	Insulin glulisine; Titrated Thrice daily; Subcutaneous	HbA1c change	%	7.9	0.5	Not applicable	Not applicable	Not applicable	298
Rosenstock 2016A	Insulin glulisine; Titrated Thrice daily; Subcutaneous	Weight change	kg	90.1	17.3	Not applicable	Not applicable	Not applicable	298
Rosenstock 2016A	Lixisenatide; 20 mcg daily;	HbA1c change	%	7.9	0.5	Not applicable	Not applicable	Not applicable	298

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Rosenstock 2016A	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	90.2	17.5	Not applicable	Not applicable	Not applicable	298
Rosenstock 2016B	Insulin glargine/Lixisenatide; 5-20 mcg/10-60 units daily; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	469
Rosenstock 2016B	Insulin glargine/Lixisenatide; 5-20 mcg/10-60 units daily; Subcutaneous	Weight change	kg	89.4	17.2	Not applicable	Not applicable	Not applicable	468
Rosenstock 2016B	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	467
Rosenstock 2016B	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	89.8	16.3	Not applicable	Not applicable	Not applicable	466

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2016B	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.1	0.7	Not applicable	Not applicable	Not applicable	234
Rosenstock 2016B	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	90.8	16.3	Not applicable	Not applicable	Not applicable	233
Rosenstock 2016C	Insulin glargine/Lixisenatide; 5-30 mcg/10-60 units daily; Subcutaneous	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	161
Rosenstock 2016C	Insulin glargine/Lixisenatide; 5-30 mcg/10-60 units daily; Subcutaneous	Weight change	kg	90.1	17.6	Not applicable	Not applicable	Not applicable	161
Rosenstock 2016C	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	162
Rosenstock 2016C	Insulin glargine;	Weight change	kg	91.6	16.7	Not applicable	Not applicable	Not applicable	162

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Titrated; Subcutaneous								
Rosenstock 2018A	Exenatide; 40 mcg daily; Subcutaneous	HbA1c change	%	8.5	0.8	Not applicable	Not applicable	Not applicable	153
Rosenstock 2018A	Exenatide; 40 mcg daily; Subcutaneous	Weight change	kg	96.8	18.6	Not applicable	Not applicable	Not applicable	153
Rosenstock 2018A	Exenatide; 40-60 mcg daily combined; Subcutaneous	HbA1c change	%	8.5	0.8	Not applicable	Not applicable	Not applicable	306
Rosenstock 2018A	Exenatide; 40-60 mcg daily combined; Subcutaneous	Weight change	kg	97.2	18.4	Not applicable	Not applicable	Not applicable	306
Rosenstock 2018A	Exenatide; 60 mcg daily; Subcutaneous	HbA1c change	%	8.5	0.8	Not applicable	Not applicable	Not applicable	153
Rosenstock 2018A	Exenatide; 60 mcg daily;	Weight change	kg	97.6	18.3	Not applicable	Not applicable	Not applicable	153

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Rosenstock 2018A	Placebo; None; Subcutaneous	HbA1c change	%	8.5	0.8	Not applicable	Not applicable	Not applicable	154
Rosenstock 2018A	Placebo; None; Subcutaneous	Weight change	kg	98.2	21.9	Not applicable	Not applicable	Not applicable	154
Rosenstock 2018B	Ertugliflozin; 15 mg daily; Oral	BMI change	kg/m2	31.1	4.5	Not applicable	Not applicable	Not applicable	205
Rosenstock 2018B	Ertugliflozin; 15 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	205
Rosenstock 2018B	Ertugliflozin; 15 mg daily; Oral	Weight change	kg	85.3	16.5	Not applicable	Not applicable	Not applicable	205
Rosenstock 2018B	Ertugliflozin; 5 mg daily; Oral	BMI change	kg/m2	30.8	4.8	Not applicable	Not applicable	Not applicable	207
Rosenstock 2018B	Ertugliflozin; 5 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	207
Rosenstock 2018B	Ertugliflozin; 5 mg daily; Oral	Weight change	kg	84.8	17.2	Not applicable	Not applicable	Not applicable	207

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2018B	Ertugliflozin; 5-15 mg daily combined; Oral	BMI change	kg/m2	30.9	4.6	Not applicable	Not applicable	Not applicable	412
Rosenstock 2018B	Ertugliflozin; 5-15 mg daily combined; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	412
Rosenstock 2018B	Ertugliflozin; 5-15 mg daily combined; Oral	Weight change	kg	85	16.8	Not applicable	Not applicable	Not applicable	412
Rosenstock 2018B	Placebo; None; Oral	BMI change	kg/m2	30.7	4.7	Not applicable	Not applicable	Not applicable	209
Rosenstock 2018B	Placebo; None; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	209
Rosenstock 2018B	Placebo; None; Oral	Weight change	kg	84.5	17.1	Not applicable	Not applicable	Not applicable	209
Rosenstock 2019A	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	31.4	5.3	Not applicable	Not applicable	Not applicable	3499
Rosenstock 2019A	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.9	1	Not applicable	Not applicable	Not applicable	3499
Rosenstock 2019A	Placebo; None; Oral	BMI change	kg/m2	31.3	5.4	Not applicable	Not applicable	Not applicable	3492
Rosenstock 2019A	Placebo; None; Oral	HbA1c change	%	8	1	Not applicable	Not applicable	Not applicable	3492

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2019B	Glimepiride; 1-4 mg daily; Oral	BMI change	kg/m2	30	5.1	Not applicable	Not applicable	Not applicable	2982
Rosenstock 2019B	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	30.2	5.2	Not applicable	Not applicable	Not applicable	3012
Rosenstock 2019C	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	32.3	6.3	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Semaglutide; 14 mg daily; Oral	Weight change	kg	91.2	21.7	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Semaglutide; 3 mg daily; Oral	BMI change	kg/m2	32.6	6.7	Not applicable	Not applicable	Not applicable	466
Rosenstock 2019C	Semaglutide; 3 mg daily; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	466
Rosenstock 2019C	Semaglutide; 3 mg daily; Oral	Weight change	kg	91.6	22	Not applicable	Not applicable	Not applicable	466
Rosenstock 2019C	Semaglutide; 3-14 mg daily combined; Oral	BMI change	kg/m2	32.5	6.5	Not applicable	Not applicable	Not applicable	1396

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Rosenstock 2019C	Semaglutide; 3-14 mg daily combined; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	1396
Rosenstock 2019C	Semaglutide; 3-14 mg daily combined; Oral	Weight change	kg	91.4	21.5	Not applicable	Not applicable	Not applicable	1396
Rosenstock 2019C	Semaglutide; 7 mg daily; Oral	BMI change	kg/m2	32.6	6.4	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Semaglutide; 7 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Semaglutide; 7 mg daily; Oral	Weight change	kg	91.3	20.8	Not applicable	Not applicable	Not applicable	465
Rosenstock 2019C	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	32.5	6.2	Not applicable	Not applicable	Not applicable	467
Rosenstock 2019C	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	467
Rosenstock 2019C	Sitagliptin; 100 mg daily; Oral	Weight change	kg	90.9	21	Not applicable	Not applicable	Not applicable	467
Rosenstock 2019D	Dapagliflozin + Saxagliptin;	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	290



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	5 mg + 5 mg daily; Oral								
Rosenstock 2019D	Dapagliflozin + Saxagliptin; 5 mg + 5 mg daily; Oral	Weight change	kg	87.2	18.7	Not applicable	Not applicable	Not applicable	290
Rosenstock 2019D	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	289
Rosenstock 2019D	Dapagliflozin; 5 mg daily; Oral	Weight change	kg	89.5	17.8	Not applicable	Not applicable	Not applicable	289
Rosenstock 2019D	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	8.3	1	Not applicable	Not applicable	Not applicable	291
Rosenstock 2019D	Saxagliptin; 5 mg daily; Oral	Weight change	kg	92.3	18.7	Not applicable	Not applicable	Not applicable	291
Rosenstock 2023	Insulin lispro; Titrated; Subcutaneous	BMI change	kg/m <sup>2</sup>	33	5.2	Not applicable	Not applicable	Not applicable	708
Rosenstock 2023	Insulin lispro; Titrated; Subcutaneous	HbA1c change	%	8.8	0.96	Not applicable	Not applicable	Not applicable	708
Rosenstock 2023	Insulin lispro; Titrated;	Weight change	kg	90.3	17.7	Not applicable	Not applicable	Not applicable	708

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Rosenstock 2023	Tirzepatide; 10 mg weekly; Subcutaneous	BMI change	kg/m2	33.4	5.5	Not applicable	Not applicable	Not applicable	238
Rosenstock 2023	Tirzepatide; 10 mg weekly; Subcutaneous	HbA1c change	%	8.78	0.98	Not applicable	Not applicable	Not applicable	238
Rosenstock 2023	Tirzepatide; 10 mg weekly; Subcutaneous	Weight change	kg	89.1	18.8	Not applicable	Not applicable	Not applicable	238
Rosenstock 2023	Tirzepatide; 15 mg weekly; Subcutaneous	BMI change	kg/m2	33	5.3	Not applicable	Not applicable	Not applicable	236
Rosenstock 2023	Tirzepatide; 15 mg weekly; Subcutaneous	HbA1c change	%	8.74	1.01	Not applicable	Not applicable	Not applicable	236
Rosenstock 2023	Tirzepatide; 15 mg	Weight change	kg	91.2	18.7	Not applicable	Not applicable	Not applicable	236

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Rosenstock 2023	Tirzepatide; 5 mg weekly; Subcutaneous	BMI change	kg/m2	33.5	5.3	Not applicable	Not applicable	Not applicable	243
Rosenstock 2023	Tirzepatide; 5 mg weekly; Subcutaneous	HbA1c change	%	8.89	0.97	Not applicable	Not applicable	Not applicable	243
Rosenstock 2023	Tirzepatide; 5 mg weekly; Subcutaneous	Weight change	kg	91.7	17.9	Not applicable	Not applicable	Not applicable	243
Rosenstock 2023	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	BMI change	kg/m2	33.3	5.4	Not applicable	Not applicable	Not applicable	717
Rosenstock 2023	Tirzepatide; 5-15 mg weekly combined; Subcutaneous	HbA1c change	%	8.8	0.99	Not applicable	Not applicable	Not applicable	717
Rosenstock 2023	Tirzepatide; 5-15 mg	Weight change	kg	90.7	18.5	Not applicable	Not applicable	Not applicable	717

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly combined; Subcutaneous								
Roussel 2019	Placebo; None; Oral	BMI change	kg/m2	31.1	5.7	Not applicable	Not applicable	Not applicable	370
Roussel 2019	Placebo; None; Oral	HbA1c change	%	8.8	1	Not applicable	Not applicable	Not applicable	370
Roussel 2019	Placebo; None; Oral	Weight change	kg	85.6	18.9	Not applicable	Not applicable	Not applicable	370
Roussel 2019	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.2	5.8	Not applicable	Not applicable	Not applicable	373
Roussel 2019	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.8	0.9	Not applicable	Not applicable	Not applicable	373
Roussel 2019	Sitagliptin; 100 mg daily; Oral	Weight change	kg	84.8	19.8	Not applicable	Not applicable	Not applicable	373
Russell-Jones 2009	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	30.3	5.3	Not applicable	Not applicable	Not applicable	232
Russell-Jones 2009	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	232

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Russell-Jones 2009	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	85	17.9	Not applicable	Not applicable	Not applicable	232
Russell-Jones 2009	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30.4	5.3	Not applicable	Not applicable	Not applicable	230
Russell-Jones 2009	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	230
Russell-Jones 2009	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	85.5	19.4	Not applicable	Not applicable	Not applicable	230
Russell-Jones 2009	Placebo; None; Subcutaneous	BMI change	kg/m2	31.3	5	Not applicable	Not applicable	Not applicable	114
Russell-Jones 2009	Placebo; None; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	114
Russell-Jones 2009	Placebo; None; Subcutaneous	Weight change	kg	85.7	16.7	Not applicable	Not applicable	Not applicable	114

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Sathyanarayana 2011	Pioglitazone + Exenatide; 45 mg + 20 mcg daily; Oral + Subcutaneous	BMI change	kg/m2	34.1	1.3	Not applicable	Not applicable	Not applicable	11
Sathyanarayana 2011	Pioglitazone + Exenatide; 45 mg + 20 mcg daily; Oral + Subcutaneous	HbA1c change	%	8.1	0.5	Not applicable	Not applicable	Not applicable	11
Sathyanarayana 2011	Pioglitazone + Exenatide; 45 mg + 20 mcg daily; Oral + Subcutaneous	Weight change	kg	95.5	5	Not applicable	Not applicable	Not applicable	11
Sathyanarayana 2011	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	29.7	1.9	Not applicable	Not applicable	Not applicable	10
Sathyanarayana 2011	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.3	0.4	Not applicable	Not applicable	Not applicable	10

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Sathyanaarayana 2011	Pioglitazone; 45 mg daily; Oral	Weight change	kg	93.1	7.5	Not applicable	Not applicable	Not applicable	10
Savvidou 2016	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	32.2	5.5	Not applicable	Not applicable	Not applicable	55
Savvidou 2016	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.3	1.5	Not applicable	Not applicable	Not applicable	55
Savvidou 2016	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	84.6	12.4	Not applicable	Not applicable	Not applicable	55
Savvidou 2016	Insulin type unspecified; Titrated; Subcutaneous	BMI change	kg/m2	33.4	3.9	Not applicable	Not applicable	Not applicable	48
Savvidou 2016	Insulin type unspecified; Titrated; Subcutaneous	HbA1c change	%	8	0.9	Not applicable	Not applicable	Not applicable	48
Savvidou 2016	Insulin type unspecified; Titrated;	Weight change	kg	90.4	9.9	Not applicable	Not applicable	Not applicable	48

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Schernthaner 2013	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	377
Schernthaner 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	378
Schernthaner 2015A	Glimepiride; 1-6 mg daily; Oral	BMI change	kg/m2	29.3	4.7	Not applicable	Not applicable	Not applicable	360
Schernthaner 2015A	Glimepiride; 1-6 mg daily; Oral	HbA1c change	%	7.62	0.65	Not applicable	Not applicable	Not applicable	360
Schernthaner 2015A	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.9	5	Not applicable	Not applicable	Not applicable	360
Schernthaner 2015A	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	7.58	0.67	Not applicable	Not applicable	Not applicable	360
Scirica 2013	Placebo; None; Oral	BMI change	kg/m2	31.2	5.7	Not applicable	Not applicable	Not applicable	8212
Scirica 2013	Placebo; None; Oral	HbA1c change	%	8	1.4	Not applicable	Not applicable	Not applicable	8212
Scirica 2013	Placebo; None; Oral	Weight change	kg	88.1	19.4	Not applicable	Not applicable	Not applicable	8212



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Scirica 2013	Saxagliptin; 2.5-5 mg daily; Oral	BMI change	kg/m2	31.1	5.5	Not applicable	Not applicable	Not applicable	8280
Scirica 2013	Saxagliptin; 2.5-5 mg daily; Oral	HbA1c change	%	8	1.4	Not applicable	Not applicable	Not applicable	8280
Scirica 2013	Saxagliptin; 2.5-5 mg daily; Oral	Weight change	kg	87.7	18.7	Not applicable	Not applicable	Not applicable	8280
Scott 2018	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	7.8	0.7	Not applicable	Not applicable	Not applicable	306
Scott 2018	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.7	0.7	Not applicable	Not applicable	Not applicable	307
Seino 2012	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.54	0.73	Not applicable	Not applicable	Not applicable	154
Seino 2012	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	65.93	13	Not applicable	Not applicable	Not applicable	154
Seino 2012	Placebo; None; Subcutaneous	HbA1c change	%	8.52	0.78	Not applicable	Not applicable	Not applicable	157

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Seino 2012	Placebo; None; Subcutaneous	Weight change	kg	65.6	12.47	Not applicable	Not applicable	Not applicable	157
Seino 2016	Liraglutide; 0.9 mg daily; Subcutaneous	HbA1c change	%	8.8	0.9	Not applicable	Not applicable	Not applicable	127
Seino 2016	Liraglutide; 0.9 mg daily; Subcutaneous	Weight change	kg	67.7	15.2	Not applicable	Not applicable	Not applicable	127
Seino 2016	Placebo; None; Subcutaneous	HbA1c change	%	8.8	0.9	Not applicable	Not applicable	Not applicable	130
Seino 2016	Placebo; None; Subcutaneous	Weight change	kg	65.9	13	Not applicable	Not applicable	Not applicable	130
Seino 2021	Placebo; None; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	71
Seino 2021	Placebo; None; Oral	Weight change	kg	72.6	13.3	Not applicable	Not applicable	Not applicable	71
Seino 2021	Sitagliptin; 50 mg daily; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	70

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Seino 2021	Sitagliptin; 50 mg daily; Oral	Weight change	kg	73.4	14.4	Not applicable	Not applicable	Not applicable	70
Shankar 2017A	Placebo; None; Oral	BMI change	kg/m2	26.1	2.9	Not applicable	Not applicable	Not applicable	233
Shankar 2017A	Placebo; None; Oral	HbA1c change	%	8.8	0.9	Not applicable	Not applicable	Not applicable	233
Shankar 2017A	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.9	3	Not applicable	Not applicable	Not applicable	234
Shankar 2017A	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	234
Sivalingam 2023	Placebo; 1 mg weekly; Subcutaneous	HbA1c change	mmol/mol	59.7	11.3	Not applicable	Not applicable	Not applicable	30
Sivalingam 2023	Placebo; 1 mg weekly; Subcutaneous	Weight change	kg	92.9	12.2	Not applicable	Not applicable	Not applicable	30
Sivalingam 2023	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	mmol/mol	63.3	15.1	Not applicable	Not applicable	Not applicable	30
Sivalingam 2023	Semaglutide; 1 mg weekly;	Weight change	kg	93	16.4	Not applicable	Not applicable	Not applicable	30

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Skrivanek 2014	Dulaglutide; 0.25 mg weekly; Subcutaneous	BMI change	kg/m2	31	4	Not applicable	Not applicable	Not applicable	24
Skrivanek 2014	Dulaglutide; 0.25 mg weekly; Subcutaneous	HbA1c change	%	7.8	0.8	Not applicable	Not applicable	Not applicable	24
Skrivanek 2014	Dulaglutide; 0.25-3 mg weekly; Subcutaneous	BMI change	kg/m2	32	4.8	Not applicable	Not applicable	Not applicable	150
Skrivanek 2014	Dulaglutide; 0.25-3 mg weekly; Subcutaneous	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	150
Skrivanek 2014	Dulaglutide; 0.5 mg weekly; Subcutaneous	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	25
Skrivanek 2014	Dulaglutide; 0.5 mg	HbA1c change	%	8.3	1.3	Not applicable	Not applicable	Not applicable	25

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Skrivanek 2014	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	21
Skrivanek 2014	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.2	1.1	Not applicable	Not applicable	Not applicable	21
Skrivanek 2014	Dulaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	34	4	Not applicable	Not applicable	Not applicable	10
Skrivanek 2014	Dulaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	7.9	0.6	Not applicable	Not applicable	Not applicable	10
Skrivanek 2014	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	32	5	Not applicable	Not applicable	Not applicable	25
Skrivanek 2014	Dulaglutide; 1.5 mg weekly;	HbA1c change	%	8.7	1.5	Not applicable	Not applicable	Not applicable	25

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Skrivanek 2014	Dulaglutide; 2 mg weekly; Subcutaneous	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	30
Skrivanek 2014	Dulaglutide; 2 mg weekly; Subcutaneous	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	30
Skrivanek 2014	Dulaglutide; 3 mg weekly; Subcutaneous	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	15
Skrivanek 2014	Dulaglutide; 3 mg weekly; Subcutaneous	HbA1c change	%	8	1.1	Not applicable	Not applicable	Not applicable	15
Skrivanek 2014	Placebo; None; Oral + Subcutaneous	BMI change	kg/m2	32	4	Not applicable	Not applicable	Not applicable	38
Skrivanek 2014	Placebo; None; Oral + Subcutaneous	HbA1c change	%	8.1	1.1	Not applicable	Not applicable	Not applicable	38
Skrivanek 2014	Sitagliptin; 100 mg daily;	BMI change	kg/m2	32	4	Not applicable	Not applicable	Not applicable	42

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Skrivanek 2014	Sitagliptin; 100 mg daily; Subcutaneous	HbA1c change	%	8.4	1.1	Not applicable	Not applicable	Not applicable	42
Softeland 2017	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	31.2	5.9	Not applicable	Not applicable	Not applicable	109
Softeland 2017	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.97	0.84	Not applicable	Not applicable	Not applicable	109
Softeland 2017	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	88.4	20.8	Not applicable	Not applicable	Not applicable	109
Softeland 2017	Empagliflozin ; 10-25 mg daily combined; Oral	BMI change	kg/m2	30.55	5.63	Not applicable	Not applicable	Not applicable	219
Softeland 2017	Empagliflozin ; 10-25 mg daily combined; Oral	HbA1c change	%	7.97	0.83	Not applicable	Not applicable	Not applicable	219
Softeland 2017	Empagliflozin ; 10-25 mg daily	Weight change	kg	86.39	20.07	Not applicable	Not applicable	Not applicable	219

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Softeland 2017	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	29.9	5.3	Not applicable	Not applicable	Not applicable	110
Softeland 2017	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	7.97	0.82	Not applicable	Not applicable	Not applicable	110
Softeland 2017	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	84.4	19.2	Not applicable	Not applicable	Not applicable	110
Softeland 2017	Placebo; None; Oral	BMI change	kg/m2	29.6	5.7	Not applicable	Not applicable	Not applicable	108
Softeland 2017	Placebo; None; Oral	HbA1c change	%	7.97	0.85	Not applicable	Not applicable	Not applicable	108
Softeland 2017	Placebo; None; Oral	Weight change	kg	82.3	19.8	Not applicable	Not applicable	Not applicable	108
Sone 2019	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	27	3	Not applicable	Not applicable	Not applicable	86
Sone 2019	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	8.8	0.7	Not applicable	Not applicable	Not applicable	86
Sone 2019	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	73.3	11.5	Not applicable	Not applicable	Not applicable	86
Sone 2019	Empagliflozin ; 10-25 mg	BMI change	kg/m2	26.9	3.15	Not applicable	Not applicable	Not applicable	176



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	daily combined; Subcutaneous								
Sone 2019	Empagliflozin ; 10-25 mg daily combined; Subcutaneous	HbA1c change	%	8.75	0.7	Not applicable	Not applicable	Not applicable	176
Sone 2019	Empagliflozin ; 10-25 mg daily combined; Subcutaneous	Weight change	kg	72.74	11.43	Not applicable	Not applicable	Not applicable	176
Sone 2019	Empagliflozin ; 25 mg daily; Oral	BMI change	kg/m2	26.8	3.3	Not applicable	Not applicable	Not applicable	90
Sone 2019	Empagliflozin ; 25 mg daily; Oral	HbA1c change	%	8.7	0.7	Not applicable	Not applicable	Not applicable	90
Sone 2019	Empagliflozin ; 25 mg daily; Oral	Weight change	kg	72.2	11.4	Not applicable	Not applicable	Not applicable	90
Sone 2019	Placebo; None; Oral	BMI change	kg/m2	26.9	3.4	Not applicable	Not applicable	Not applicable	90
Sone 2019	Placebo; None; Oral	HbA1c change	%	8.7	0.7	Not applicable	Not applicable	Not applicable	90

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Sone 2019	Placebo; None; Oral	Weight change	kg	74	11.3	Not applicable	Not applicable	Not applicable	90
Sridhar 2013	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	25.3	2.7	Not applicable	Not applicable	Not applicable	25
Sridhar 2013	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	6.8	0.4	Not applicable	Not applicable	Not applicable	25
Sridhar 2013	Pioglitazone; 30 mg daily; Oral	Weight change	kg	70.4	11.4	Not applicable	Not applicable	Not applicable	25
Sridhar 2013	Placebo; None; Oral	BMI change	kg/m2	25.1	3.2	Not applicable	Not applicable	Not applicable	25
Sridhar 2013	Placebo; None; Oral	HbA1c change	%	6.8	0.4	Not applicable	Not applicable	Not applicable	25
Sridhar 2013	Placebo; None; Oral	Weight change	kg	69.6	7.8	Not applicable	Not applicable	Not applicable	25
Strain 2013	Placebo; None; Oral	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	139
Strain 2013	Vildagliptin; 50-100 mg daily; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	139
Strojek 2011	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	29.8	5.6	Not applicable	Not applicable	Not applicable	151
Strojek 2011	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.07	0.79	Not applicable	Not applicable	Not applicable	151

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Strojek 2011	Dapagliflozin; 2.5 mg daily; Oral	BMI change	kg/m2	30	5.1	Not applicable	Not applicable	Not applicable	154
Strojek 2011	Dapagliflozin; 2.5 mg daily; Oral	HbA1c change	%	8.11	0.75	Not applicable	Not applicable	Not applicable	154
Strojek 2011	Dapagliflozin; 2.5-10 mg daily combined; Oral	BMI change	kg/m2	29.87	5.29	Not applicable	Not applicable	Not applicable	447
Strojek 2011	Dapagliflozin; 2.5-10 mg daily combined; Oral	HbA1c change	%	8.1	0.77	Not applicable	Not applicable	Not applicable	447
Strojek 2011	Dapagliflozin; 5 mg daily; Oral	BMI change	kg/m2	29.8	5.2	Not applicable	Not applicable	Not applicable	142
Strojek 2011	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.12	0.78	Not applicable	Not applicable	Not applicable	142
Strojek 2011	Placebo; None; Oral	BMI change	kg/m2	29.7	4.6	Not applicable	Not applicable	Not applicable	145
Strojek 2011	Placebo; None; Oral	HbA1c change	%	8.15	0.74	Not applicable	Not applicable	Not applicable	145
Su 2014	Placebo; None; Oral	HbA1c change	%	63.67	9.79	Not applicable	Not applicable	Not applicable	300

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Su 2014	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	65.14	10.32	Not applicable	Not applicable	Not applicable	300
Takahata 2013	Pioglitazone; 30 mg daily; Oral	BMI change	kg/m2	25.8	4.8	Not applicable	Not applicable	Not applicable	57
Takahata 2013	Pioglitazone; 30 mg daily; Oral	HbA1c change	%	7.4	0.61	Not applicable	Not applicable	Not applicable	57
Takahata 2013	Pioglitazone; 30 mg daily; Oral	Weight change	kg	67.4	15.7	Not applicable	Not applicable	Not applicable	57
Takahata 2013	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	24.6	3.3	Not applicable	Not applicable	Not applicable	58
Takahata 2013	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.47	0.66	Not applicable	Not applicable	Not applicable	58
Takahata 2013	Sitagliptin; 100 mg daily; Oral	Weight change	kg	66.4	12.7	Not applicable	Not applicable	Not applicable	58
Tan 2004	Glimepiride; 8 mg daily; Oral	BMI change	kg/m2	28.8	3.2	Not applicable	Not applicable	Not applicable	123
Tan 2004	Glimepiride; 8 mg daily; Oral	HbA1c change	%	8.45	1.02	Not applicable	Not applicable	Not applicable	99

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Tan 2004	Glimepiride; 8 mg daily; Oral	Weight change	kg	74.5	10.8	Not applicable	Not applicable	Not applicable	123
Tan 2004	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	29.3	3.3	Not applicable	Not applicable	Not applicable	121
Tan 2004	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.54	0.9	Not applicable	Not applicable	Not applicable	109
Tan 2004	Pioglitazone; 45 mg daily; Oral	Weight change	kg	74.2	10.5	Not applicable	Not applicable	Not applicable	121
Tanaka 2017	Alogliptin; 25 mg daily; Oral	HbA1c change	%	6.8	0.6	Not applicable	Not applicable	Not applicable	64
Tanaka 2017	Alogliptin; 25 mg daily; Oral	Weight change	kg	65.4	17.3	Not applicable	Not applicable	Not applicable	64
Tanaka 2017	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7	0.7	Not applicable	Not applicable	Not applicable	68
Tanaka 2017	Vildagliptin; 100 mg daily; Oral	Weight change	kg	62.2	14.9	Not applicable	Not applicable	Not applicable	68
Tanaka 2019	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	26.2	5.1	Not applicable	Not applicable	Not applicable	52

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Tanaka 2019	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.2	0.8	Not applicable	Not applicable	Not applicable	52
Tanaka 2019	Placebo; None; Oral	BMI change	kg/m2	26.9	5.5	Not applicable	Not applicable	Not applicable	53
Tanaka 2019	Placebo; None; Oral	HbA1c change	%	7.2	0.9	Not applicable	Not applicable	Not applicable	53
Taskinen 2011	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	29.85	4.84	Not applicable	Not applicable	Not applicable	523
Taskinen 2011	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.09	0.86	Not applicable	Not applicable	Not applicable	523
Taskinen 2011	Linagliptin; 5 mg daily; Oral	Weight change	kg	82.2	17.2	Not applicable	Not applicable	Not applicable	523
Taskinen 2011	Placebo; None; Oral	BMI change	kg/m2	30.05	5.01	Not applicable	Not applicable	Not applicable	177
Taskinen 2011	Placebo; None; Oral	HbA1c change	%	8.02	0.88	Not applicable	Not applicable	Not applicable	177
Taskinen 2011	Placebo; None; Oral	Weight change	kg	83.3	16.6	Not applicable	Not applicable	Not applicable	177
Terauchi 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	BMI change	kg/m2	26.2	4.3	Not applicable	Not applicable	Not applicable	260

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Terauchi 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	HbA1c change	%	8.08	0.5	Not applicable	Not applicable	Not applicable	260
Terauchi 2020	Insulin glargine/Lixis enatide; Titrated; Subcutaneous	Weight change	kg	70.72	14.08	Not applicable	Not applicable	Not applicable	260
Terauchi 2020	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	25.87	4.33	Not applicable	Not applicable	Not applicable	261
Terauchi 2020	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.01	0.45	Not applicable	Not applicable	Not applicable	261
Terauchi 2020	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	69.1	13.19	Not applicable	Not applicable	Not applicable	260

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Thrasher 2014	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	32	6.1	Not applicable	Not applicable	Not applicable	106
Thrasher 2014	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.68	1.05	Not applicable	Not applicable	Not applicable	98
Thrasher 2014	Linagliptin; 5 mg daily; Oral	Weight change	kg	95.8	21	Not applicable	Not applicable	Not applicable	106
Thrasher 2014	Placebo; None; Oral	BMI change	kg/m2	33.4	5.4	Not applicable	Not applicable	Not applicable	120
Thrasher 2014	Placebo; None; Oral	HbA1c change	%	8.78	1.18	Not applicable	Not applicable	Not applicable	110
Thrasher 2014	Placebo; None; Oral	Weight change	kg	99	20.2	Not applicable	Not applicable	Not applicable	120
Tinahones 2017 Study 1	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	31.3	5.4	Not applicable	Not applicable	Not applicable	122
Tinahones 2017 Study 1	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.04	0.96	Not applicable	Not applicable	Not applicable	122
Tinahones 2017 Study 1	Linagliptin; 5 mg daily; Oral	Weight change	kg	88.4	16.8	Not applicable	Not applicable	Not applicable	122
Tinahones 2017 Study 1	Placebo; None; Oral	BMI change	kg/m2	30.8	4.8	Not applicable	Not applicable	Not applicable	125
Tinahones 2017 Study 1	Placebo; None; Oral	HbA1c change	%	8.03	0.85	Not applicable	Not applicable	Not applicable	125



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Tinahones 2017 Study 1	Placebo; None; Oral	Weight change	kg	85.6	18	Not applicable	Not applicable	Not applicable	125
Tinahones 2017 Study 2	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	30.8	4.6	Not applicable	Not applicable	Not applicable	110
Tinahones 2017 Study 2	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.81	0.71	Not applicable	Not applicable	Not applicable	110
Tinahones 2017 Study 2	Linagliptin; 5 mg daily; Oral	Weight change	kg	85.7	16.7	Not applicable	Not applicable	Not applicable	110
Tinahones 2017 Study 2	Placebo; None; Oral	BMI change	kg/m2	32	5.3	Not applicable	Not applicable	Not applicable	110
Tinahones 2017 Study 2	Placebo; None; Oral	HbA1c change	%	7.88	0.9	Not applicable	Not applicable	Not applicable	110
Tinahones 2017 Study 2	Placebo; None; Oral	Weight change	kg	89.9	16.1	Not applicable	Not applicable	Not applicable	110
Tripathy 2013	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	33.6	1.9	Not applicable	Not applicable	Not applicable	11
Tripathy 2013	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	7	0.2	Not applicable	Not applicable	Not applicable	11
Tripathy 2013	Pioglitazone; 15 mg daily; Oral	Weight change	kg	93.7	4.9	Not applicable	Not applicable	Not applicable	11
Tripathy 2013	Placebo; None; Oral	BMI change	kg/m2	33.4	1.9	Not applicable	Not applicable	Not applicable	9

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Tripathy 2013	Placebo; None; Oral	HbA1c change	%	8	0.5	Not applicable	Not applicable	Not applicable	9
Tripathy 2013	Placebo; None; Oral	Weight change	kg	93.5	7.3	Not applicable	Not applicable	Not applicable	9
Umpierrez 2006	Glimepiride; 8 mg daily; Oral	BMI change	kg/m2	34.54	6.68	Not applicable	Not applicable	Not applicable	96
Umpierrez 2006	Glimepiride; 8 mg daily; Oral	HbA1c change	%	8.4	0.72	Not applicable	Not applicable	Not applicable	96
Umpierrez 2006	Pioglitazone; 45 mg daily; Oral	BMI change	kg/m2	33.81	6.62	Not applicable	Not applicable	Not applicable	107
Umpierrez 2006	Pioglitazone; 45 mg daily; Oral	HbA1c change	%	8.31	0.77	Not applicable	Not applicable	Not applicable	107
van der Meer 2009	Metformin type unspecified; 1000-2000 mg daily; Oral	BMI change	kg/m2	29.3	0.6	Not applicable	Not applicable	Not applicable	39
van der Meer 2009	Metformin type unspecified; 1000-2000 mg daily; Oral	HbA1c change	%	7	0.1	Not applicable	Not applicable	Not applicable	39

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
van der Meer 2009	Metformin type unspecified; 1000-2000 mg daily; Oral	Weight change	kg	92	2	Not applicable	Not applicable	Not applicable	39
van der Meer 2009	Pioglitazone; 15-30 mg daily; Oral	BMI change	kg/m2	28.2	0.5	Not applicable	Not applicable	Not applicable	39
van der Meer 2009	Pioglitazone; 15-30 mg daily; Oral	HbA1c change	%	7.1	0.2	Not applicable	Not applicable	Not applicable	39
van der Meer 2009	Pioglitazone; 15-30 mg daily; Oral	Weight change	kg	91	2	Not applicable	Not applicable	Not applicable	39
van Eyk 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30.4	3.8	Not applicable	Not applicable	Not applicable	22
van Eyk 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	22
van Eyk 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	81.9	11	Not applicable	Not applicable	Not applicable	22
van Eyk 2019	Placebo; None;	BMI change	kg/m2	28.6	4	Not applicable	Not applicable	Not applicable	25

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
van Eyk 2019	Placebo; None; Subcutaneous	HbA1c change	%	8.6	1.1	Not applicable	Not applicable	Not applicable	25
van Eyk 2019	Placebo; None; Subcutaneous	Weight change	kg	77.8	12.4	Not applicable	Not applicable	Not applicable	25
van Gaal 2014	Lixisenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	36.8	7.3	Not applicable	Not applicable	Not applicable	158
van Gaal 2014	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.16	0.89	Not applicable	Not applicable	Not applicable	158
van Gaal 2014	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	98.5	23.5	Not applicable	Not applicable	Not applicable	158
van Gaal 2014	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	36.8	6.3	Not applicable	Not applicable	Not applicable	161
van Gaal 2014	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	1	Not applicable	Not applicable	Not applicable	161

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
van Gaal 2014	Sitagliptin; 100 mg daily; Oral	Weight change	kg	100.6	23.8	Not applicable	Not applicable	Not applicable	161
Vanderheide n 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	40.7	6.7	Not applicable	Not applicable	Not applicable	35
Vanderheide n 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	9	1.2	Not applicable	Not applicable	Not applicable	35
Vanderheide n 2016A	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	114.6	21.4	Not applicable	Not applicable	Not applicable	35
Vanderheide n 2016A	Placebo; None; Subcutaneous	BMI change	kg/m2	41.6	10.4	Not applicable	Not applicable	Not applicable	36
Vanderheide n 2016A	Placebo; None; Subcutaneous	HbA1c change	%	8.9	1	Not applicable	Not applicable	Not applicable	36
Vanderheide n 2016A	Placebo; None; Subcutaneous	Weight change	kg	116.1	26.6	Not applicable	Not applicable	Not applicable	36

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Vianna 2018	Gliclazide; 60-120 mg daily; Oral	BMI change	kg/m2	33.8	6.7	Not applicable	Not applicable	Not applicable	21
Vianna 2018	Gliclazide; 60-120 mg daily; Oral	HbA1c change	%	7.32	0.6	Not applicable	Not applicable	Not applicable	21
Vianna 2018	Gliclazide; 60-120 mg daily; Oral	Weight change	kg	82.7	20.1	Not applicable	Not applicable	Not applicable	21
Vianna 2018	Vildagliptin; 100 mg daily; Oral	BMI change	kg/m2	31.7	5.8	Not applicable	Not applicable	Not applicable	21
Vianna 2018	Vildagliptin; 100 mg daily; Oral	HbA1c change	%	7.35	0.54	Not applicable	Not applicable	Not applicable	21
Vianna 2018	Vildagliptin; 100 mg daily; Oral	Weight change	kg	77.3	15.7	Not applicable	Not applicable	Not applicable	21
VilSBoll 2010	Placebo; None; Oral	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	319
VilSBoll 2010	Placebo; None; Oral	HbA1c change	%	8.6	0.9	Not applicable	Not applicable	Not applicable	319
VilSBoll 2010	Placebo; None; Oral	Weight change	kg	87.3	17.9	Not applicable	Not applicable	Not applicable	319
VilSBoll 2010	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	31	5	Not applicable	Not applicable	Not applicable	322

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Vilsboll 2010	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.7	0.9	Not applicable	Not applicable	Not applicable	322
Vilsboll 2010	Sitagliptin; 100 mg daily; Oral	Weight change	kg	86.5	18.6	Not applicable	Not applicable	Not applicable	322
Vilsboll 2019	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	BMI change	kg/m2	32.5	5.3	Not applicable	Not applicable	Not applicable	324
Vilsboll 2019	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	HbA1c change	%	9	1	Not applicable	Not applicable	Not applicable	324
Vilsboll 2019	Dapagliflozin + Saxagliptin; 10 mg + 5 mg daily; Oral	Weight change	kg	89.8	17.7	Not applicable	Not applicable	Not applicable	324
Vilsboll 2019	Insulin type unspecified; Titrated; Subcutaneous	BMI change	kg/m2	32	5.4	Not applicable	Not applicable	Not applicable	319
Vilsboll 2019	Insulin type unspecified; Titrated;	HbA1c change	%	9.1	1.1	Not applicable	Not applicable	Not applicable	319

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Vilsboll 2019	Insulin type unspecified; Titrated; Subcutaneous	Weight change	kg	89.4	18.4	Not applicable	Not applicable	Not applicable	319
Wagner 2019	Liraglutide; 1.2-1.8 mg daily; Subcutaneous	BMI change	kg/m2	34.07	6.56	Not applicable	Not applicable	Not applicable	12
Wagner 2019	Liraglutide; 1.2-1.8 mg daily; Subcutaneous	HbA1c change	%	8	0.46	Not applicable	Not applicable	Not applicable	12
Wagner 2019	Liraglutide; 1.2-1.8 mg daily; Subcutaneous	Weight change	kg	93.2	21	Not applicable	Not applicable	Not applicable	12
Wagner 2019	Placebo; None; Subcutaneous	BMI change	kg/m2	35.89	5.96	Not applicable	Not applicable	Not applicable	12
Wagner 2019	Placebo; None;	HbA1c change	%	8.4	0.79	Not applicable	Not applicable	Not applicable	12



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wagner 2019	Placebo; None; Subcutaneous	Weight change	kg	97.3	14.8	Not applicable	Not applicable	Not applicable	12
Wang 2016B	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	25.5	3.9	Not applicable	Not applicable	Not applicable	205
Wang 2016B	Linagliptin; 5 mg daily; Oral	HbA1c change	%	7.99	0.83	Not applicable	Not applicable	Not applicable	203
Wang 2016B	Linagliptin; 5 mg daily; Oral	Weight change	kg	68.1	12.9	Not applicable	Not applicable	Not applicable	205
Wang 2016B	Placebo; None; Oral	BMI change	kg/m2	25.8	4	Not applicable	Not applicable	Not applicable	100
Wang 2016B	Placebo; None; Oral	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	97
Wang 2016B	Placebo; None; Oral	Weight change	kg	68.5	12.7	Not applicable	Not applicable	Not applicable	100
Wang 2017	Placebo; None; Oral	BMI change	kg/m2	26	4.4	Not applicable	Not applicable	Not applicable	189
Wang 2017	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	180
Wang 2017	Placebo; None; Oral	Weight change	kg	69.3	12.8	Not applicable	Not applicable	Not applicable	189

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wang 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.9	4.6	Not applicable	Not applicable	Not applicable	191
Wang 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.1	0.8	Not applicable	Not applicable	Not applicable	185
Wang 2017	Sitagliptin; 100 mg daily; Oral	Weight change	kg	68.9	14.4	Not applicable	Not applicable	Not applicable	191
Wang 2019B	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	27	3.8	Not applicable	Not applicable	Not applicable	252
Wang 2019B	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.3	1.1	Not applicable	Not applicable	Not applicable	252
Wang 2019B	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	74.6	12.7	Not applicable	Not applicable	Not applicable	252
Wang 2019B	Dulaglutide; 0.75-1.5 mg weekly combined;	BMI change	kg/m2	26.8	3.8	Not applicable	Not applicable	Not applicable	505

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wang 2019B	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.4	1.2	Not applicable	Not applicable	Not applicable	505
Wang 2019B	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	74.1	12.9	Not applicable	Not applicable	Not applicable	505
Wang 2019B	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	26.6	3.7	Not applicable	Not applicable	Not applicable	253
Wang 2019B	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.5	1.2	Not applicable	Not applicable	Not applicable	253
Wang 2019B	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	73.6	13	Not applicable	Not applicable	Not applicable	253

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wang 2019B	Insulin type unspecified; Titrated; Subcutaneous	BMI change	kg/m2	26.7	3.5	Not applicable	Not applicable	Not applicable	250
Wang 2019B	Insulin type unspecified; Titrated; Subcutaneous	HbA1c change	%	8.3	1.1	Not applicable	Not applicable	Not applicable	250
Wang 2019B	Insulin type unspecified; Titrated; Subcutaneous	Weight change	kg	73.4	13.1	Not applicable	Not applicable	Not applicable	250
Wang 2020A	Exenatide; 20 mcg daily; Subcutaneous	BMI change	kg/m2	23.96	1.18	Not applicable	Not applicable	Not applicable	49
Wang 2020A	Exenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.53	1.07	Not applicable	Not applicable	Not applicable	49
Wang 2020A	Exenatide; 20 mcg daily; Subcutaneous	Weight change	kg	67.65	9.2	Not applicable	Not applicable	Not applicable	49
Wang 2020A	Insulin lispro; Titrated;	BMI change	kg/m2	23.5	1.24	Not applicable	Not applicable	Not applicable	46

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wang 2020A	Insulin lispro; Titrated; Subcutaneous	HbA1c change	%	8.47	0.92	Not applicable	Not applicable	Not applicable	46
Wang 2020A	Insulin lispro; Titrated; Subcutaneous	Weight change	kg	63.87	6.2	Not applicable	Not applicable	Not applicable	46
Wang 2020C	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	25.7	4.28	Not applicable	Not applicable	Not applicable	30
Wang 2020C	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.86	3.17	Not applicable	Not applicable	Not applicable	30
Wang 2020C	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.82	3.76	Not applicable	Not applicable	Not applicable	30
Wang 2020C	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.56	3.25	Not applicable	Not applicable	Not applicable	30
Wang 2022B	IDegLira; Titrated; Subcutaneous	BMI change	kg/m2	27	3.9	Not applicable	Not applicable	Not applicable	361

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wang 2022B	IDegLira; Titrated; Subcutaneous	HbA1c change	%	8.2	0.83	Not applicable	Not applicable	Not applicable	361
Wang 2022B	IDegLira; Titrated; Subcutaneous	Weight change	kg	74.8	14.3	Not applicable	Not applicable	Not applicable	361
Wang 2022B	Insulin degludec; Titrated; Subcutaneous	BMI change	kg/m2	26.5	3.6	Not applicable	Not applicable	Not applicable	179
Wang 2022B	Insulin degludec; Titrated; Subcutaneous	HbA1c change	%	8.31	0.84	Not applicable	Not applicable	Not applicable	179
Wang 2022B	Insulin degludec; Titrated; Subcutaneous	Weight change	kg	73.2	13.2	Not applicable	Not applicable	Not applicable	179
Wang 2022B	Liraglutide; Titrated; Subcutaneous	BMI change	kg/m2	26.5	3.6	Not applicable	Not applicable	Not applicable	180
Wang 2022B	Liraglutide; Titrated;	HbA1c change	%	8.21	0.77	Not applicable	Not applicable	Not applicable	180

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wang 2022B	Liraglutide; Titrated; Subcutaneous	Weight change	kg	73.8	13.3	Not applicable	Not applicable	Not applicable	180
Wang 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	25.8	3	Not applicable	Not applicable	Not applicable	144
Wang 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	144
Wang 2023	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	71.7	11.4	Not applicable	Not applicable	Not applicable	144
Wang 2023	Placebo; None; Subcutaneous	BMI change	kg/m2	26.1	3	Not applicable	Not applicable	Not applicable	147
Wang 2023	Placebo; None; Subcutaneous	HbA1c change	%	8.6	1	Not applicable	Not applicable	Not applicable	147

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wang 2023	Placebo; None; Subcutaneous	Weight change	kg	72	11.9	Not applicable	Not applicable	Not applicable	147
Watada 2019	IDegLira; Titrated; Subcutaneous	BMI change	kg/m2	27.3	3.1	Not applicable	Not applicable	Not applicable	105
Watada 2019	IDegLira; Titrated; Subcutaneous	HbA1c change	%	8.61	0.88	Not applicable	Not applicable	Not applicable	105
Watada 2019	IDegLira; Titrated; Subcutaneous	Weight change	kg	73.9	11.9	Not applicable	Not applicable	Not applicable	105
Watada 2019	Insulin degludec; Titrated; Subcutaneous	BMI change	kg/m2	28.1	4.4	Not applicable	Not applicable	Not applicable	105
Watada 2019	Insulin degludec; Titrated; Subcutaneous	HbA1c change	%	8.56	0.8	Not applicable	Not applicable	Not applicable	105
Watada 2019	Insulin degludec; Titrated;	Weight change	kg	75.5	14	Not applicable	Not applicable	Not applicable	105



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Webb 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	BMI change	kg/m2	35.7	7	Not applicable	Not applicable	Not applicable	38
Webb 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	HbA1c change	%	7.5	0.8	Not applicable	Not applicable	Not applicable	38
Webb 2020	Liraglutide; 0.6-1.8 mg daily; Subcutaneous	Weight change	kg	100.8	18.8	Not applicable	Not applicable	Not applicable	38
Webb 2020	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	34.9	5.3	Not applicable	Not applicable	Not applicable	38
Webb 2020	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.6	0.8	Not applicable	Not applicable	Not applicable	38
Webb 2020	Sitagliptin; 100 mg daily; Oral	Weight change	kg	100.7	21.1	Not applicable	Not applicable	Not applicable	38
Wilding 2012	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	33.4	5.1	Not applicable	Not applicable	Not applicable	194

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wilding 2012	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.57	0.82	Not applicable	Not applicable	Not applicable	194
Wilding 2012	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	94.5	16.8	Not applicable	Not applicable	Not applicable	194
Wilding 2012	Dapagliflozin; 2.5 mg daily; Oral	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	202
Wilding 2012	Dapagliflozin; 2.5 mg daily; Oral	HbA1c change	%	8.46	0.78	Not applicable	Not applicable	Not applicable	202
Wilding 2012	Dapagliflozin; 2.5 mg daily; Oral	Weight change	kg	93	16.7	Not applicable	Not applicable	Not applicable	202
Wilding 2012	Dapagliflozin; 2.5-10 mg daily combined; Oral	BMI change	kg/m2	33.13	5.13	Not applicable	Not applicable	Not applicable	607
Wilding 2012	Dapagliflozin; 2.5-10 mg daily combined; Oral	HbA1c change	%	8.55	0.83	Not applicable	Not applicable	Not applicable	607
Wilding 2012	Dapagliflozin; 2.5-10 mg daily	Weight change	kg	93.58	16.96	Not applicable	Not applicable	Not applicable	607

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Wilding 2012	Dapagliflozin; 5/10 mg daily; Oral	BMI change	kg/m2	33	5.3	Not applicable	Not applicable	Not applicable	211
Wilding 2012	Dapagliflozin; 5/10 mg daily; Oral	HbA1c change	%	8.62	0.89	Not applicable	Not applicable	Not applicable	211
Wilding 2012	Dapagliflozin; 5/10 mg daily; Oral	Weight change	kg	93.3	17.4	Not applicable	Not applicable	Not applicable	211
Wilding 2012	Placebo; None; Oral	BMI change	kg/m2	33.1	5.9	Not applicable	Not applicable	Not applicable	193
Wilding 2012	Placebo; None; Oral	HbA1c change	%	8.47	0.77	Not applicable	Not applicable	Not applicable	193
Wilding 2012	Placebo; None; Oral	Weight change	kg	94.5	19.8	Not applicable	Not applicable	Not applicable	193
Wilding 2013A	Canagliflozin; 100 mg daily; Oral	BMI change	kg/m2	33.3	6.3	Not applicable	Not applicable	Not applicable	157
Wilding 2013A	Canagliflozin; 100 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	157
Wilding 2013A	Canagliflozin; 100 mg daily; Oral	Weight change	kg	93.8	22.6	Not applicable	Not applicable	Not applicable	157
Wilding 2013A	Canagliflozin; 100-300 mg	BMI change	kg/m2	33.25	6.29	Not applicable	Not applicable	Not applicable	313

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	daily combined; Oral								
Wilding 2013A	Canagliflozin; 100-300 mg daily combined; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	313
Wilding 2013A	Canagliflozin; 100-300 mg daily combined; Oral	Weight change	kg	93.65	22.27	Not applicable	Not applicable	Not applicable	313
Wilding 2013A	Canagliflozin; 300 mg daily; Oral	BMI change	kg/m2	33.2	6.3	Not applicable	Not applicable	Not applicable	156
Wilding 2013A	Canagliflozin; 300 mg daily; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	156
Wilding 2013A	Canagliflozin; 300 mg daily; Oral	Weight change	kg	93.5	22	Not applicable	Not applicable	Not applicable	156
Wilding 2013A	Placebo; None; Oral	BMI change	kg/m2	32.7	6.8	Not applicable	Not applicable	Not applicable	156
Wilding 2013A	Placebo; None; Oral	HbA1c change	%	8.1	0.9	Not applicable	Not applicable	Not applicable	156
Wilding 2013A	Placebo; None; Oral	Weight change	kg	91.2	22.6	Not applicable	Not applicable	Not applicable	156

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wilding 2013B	Glipizide; 5-20 mg daily; Oral	BMI change	kg/m2	31	4.6	Not applicable	Not applicable	Not applicable	94
Wilding 2013B	Glipizide; 5-20 mg daily; Oral	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	94
Wilding 2013B	Placebo; None; Oral	BMI change	kg/m2	30.6	4.9	Not applicable	Not applicable	Not applicable	88
Wilding 2013B	Placebo; None; Oral	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	88
Wiviott 2019	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	32.1	6	Not applicable	Not applicable	Not applicable	8582
Wiviott 2019	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.3	1.2	Not applicable	Not applicable	Not applicable	8582
Wiviott 2019	Placebo; None; Oral	BMI change	kg/m2	32	6.1	Not applicable	Not applicable	Not applicable	8578
Wiviott 2019	Placebo; None; Oral	HbA1c change	%	8.3	1.2	Not applicable	Not applicable	Not applicable	8578
Wu 2014	Metformin type unspecified; 1500 mg daily; Oral	BMI change	kg/m2	25.6	5.8	Not applicable	Not applicable	Not applicable	47
Wu 2014	Metformin type unspecified;	HbA1c change	%	7.2	2.4	Not applicable	Not applicable	Not applicable	47

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	1500 mg daily; Oral								
Wu 2014	Pioglitazone; 15 mg daily; Oral	BMI change	kg/m2	25.4	5.7	Not applicable	Not applicable	Not applicable	46
Wu 2014	Pioglitazone; 15 mg daily; Oral	HbA1c change	%	7.1	2.5	Not applicable	Not applicable	Not applicable	46
Wysham 2014 26 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	34	5	Not applicable	Not applicable	Not applicable	276
Wysham 2014 26 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	276
Wysham 2014 26 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	97	19	Not applicable	Not applicable	Not applicable	276
Wysham 2014 26 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	33	5.52	Not applicable	Not applicable	Not applicable	559

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wysham 2014 26 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	4.7	6.71	Not applicable	Not applicable	Not applicable	559
Wysham 2014 26 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	96	20.49	Not applicable	Not applicable	Not applicable	559
Wysham 2014 26 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	280
Wysham 2014 26 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.2	Not applicable	Not applicable	Not applicable	280
Wysham 2014 26 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	96	21	Not applicable	Not applicable	Not applicable	280

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wysham 2014 26 weeks	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	279
Wysham 2014 26 weeks	Exenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	279
Wysham 2014 26 weeks	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	96	20	Not applicable	Not applicable	Not applicable	279
Wysham 2014 26 weeks	Placebo; None; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	141
Wysham 2014 26 weeks	Placebo; None; Subcutaneous	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	141
Wysham 2014 26 weeks	Placebo; None; Subcutaneous	Weight change	kg	94	19	Not applicable	Not applicable	Not applicable	141



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wysham 2014 52 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	34	5	Not applicable	Not applicable	Not applicable	276
Wysham 2014 52 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	276
Wysham 2014 52 weeks	Dulaglutide; 0.75 mg weekly; Subcutaneous	Weight change	kg	97	19	Not applicable	Not applicable	Not applicable	276
Wysham 2014 52 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	BMI change	kg/m2	33	5.52	Not applicable	Not applicable	Not applicable	559
Wysham 2014 52 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	141

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Wysham 2014 52 weeks	Dulaglutide; 0.75-1.5 mg weekly combined; Subcutaneous	Weight change	kg	94	19	Not applicable	Not applicable	Not applicable	141
Wysham 2014 52 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	BMI change	kg/m2	33	6	Not applicable	Not applicable	Not applicable	280
Wysham 2014 52 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	HbA1c change	%	8.1	1.2	Not applicable	Not applicable	Not applicable	280
Wysham 2014 52 weeks	Dulaglutide; 1.5 mg weekly; Subcutaneous	Weight change	kg	96	21	Not applicable	Not applicable	Not applicable	280
Wysham 2014 52 weeks	Exenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	33	5	Not applicable	Not applicable	Not applicable	279
Wysham 2014 52 weeks	Exenatide; 10-20 mcg daily;	HbA1c change	%	8.1	1.3	Not applicable	Not applicable	Not applicable	279

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Wysham 2014 52 weeks	Exenatide; 10-20 mcg daily; Subcutaneous	Weight change	kg	96	20	Not applicable	Not applicable	Not applicable	279
Xiao 2015	Glipizide; 5-10 mg daily; Oral	BMI change	kg/m2	26.52	1.29	Not applicable	Not applicable	Not applicable	34
Xiao 2015	Glipizide; 5-10 mg daily; Oral	HbA1c change	%	8.73	0.8	Not applicable	Not applicable	Not applicable	34
Xiao 2015	Pioglitazone; 15-45 mg daily; Oral	BMI change	kg/m2	26.59	1.23	Not applicable	Not applicable	Not applicable	36
Xiao 2015	Pioglitazone; 15-45 mg daily; Oral	HbA1c change	%	8.65	0.75	Not applicable	Not applicable	Not applicable	36
Xiao 2016	Glimepiride; 4 mg daily; Oral	BMI change	kg/m2	27.92	3.87	Not applicable	Not applicable	Not applicable	18
Xiao 2016	Glimepiride; 4 mg daily; Oral	HbA1c change	%	7.27	1.15	Not applicable	Not applicable	Not applicable	18
Xiao 2016	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	28.34	3.81	Not applicable	Not applicable	Not applicable	23

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Xiao 2016	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.32	1.01	Not applicable	Not applicable	Not applicable	23
Xu 2017	Gliclazide; 30-120 mg daily titrated; Oral	HbA1c change	%	7.78	0.8	Not applicable	Not applicable	Not applicable	550
Xu 2017	Gliclazide; 30-120 mg daily titrated; Oral	Weight change	kg	71	12.6	Not applicable	Not applicable	Not applicable	550
Xu 2017	Glimepiride; 1-6 mg daily; Oral	HbA1c change	%	7.68	0.74	Not applicable	Not applicable	Not applicable	549
Xu 2017	Glimepiride; 1-6 mg daily; Oral	Weight change	kg	71.1	12.1	Not applicable	Not applicable	Not applicable	549
Yabe 2020	Dulaglutide; 0.75 mg weekly; Subcutaneous	BMI change	kg/m2	26	4	Not applicable	Not applicable	Not applicable	65
Yabe 2020	Dulaglutide; 0.75 mg weekly; Subcutaneous	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	65
Yabe 2020	Dulaglutide; 0.75 mg	Weight change	kg	71.2	14.3	Not applicable	Not applicable	Not applicable	65

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	weekly; Subcutaneous								
Yabe 2020	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	26.3	5.2	Not applicable	Not applicable	Not applicable	130
Yabe 2020	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8.4	1	Not applicable	Not applicable	Not applicable	130
Yabe 2020	Semaglutide; 14 mg daily; Oral	Weight change	kg	72.6	15.2	Not applicable	Not applicable	Not applicable	130
Yabe 2020	Semaglutide; 3 mg daily; Oral	BMI change	kg/m2	25.8	4.5	Not applicable	Not applicable	Not applicable	131
Yabe 2020	Semaglutide; 3 mg daily; Oral	HbA1c change	%	8.2	0.9	Not applicable	Not applicable	Not applicable	131
Yabe 2020	Semaglutide; 3 mg daily; Oral	Weight change	kg	71.5	16	Not applicable	Not applicable	Not applicable	131
Yabe 2020	Semaglutide; 3-14 mg daily combined; Oral	BMI change	kg/m2	26.3	4.91	Not applicable	Not applicable	Not applicable	393
Yabe 2020	Semaglutide; 3-14 mg daily combined; Oral	HbA1c change	%	8.3	0.94	Not applicable	Not applicable	Not applicable	393

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yabe 2020	Semaglutide; 3-14 mg daily combined; Oral	Weight change	kg	72.27	15.85	Not applicable	Not applicable	Not applicable	393
Yabe 2020	Semaglutide; 7 mg daily; Oral	BMI change	kg/m2	26.8	5	Not applicable	Not applicable	Not applicable	132
Yabe 2020	Semaglutide; 7 mg daily; Oral	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	132
Yabe 2020	Semaglutide; 7 mg daily; Oral	Weight change	kg	72.7	16.4	Not applicable	Not applicable	Not applicable	132
Yabe 2023	Empagliflozin ; 10 mg daily; Oral	BMI change	kg/m2	25.7	3.3	Not applicable	Not applicable	Not applicable	64
Yabe 2023	Empagliflozin ; 10 mg daily; Oral	HbA1c change	%	7.6	0.5	Not applicable	Not applicable	Not applicable	64
Yabe 2023	Empagliflozin ; 10 mg daily; Oral	Weight change	kg	68.26	10.08	1.25	Not applicable	Not applicable	65
Yabe 2023	Placebo; None; Oral	BMI change	kg/m2	25.4	2.6	Not applicable	Not applicable	Not applicable	63
Yabe 2023	Placebo; None; Oral	HbA1c change	%	7.6	0.5	Not applicable	Not applicable	Not applicable	63
Yabe 2023	Placebo; None; Oral	Weight change	kg	66.9	8.16	1.02	Not applicable	Not applicable	64

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yan 2019	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	29.6	3.5	Not applicable	Not applicable	Not applicable	24
Yan 2019	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	7.7	0.9	Not applicable	Not applicable	Not applicable	24
Yan 2019	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	85.6	14.2	Not applicable	Not applicable	Not applicable	24
Yan 2019	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	30.1	3.3	Not applicable	Not applicable	Not applicable	24
Yan 2019	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	7.8	1.4	Not applicable	Not applicable	Not applicable	24
Yan 2019	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	86.6	12.9	Not applicable	Not applicable	Not applicable	24

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yan 2019	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	29.7	2.8	Not applicable	Not applicable	Not applicable	27
Yan 2019	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.6	0.9	Not applicable	Not applicable	Not applicable	27
Yan 2019	Sitagliptin; 100 mg daily; Oral	Weight change	kg	88.2	13.6	Not applicable	Not applicable	Not applicable	27
Yang 2011	Placebo; None; Oral	BMI change	kg/m2	26.1	3.5	Not applicable	Not applicable	Not applicable	287
Yang 2011	Placebo; None; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	287
Yang 2011	Placebo; None; Oral	Weight change	kg	69	11.9	Not applicable	Not applicable	Not applicable	287
Yang 2011	Saxagliptin; 5 mg daily; Oral	BMI change	kg/m2	26.3	3.6	Not applicable	Not applicable	Not applicable	283
Yang 2011	Saxagliptin; 5 mg daily; Oral	HbA1c change	%	7.9	0.8	Not applicable	Not applicable	Not applicable	283
Yang 2011	Saxagliptin; 5 mg daily; Oral	Weight change	kg	68.9	12.5	Not applicable	Not applicable	Not applicable	283
Yang 2012	Placebo; None; Oral	BMI change	kg/m2	25.3	3.6	Not applicable	Not applicable	Not applicable	194
Yang 2012	Placebo; None; Oral	HbA1c change	%	8.6	0.9	Not applicable	Not applicable	Not applicable	194



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yang 2012	Placebo; None; Oral	Weight change	kg	68.9	13.3	Not applicable	Not applicable	Not applicable	194
Yang 2012	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	25.3	3.1	Not applicable	Not applicable	Not applicable	191
Yang 2012	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.5	0.9	Not applicable	Not applicable	Not applicable	191
Yang 2012	Sitagliptin; 100 mg daily; Oral	Weight change	kg	67.9	10.7	Not applicable	Not applicable	Not applicable	191
Yang 2015	Placebo; None; Oral	BMI change	kg/m2	25	2.8	Not applicable	Not applicable	Not applicable	136
Yang 2015	Placebo; None; Oral	HbA1c change	%	8.7	1	Not applicable	Not applicable	Not applicable	136
Yang 2015	Placebo; None; Oral	Weight change	kg	68.8	11.7	Not applicable	Not applicable	Not applicable	136
Yang 2015	Vildagliptin; 50 mg daily; Oral	BMI change	kg/m2	24.8	3	Not applicable	Not applicable	Not applicable	143
Yang 2015	Vildagliptin; 50 mg daily; Oral	HbA1c change	%	8.6	0.9	Not applicable	Not applicable	Not applicable	143
Yang 2015	Vildagliptin; 50 mg daily; Oral	Weight change	kg	67.4	11.1	Not applicable	Not applicable	Not applicable	143

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yang 2016	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	26.2	3.5	Not applicable	Not applicable	Not applicable	152
Yang 2016	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.17	0.84	Not applicable	Not applicable	Not applicable	152
Yang 2016	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	71.4	12	Not applicable	Not applicable	Not applicable	152
Yang 2016	Dapagliflozin; 5 mg daily; Oral	BMI change	kg/m2	26.4	3.5	Not applicable	Not applicable	Not applicable	147
Yang 2016	Dapagliflozin; 5 mg daily; Oral	HbA1c change	%	8.09	0.72	Not applicable	Not applicable	Not applicable	147
Yang 2016	Dapagliflozin; 5 mg daily; Oral	Weight change	kg	70.8	12.2	Not applicable	Not applicable	Not applicable	147
Yang 2016	Dapagliflozin; 5-10 mg daily combined; Oral	BMI change	kg/m2	26.3	3.5	Not applicable	Not applicable	Not applicable	299
Yang 2016	Dapagliflozin; 5-10 mg daily combined; Oral	HbA1c change	%	8.13	0.78	Not applicable	Not applicable	Not applicable	299
Yang 2016	Dapagliflozin; 5-10 mg daily	Weight change	kg	71.11	12.08	Not applicable	Not applicable	Not applicable	299

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Yang 2016	Placebo; None; Oral	BMI change	kg/m2	25.7	2.9	Not applicable	Not applicable	Not applicable	145
Yang 2016	Placebo; None; Oral	HbA1c change	%	8.13	0.85	Not applicable	Not applicable	Not applicable	145
Yang 2016	Placebo; None; Oral	Weight change	kg	70.9	11.4	Not applicable	Not applicable	Not applicable	145
Yang 2018A	Dapagliflozin; 10 mg daily; Oral	BMI change	kg/m2	26.4	3.8	Not applicable	Not applicable	Not applicable	139
Yang 2018A	Dapagliflozin; 10 mg daily; Oral	HbA1c change	%	8.52	0.76	Not applicable	Not applicable	Not applicable	139
Yang 2018A	Dapagliflozin; 10 mg daily; Oral	Weight change	kg	71.1	12	Not applicable	Not applicable	Not applicable	139
Yang 2018A	Placebo; None; Oral	BMI change	kg/m2	26.7	3.3	Not applicable	Not applicable	Not applicable	133
Yang 2018A	Placebo; None; Oral	HbA1c change	%	8.58	0.81	Not applicable	Not applicable	Not applicable	133
Yang 2018A	Placebo; None; Oral	Weight change	kg	72.4	13.1	Not applicable	Not applicable	Not applicable	133
Yang 2018B	Lixisenatide; 10-20 mcg daily; Subcutaneous	BMI change	kg/m2	27.5	4.39	Not applicable	Not applicable	Not applicable	224

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yang 2018B	Lixisenatide; 10-20 mcg daily; Subcutaneous	HbA1c change	%	7.9	0.66	Not applicable	Not applicable	Not applicable	224
Yang 2018B	Placebo; None; Subcutaneous	BMI change	kg/m2	27.9	4.48	Not applicable	Not applicable	Not applicable	224
Yang 2018B	Placebo; None; Subcutaneous	HbA1c change	%	7.9	0.7	Not applicable	Not applicable	Not applicable	224
Yang 2021	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	25.79	3.81	Not applicable	Not applicable	Not applicable	104
Yang 2021	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.49	0.74	Not applicable	Not applicable	Not applicable	101
Yang 2021	Placebo; None; Oral	BMI change	kg/m2	25.34	3.07	Not applicable	Not applicable	Not applicable	102
Yang 2021	Placebo; None; Oral	HbA1c change	%	8.51	0.83	Not applicable	Not applicable	Not applicable	101
Yang 2022	Insulin glargine/Lixisenatide; Titrated; Subcutaneous	BMI change	kg/m2	26.1	3.63	Not applicable	Not applicable	Not applicable	351

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yang 2022	Insulin glargine/Lixisenatide; Titrated; Subcutaneous	HbA1c change	%	8.4	0.9	Not applicable	Not applicable	Not applicable	351
Yang 2022	Insulin glargine/Lixisenatide; Titrated; Subcutaneous	Weight change	kg	70.6	12.6	Not applicable	Not applicable	Not applicable	348
Yang 2022	Insulin glargine; Titrated; Subcutaneous	BMI change	kg/m2	25.92	3.92	Not applicable	Not applicable	Not applicable	350
Yang 2022	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.3	0.8	Not applicable	Not applicable	Not applicable	350
Yang 2022	Insulin glargine; Titrated; Subcutaneous	Weight change	kg	70.2	13.6	Not applicable	Not applicable	Not applicable	349
Yang 2022	Lixisenatide; 20 mcg daily;	BMI change	kg/m2	26.12	3.38	Not applicable	Not applicable	Not applicable	177

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Yang 2022	Lixisenatide; 20 mcg daily; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	177
Yang 2022	Lixisenatide; 20 mcg daily; Subcutaneous	Weight change	kg	71	11.8	Not applicable	Not applicable	Not applicable	175
Yki-Järvinen 2013	Linagliptin; 5 mg daily; Oral	BMI change	kg/m2	30.8	5.4	Not applicable	Not applicable	Not applicable	631
Yki-Järvinen 2013	Linagliptin; 5 mg daily; Oral	HbA1c change	%	8.31	0.85	Not applicable	Not applicable	Not applicable	618
Yki-Järvinen 2013	Placebo; None; Oral	BMI change	kg/m2	31.2	4.9	Not applicable	Not applicable	Not applicable	630
Yki-Järvinen 2013	Placebo; None; Oral	HbA1c change	%	8.29	0.85	Not applicable	Not applicable	Not applicable	617
Yokoyama 2014	Liraglutide; 0.9 mg daily; Subcutaneous	BMI change	kg/m2	26	3.33	Not applicable	Not applicable	Not applicable	50
Yokoyama 2014	Liraglutide; 0.9 mg daily; Subcutaneous	HbA1c change	%	7.69	0.89	Not applicable	Not applicable	Not applicable	50

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Yokoyama 2014	Liraglutide; 0.9 mg daily; Subcutaneous	Weight change	kg	69.35	12.68	Not applicable	Not applicable	Not applicable	50
Yokoyama 2014	Sitagliptin; 50-100 mg daily; Oral	BMI change	kg/m2	25.75	3.42	Not applicable	Not applicable	Not applicable	49
Yokoyama 2014	Sitagliptin; 50-100 mg daily; Oral	HbA1c change	%	7.92	1.02	Not applicable	Not applicable	Not applicable	49
Yokoyama 2014	Sitagliptin; 50-100 mg daily; Oral	Weight change	kg	67.86	12.52	Not applicable	Not applicable	Not applicable	49
Yuan 2022	Insulin glargine/Lixisenatide; Titrated; Subcutaneous	BMI change	kg/m2	25.2	2.7	Not applicable	Not applicable	Not applicable	212
Yuan 2022	Insulin glargine/Lixisenatide; Titrated; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	212
Yuan 2022	Insulin glargine; Titrated;	BMI change	kg/m2	25.3	3	Not applicable	Not applicable	Not applicable	214

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	Subcutaneous								
Yuan 2022	Insulin glargine; Titrated; Subcutaneous	HbA1c change	%	8.3	0.9	Not applicable	Not applicable	Not applicable	214
Zang 2016	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	27.3	3.4	Not applicable	Not applicable	Not applicable	183
Zang 2016	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.14	0.83	Not applicable	Not applicable	Not applicable	183
Zang 2016	Liraglutide; 1.8 mg daily; Subcutaneous	Weight change	kg	76.2	13.6	Not applicable	Not applicable	Not applicable	183
Zang 2016	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	27.2	4	Not applicable	Not applicable	Not applicable	184
Zang 2016	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	8.11	0.78	Not applicable	Not applicable	Not applicable	184
Zang 2016	Sitagliptin; 100 mg daily; Oral	Weight change	kg	75.8	15.1	Not applicable	Not applicable	Not applicable	



Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zhang 2020B	Exenatide; 5-10 micrograms twice daily; Subcutaneous	BMI change	kg/m2	23.64	2.86	Not applicable	Not applicable	Not applicable	27
Zhang 2020B	Exenatide; 5-10 micrograms twice daily; Subcutaneous	HbA1c change	%	8.67	1.03	Not applicable	Not applicable	Not applicable	27
Zhang 2020B	Exenatide; 5-10 micrograms twice daily; Subcutaneous	Weight change	kg	68.68	11.95	Not applicable	Not applicable	Not applicable	27
Zhang 2020B	Insulin type unspecified; Titrated; Subcutaneous	BMI change	kg/m2	24.36	2.52	Not applicable	Not applicable	Not applicable	32
Zhang 2020B	Insulin type unspecified; Titrated; Subcutaneous	HbA1c change	%	8.32	0.96	Not applicable	Not applicable	Not applicable	32

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zhang 2020B	Insulin type unspecified; Titrated; Subcutaneous	Weight change	kg	66.3	11.42	Not applicable	Not applicable	Not applicable	32
Zhao 2017	Placebo; None; Oral	BMI change	kg/m2	27.8	2.6	Not applicable	Not applicable	Not applicable	50
Zhao 2017	Placebo; None; Oral	HbA1c change	%	7.6	0.7	Not applicable	Not applicable	Not applicable	50
Zhao 2017	Placebo; None; Oral	Weight change	kg	84.7	14.6	Not applicable	Not applicable	Not applicable	50
Zhao 2017	Sitagliptin; 100 mg daily; Oral	BMI change	kg/m2	28.2	2.9	Not applicable	Not applicable	Not applicable	50
Zhao 2017	Sitagliptin; 100 mg daily; Oral	HbA1c change	%	7.6	0.9	Not applicable	Not applicable	Not applicable	50
Zhao 2017	Sitagliptin; 100 mg daily; Oral	Weight change	kg	85.6	16.4	Not applicable	Not applicable	Not applicable	50
Zinman 2009	Liraglutide; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	33.2	5.4	Not applicable	Not applicable	Not applicable	178
Zinman 2009	Liraglutide; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.5	1.2	Not applicable	Not applicable	Not applicable	178

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zinman 2009	Liraglutide; 1.2-1.8 mg daily combined; Subcutaneous	BMI change	kg/m2	33.35	5.25	Not applicable	Not applicable	Not applicable	356
Zinman 2009	Liraglutide; 1.2-1.8 mg daily combined; Subcutaneous	HbA1c change	%	8.55	1.2	Not applicable	Not applicable	Not applicable	356
Zinman 2009	Liraglutide; 1.8 mg daily; Subcutaneous	BMI change	kg/m2	33.5	5.1	Not applicable	Not applicable	Not applicable	178
Zinman 2009	Liraglutide; 1.8 mg daily; Subcutaneous	HbA1c change	%	8.6	1.2	Not applicable	Not applicable	Not applicable	178
Zinman 2009	Placebo; 1.2 mg daily; Subcutaneous	BMI change	kg/m2	33.9	5.2	Not applicable	Not applicable	Not applicable	177
Zinman 2009	Placebo; 1.2 mg daily; Subcutaneous	HbA1c change	%	8.4	1.2	Not applicable	Not applicable	Not applicable	177

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zinman 2019A	Placebo; 1 mg weekly; Subcutaneous	BMI change	kg/m2	32.7	6.9	Not applicable	Not applicable	Not applicable	151
Zinman 2019A	Placebo; 1 mg weekly; Subcutaneous	HbA1c change	%	8.1	8	Not applicable	Not applicable	Not applicable	151
Zinman 2019A	Placebo; 1 mg weekly; Subcutaneous	Weight change	kg	93.8	22.3	Not applicable	Not applicable	Not applicable	151
Zinman 2019A	Semaglutide; 1 mg weekly; Subcutaneous	BMI change	kg/m2	31.1	6.2	Not applicable	Not applicable	Not applicable	151
Zinman 2019A	Semaglutide; 1 mg weekly; Subcutaneous	HbA1c change	%	8	0.8	Not applicable	Not applicable	Not applicable	151
Zinman 2019A	Semaglutide; 1 mg weekly; Subcutaneous	Weight change	kg	89.6	19.5	Not applicable	Not applicable	Not applicable	151
Zinman 2019B	Placebo; None; Oral	BMI change	kg/m2	31	6.5	Not applicable	Not applicable	Not applicable	184
Zinman 2019B	Placebo; None; Oral	HbA1c change	%	8.2	0.7	Not applicable	Not applicable	Not applicable	184

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
Zinman 2019B	Placebo; None; Oral	Weight change	kg	86	21.4	Not applicable	Not applicable	Not applicable	184
Zinman 2019B	Semaglutide; 14 mg daily; Oral	BMI change	kg/m2	30.8	6.3	Not applicable	Not applicable	Not applicable	181
Zinman 2019B	Semaglutide; 14 mg daily; Oral	HbA1c change	%	8.2	0.7	8	Not applicable	Not applicable	181
Zinman 2019B	Semaglutide; 14 mg daily; Oral	Weight change	kg	84.6	21	Not applicable	Not applicable	Not applicable	181
Zinman 2019B	Semaglutide; 3 mg daily; Oral	BMI change	kg/m2	31	6.8	Not applicable	Not applicable	Not applicable	184
Zinman 2019B	Semaglutide; 3 mg daily; Oral	HbA1c change	%	8.2	0.7	Not applicable	Not applicable	Not applicable	184
Zinman 2019B	Semaglutide; 3 mg daily; Oral	Weight change	kg	85.9	21.5	Not applicable	Not applicable	Not applicable	184
Zinman 2019B	Semaglutide; 3-14 mg once daily combined; Oral	BMI change	kg/m2	30.97	6.7	Not applicable	Not applicable	Not applicable	547
Zinman 2019B	Semaglutide; 3-14 mg once daily	HbA1c change	%	8.2	0.7	Not applicable	Not applicable	Not applicable	547

Study name	Drug details	Outcome	Units	Mean	SD	SE	2.5% Confidence interval	97.5% Confidence interval	n
	combined; Oral								
Zinman 2019B	Semaglutide; 3-14 mg once daily combined; Oral	Weight change	kg	85.87	22.05	Not applicable	Not applicable	Not applicable	547
Zinman 2019B	Semaglutide; 7 mg daily; Oral	BMI change	kg/m2	31.1	7	Not applicable	Not applicable	Not applicable	182
Zinman 2019B	Semaglutide; 7 mg daily; Oral	HbA1c change	%	8.2	0.7	Not applicable	Not applicable	Not applicable	182
Zinman 2019B	Semaglutide; 7 mg daily; Oral	Weight change	kg	87.1	23.6	Not applicable	Not applicable	Not applicable	182