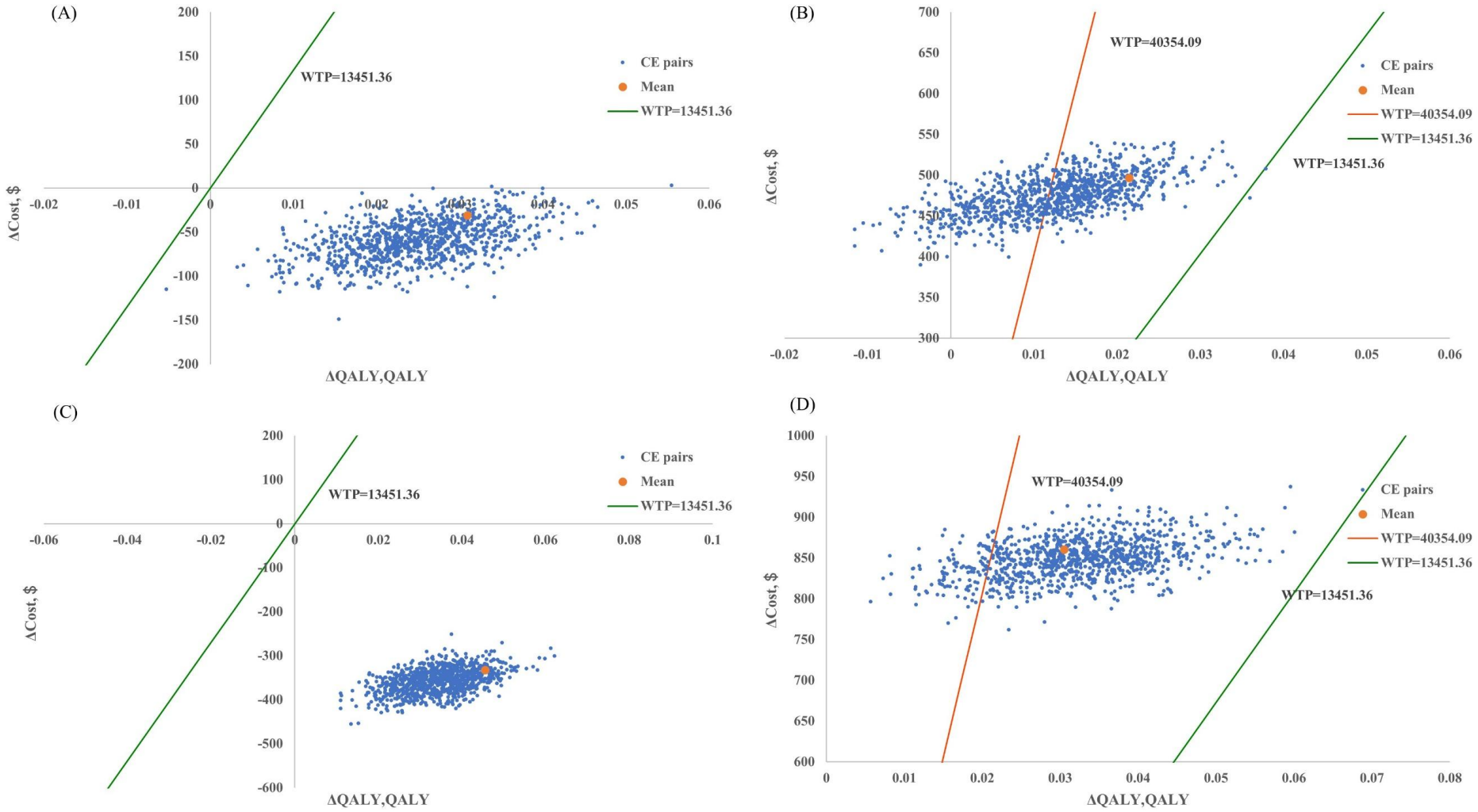
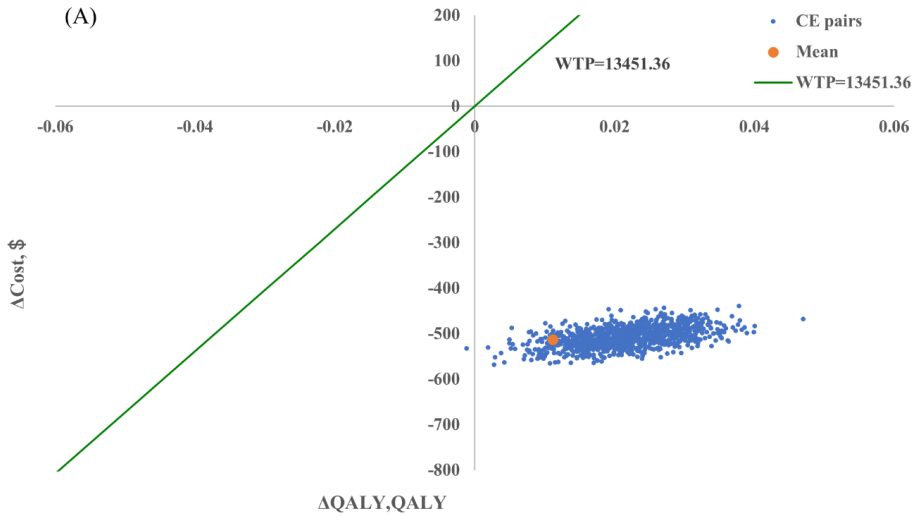
Supplementary Table 1. Cost of drug treatment

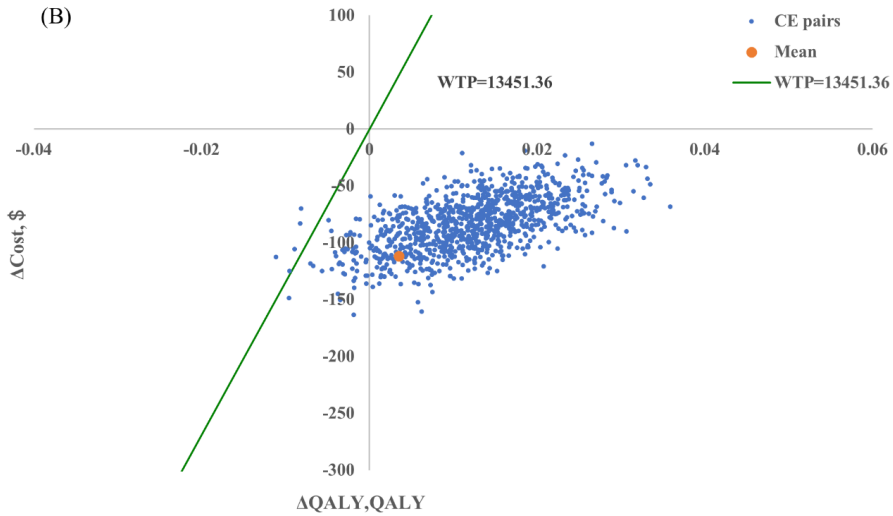
Trials	Group	Packages	Price, $	Dosage, U/weeks	Needle cost, $/years	Annual total cost, $
ONWARDS 1	Insulin Icodec	1050 U	53.43	214	15.7	582.01
	Insulin Glargine U100	300 U	10.11	222	109.89	471.74
ONWARDS 2	Insulin Icodec	1050 U	53.43	268	15.7	724.91
	Insulin Degludec	300 U	11.12	244	109.89	580.23
ONWARDS 3	Insulin Icodec	1050 U	53.43	204	15.7	555.55
	Insulin Degludec	300 U	11.12	187	109.89	470.36
ONWARDS 4	Insulin Icodec	1050 U	53.43	305	15.7	822.83
	Insulin Glargine U100	300 U	10.11	279	109.89	564.65
ONWARDS 5	Insulin Icodec	1050 U	53.43	227	15.7	616.41
	Once-Daily Basal Insulin	300 U	9.95	185	109.89	428.93

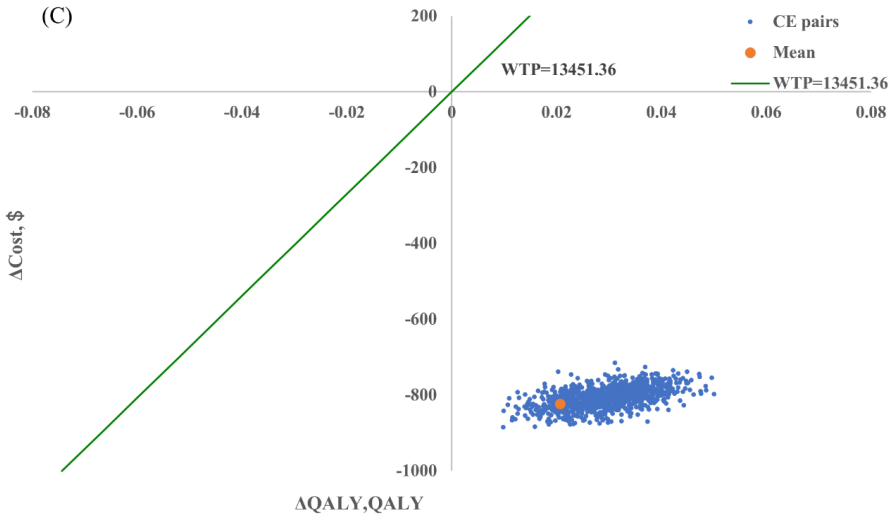
Note: All costs were expressed in 2024 US dollars (1 USD = 7.1217 CNY)

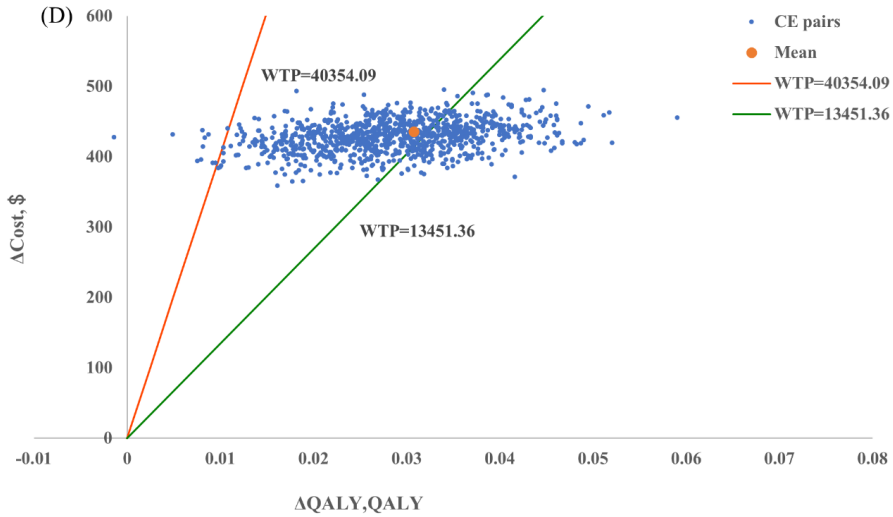

(A)
WTP=13451.36
CE pairs
Mean
WTP=13451.36
ΔCost, $
ΔQALY,QALY
(B)
WTP=40354.09
WTP=13451.36
CE pairs
Mean
WTP=40354.09
WTP=13451.36
ΔCost, $
ΔQALY,QALY
(C)
WTP=13451.36
CE pairs
Mean
WTP=13451.36
ΔCost, $
ΔQALY,QALY
(D)
WTP=40354.09
WTP=13451.36
CE pairs
Mean
WTP=40354.09
WTP=13451.36
ΔCost, $
ΔQALY,QALY

Supplementary Figure 1. Cost-effectiveness scatter plots comparing once-weekly insulin icodec versus daily basal insulins under a 10% price reduction scenario for daily regimens, with a $150 annual willingness-to-pay for weekly administration. Note: QALY: Quality-Adjusted Life Year; WTP: willingness-to-pay; △: represents the difference between the two group; (A): Icodec vs Glargine U100 in insulin-naïve T2DM patients; (B): Icodec vs Degludec in basal insulin treated T2DM patients; (C): Icodec vs Degludec in insulin-naïve T2DM patients; (D): Icodec vs Basal Insulin in insulin-naïve T2DM patients.


(A)
CE pairs
Mean
WTP=13451.36
WTP=13451.36
ΔCost, $
ΔQALY,QALY


(B)
CE pairs
Mean
WTP=13451.36
WTP=13451.36
ΔCost, $
ΔQALY,QALY


(C)
CE pairs
Mean
WTP=13451.36
WTP=13451.36
ΔCost, $
ΔQALY,QALY


(D)
CE pairs
Mean
WTP=40354.09
WTP=13451.36
WTP=40354.09
WTP=13451.36
ΔCost, $
ΔQALY,QALY

Supplementary Figure 2. Cost-effectiveness scatter plots comparing once-weekly insulin icodec versus daily basal insulins under an extended 30-year time horizon scenario for daily regimens, with a $150 annual willingness-to-pay for weekly administration. Note: QALY: Quality-Adjusted Life Year; WTP: willingness-to-pay; △: represents the difference between the two group; (A): Icodec vs Glargine U100 in insulin-naïve T2DM patients; (B): Icodec vs Degludec in basal insulin treated T2DM patients; (C): Icodec vs Degludec in insulin-naïve T2DM patients; (D): Icodec vs Basal Insulin in insulin-naïve T2DM patients.

CHEERS 2022 Checklist

	Item	Guidance for Reporting	Reported insection
TITLE			
Title	1	Identify the study as an economic evaluation and specify theinterventions being compared.	Page 1
ABSTRACT			
Abstract	2	Provide a structured summary that highlights context, key methods,results and alternative analyses.	Page 1
INTRODUCTION			
Background and objectives	3	Give the context for the study, the study question and its practicalrelevance for decision making in policy or practice.	Page 2
METHODS			
Health economic analysis plan	4	Indicate whether a health economic analysis plan was developed and where available.	Page 3-4 (Table 1)
Study population	5	Describe characteristics of the study population (such as age range, demographics, socioeconomic, or clinical characteristics).	Page 3-4 (Table 1)
Setting and location	6	Provide relevant contextual information that may influence findings.	Page 3-4
Comparators	7	Describe the interventions or strategies being compared and why chosen.	Page 3-4
Perspective	8	State the perspective(s) adopted by the study and why chosen.	Page 4
Time horizon	9	State the time horizon for the study and why appropriate.	Page 4
Discount rate	10	Report the discount rate(s) and reason chosen.	Page 4
Selection of outcomes	11	Describe what outcomes were used as the measure(s) of benefit(s)and harm(s).	Page 5
Measurement of outcomes	12	Describe how outcomes used to capture benefit(s) and harm(s)were measured.	Page5
Valuation of outcomes	13	Describe the population and methods used to measure and value outcomes.	Page 5
Measurement and valuation of resources and costs	14	Describe how costs were valued.	Page 5
Currency, price date, and conversion	15	Report the dates of the estimated resource quantities and unit costs, plus thecurrency and year of conversion.	Page 4 (Table 3)
Rationale and description of model	16	If modelling is used, describe in detail and why used. Report if the model is publicly available and where it can be accessed.	Page 3
Analytics and assumptions	17	Describe any methods for analysing or statistically transforming data, anyextrapolation methods, and approaches for validating any model used.	Page 5-6
Characterizing heterogeneity	18	Describe any methods used for estimating how the results of the studyvary for sub-groups.	Page 5-6
Characterizing distributional effects	19	Describe how impacts are distributed across different individuals or adjustments made to reflect priority populations.	Page 5-6
Characterizing uncertainty	20	Describe methods to characterize any sources of uncertainty in the analysis.	Page 5-6
Approach to engagement with patients and others affected by the study	21	Describe any approaches to engage patients or service recipients, the general public, communities, or stakeholders (e.g., clinicians or payers) inthe design of the study.	NA
RESULTS			
Study parameters	22	Report all analytic inputs (e.g., values, ranges, references) includinguncertainty or distributional assumptions.	Page 6
Summary of main results	23	Report the mean values for the main categories of costs and outcomes ofinterest and summarise them in the most appropriate overall measure.	Page 6-8 (Table 5-7)
Effect of uncertainty	24	Describe how uncertainty about analytic judgments, inputs, or projections affect findings. Report the effect of choice of discount rate and time horizon,if applicable.	Page 6-8 (Figure 1-3)
Effect of engagement with patients and others affected by the study	25	Report on any difference patient/service recipient, general public, community,or stakeholder involvement made to the approach or findings of the study	NA
DISCUSSION			
Study findings, limitations, generalizability, and current knowledge	26	Report key findings, limitations, ethical or equity considerations not captured,and how these could impact patients, policy, or practice.	Page 8-11
OTHER RELEVANT INFORMATION			

Source of funding	27	Describe how the study was funded and any role of the funder inthe identification, design, conduct, and reporting of the analysis	Page 12
Conflicts of interest	28	Report authors conflicts of interest according to journal or International Committee of Medical Journal Editors requirements.	Page 12

Husereau D, Drummond M, Augustovski F, de Bekker-Grob E, Briggs AH, Carswell C, Caulley L, Chaiyakunapruk N, Greenberg D, Loder E, Mauskopf J, Mullins CD, Petrou S, Pwu RF, Staniszewska S; CHEERS 2022 ISPOR Good Research Practices Task Force. Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) Statement: Updated Reporting Guidance for HealthEconomic Evaluations. BMJ. 2022;376:e067975.