

Cost-Effectiveness Analysis of Ivonescimab Plus Chemotherapy versus Tislelizumab Plus Chemotherapy as First-Line Treatment for Advanced Squamous Non-Small Cell Lung Cancer: A Chinese Healthcare Perspective

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Research Article

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Abstract

Background

Ivonescimab is a novel bispecific antibody targeting programmed death-1 (PD-1) and vascular endothelial growth factor (VEGF), showing promising antitumor activity in combination with chemotherapy for advanced squamous non-small cell lung cancer (NSCLC) patients who previously untreated as first-line treatment. However, the cost-effectiveness of this regimen remains unknown.

Methods

A partitioned survival model with three health states was developed based on the HARMONi-6 clinical trial to evaluate the cost-effectiveness of ivonescimab plus chemotherapy (Ivo-Chemo) versus tislelizumab plus chemotherapy (Tis-Chemo) from the Chinese healthcare perspectives. Clinical efficacy was estimated using reconstructed individual patient data from the trial. Costs and utilities were derived from the literature and public databases. The primary outcome was the incremental cost-effectiveness ratio (ICER) per quality-adjusted life-year (QALY) gained. One-way, and probabilistic sensitivity analyses were conducted to assess model uncertainty.

Results

In the base-case analysis, Ivo-Chemo was associated with a total cost of \$50,959.04 and accrued 2.77 QALYs over the 15-year time horizon, compared with \$27,589.99 and 1.77 QALYs for Tis-Chemo. The ICER was \$23,366.05/QALY in China, lower than the respective willingness-to-pay (WTP) thresholds (\$41,859.05). One-way sensitivity analysis identified the cost of ivonescimab, patient weight and utility of progressed disease as the most influential parameters. Probabilistic sensitivity analysis demonstrated a high probability of cost-effectiveness, at 99.83% in China. The subgroup analysis indicated that there was potential cost-effectiveness regardless of the patient's programmed death-ligand 1 (PD-L1) expression level or the presence of liver metastasis.

Conclusion

Ivonescimab plus chemotherapy was likely to be cost-effective at current pricing and WTP thresholds in China.

Introduction

Lung cancer remains the leading cause of cancer-related mortality worldwide, accounting for approximately 1.8 million deaths annually [1]. Non-small cell lung cancer (NSCLC) constitutes approximately 85% of all lung cancer cases, among which squamous cell carcinoma accounts for 20–

30% [2]. China bears one of the highest global burdens of lung cancer, posing substantial challenges to healthcare systems and resource allocation [3]. Compared with non-squamous NSCLC, advanced squamous NSCLC is associated with poorer clinical outcomes and more limited therapeutic options, largely because actionable driver alterations such as EGFR mutations and ALK rearrangements are uncommon in this histological subtype, and concerns regarding treatment-related haemorrhage have historically restricted the use of anti-angiogenic therapies [2, 4].

The introduction of immune checkpoint inhibitors (ICIs) targeting programmed death-1 (PD-1) or programmed death-ligand 1 (PD-L1) has substantially transformed first-line treatment for advanced squamous NSCLC. Multiple phase III studies have demonstrated improved survival outcomes with PD-1/PD-L1 inhibitors combined with platinum-based chemotherapy compared with chemotherapy alone [5–10]. Consequently, several immunochemotherapy regimens have been approved in China as standard first-line treatment options, including pembrolizumab- and tislelizumab-based combinations. Among these, tislelizumab combined with paclitaxel and carboplatin demonstrated clinically meaningful efficacy in the RATIONALE-307 study (median progression-free survival [PFS], 7.6 vs 5.5 months; hazard ratio [HR], 0.52) and has been recommended by the Chinese Society of Clinical Oncology (CSCO) guideline as a standard treatment option [6]. Nevertheless, median PFS across currently available immunochemotherapy regimens remains limited to approximately 5–8 months, and a substantial proportion of patients still experience early disease progression, underscoring the need for more effective first-line strategies while maintaining acceptable healthcare value [5–10].

Preclinical evidence suggests that vascular endothelial growth factor (VEGF) blockade may normalise tumour vasculature, promote T-cell infiltration, and enhance antitumour immune activity when combined with PD-1 inhibition [11]. However, conventional anti-angiogenic approaches have not been widely adopted in squamous NSCLC because of concerns regarding severe haemorrhagic toxicity. Early studies evaluating bevacizumab-containing regimens reported clinically significant bleeding events in patients with squamous histology [4]. In addition, the LEAP-007 trial evaluating lenvatinib plus pembrolizumab in advanced NSCLC failed to demonstrate an overall survival benefit and was associated with increased treatment-related toxicity [12]. These findings have limited the clinical implementation of anti-VEGF strategies in squamous NSCLC. Therefore, novel approaches integrating immune checkpoint inhibition with more selective VEGF targeting may offer an alternative therapeutic strategy.

Ivonescimab (AK112) is a first-in-class humanised bispecific IgG1 antibody simultaneously targeting PD-1 and VEGF through a cooperative binding mechanism, which has been proposed to enhance tumour-selective target engagement while potentially reducing systemic VEGF exposure [13]. Clinical studies have demonstrated promising activity across multiple NSCLC settings. Based on the HARMONi-A study, ivonescimab combined with chemotherapy was approved in China for patients with EGFR-mutated non-squamous NSCLC who experienced disease progression after EGFR tyrosine kinase inhibitor therapy [14]. Subsequently, the HARMONi-2 study supported approval of ivonescimab monotherapy as first-line treatment for patients with PD-L1-positive advanced NSCLC [15]. Ivonescimab was subsequently

included in the National Reimbursement Drug List (NRDL) following national price negotiation, potentially improving treatment affordability within the Chinese healthcare system.

The phase III HARMONi-6 trial (NCT05840016) was the first head-to-head study comparing a PD-1/VEGF bispecific antibody plus chemotherapy with PD-1 inhibitor plus chemotherapy as first-line treatment for previously untreated advanced squamous NSCLC [16]. Conducted across 50 centers in China regardless of PD-L1 expression, the interim analysis demonstrated that ivonescimab combined with paclitaxel and carboplatin significantly prolonged PFS compared with tislelizumab plus chemotherapy (median PFS, 11.1 vs 6.9 months; HR 0.60, 95% CI 0.46–0.78; $p < 0.0001$), with consistent benefit across PD-L1 subgroups [16]. In the prespecified interim overall survival (OS) analysis, ivonescimab plus chemotherapy further demonstrated statistically significant improvement in OS compared with tislelizumab plus chemotherapy (median OS, 27.9 vs 23.7 months; HR 0.66, 95% CI 0.50–0.87; $p = 0.0017$), accompanied by a higher 24-month OS rate (64.7% vs 48.6%)[17]. These survival gains, however, may also translate into increased treatment duration and cumulative healthcare expenditure.

Although the HARMONi-6 study established meaningful clinical benefit, the economic value of ivonescimab plus chemotherapy in this setting remains unclear. As a novel bispecific antibody regimen, ivonescimab may impose additional healthcare expenditure despite reimbursement support. Determining whether the incremental survival benefit justifies the additional costs is therefore essential for healthcare decision-makers, reimbursement authorities, and clinicians. To date, no published study has evaluated the cost-effectiveness of ivonescimab plus chemotherapy against an active immunochemotherapy comparator in previously untreated advanced squamous NSCLC. Accordingly, this study constructed a partitioned survival model (PSM) based on HARMONi-6 trial data to evaluate the lifetime costs, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratio (ICER) of ivonescimab plus chemotherapy versus tislelizumab plus chemotherapy from the perspective of the Chinese healthcare system.

Methods

This economic evaluation was conducted using modelling techniques, public databases and published literature, did not involve the consent to participate declaration. The study was conducted and reported in accordance with the Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) checklist (Supplementary Table S1)[18].

Model structure

A partitioned survival model (PSM) was constructed in Microsoft Excel (Office 2019) to evaluate the cost-effectiveness of ivonescimab plus chemotherapy (Ivo-Chemo) versus tislelizumab plus chemotherapy (Tis-Chemo) as first-line treatment for advanced squamous NSCLC. The model comprised three mutually exclusive and exhaustive health states: progression-free survival (PFS), progressed

disease (PD), and death. All patients entered the model in the PFS state and could transition only to PD or death; backward transitions were not permitted (Fig. 1).

A cycle length of 21 days was adopted, consistent with the treatment schedule of both regimens. The analytical time horizon was set at 15 years, on the assumption that the survival trajectories of the two strategies would converge by that point. Primary model outcomes included total costs, life-years (LYs), quality-adjusted life-years (QALYs), and the incremental cost-effectiveness ratio (ICER). The willingness-to-pay (WTP) threshold was set at \$41,859.05 per QALY, equivalent to three times China's 2025 gross domestic product (GDP) per capita [19, 20]. Costs and health outcomes were both discounted at an annual rate of 4.5%, in accordance with Chinese pharmacoeconomic guidelines [19, 21]. All costs were expressed in US dollars (USD) and converted from Chinese yuan (CNY) using an exchange rate of 1 USD = 7.1429 CNY, reflecting the average rate for 2025.

Patient characteristics and treatment regimes

Clinical efficacy and safety data were sourced from the HARMONi-6 study, a randomized, double-blind, phase 3 trial conducted across 50 hospitals in China [17]. Eligible patients were aged 18–75 years with previously untreated, pathologically confirmed, unresectable stage IIIB, IIIC, or stage IV squamous NSCLC and an Eastern Cooperative Oncology Group (ECOG) performance status score of 0 or 1. In both treatment arms, induction chemotherapy comprised paclitaxel (175 mg/m²) and carboplatin (AUC 5 mg/mL per min), administered intravenously on day 1 of each 21-day cycle for four cycles, combined with either ivonescimab (20 mg/kg) or tislelizumab (200 mg). Following completion of four induction cycles, patients received maintenance monotherapy with ivonescimab or tislelizumab at the same respective doses. Treatment was continued until disease progression, unacceptable toxicity, investigator decision, patient withdrawal, or death, whichever occurred first. Following disease progression, patients received chemotherapy (docetaxel), immunotherapy (nivolumab, pembrolizumab, atezolizumab and tislelizumab), targeted therapy (afatinib), antibody-drug conjugates (sacituzumab tirumotecan), and best supportive care, in accordance with the HARMONi-6 study and the CSCO guidelines.

Clinical data

PFS and OS data were extracted from the Kaplan–Meier (KM) survival curves published in the HARMONi-6 reports using GetData Graph Digitizer. Individual patient data (IPD) was reconstructed from the extracted coordinates, and parametric survival models were fitted using RStudio (Figure S4–S5). Seven parametric distributions were evaluated: exponential, Weibull, gamma, generalised gamma, Gompertz, log-normal, and log-logistic [22]. Model selection was guided by goodness-of-fit statistics, specifically the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) (Supplementary Table S3), alongside visual inspection for clinical plausibility.

Cost and Utilities

Only direct medical costs were included in the analysis. Cost components comprised drug acquisition costs, diagnostic tests, routine follow-up, BSC, end-of-life care, and the management of grade ≥ 3 adverse events (AEs) with an incidence of $\geq 5\%$. Drug acquisition costs were derived from the most recent average winning bid prices recorded in the YaoZH database[23], all other cost inputs were obtained from published literature (Supplementary Table S2). Routine surveillance was assumed to include laboratory tests, computed tomography of the chest and abdomen, magnetic resonance imaging, and bone scintigraphy. As health-related quality of life data were not prospectively collected in the HARMONi-6 trial, health state utility values were derived from external published sources. Utility values of 0.8770 and 0.7840 were assigned to the PFS and PD states, respectively, as measured by the EuroQol five-dimension (EQ-5D) instrument in Chinese NSCLC patients. Disutility values associated with grade ≥ 3 AEs were obtained from the published literature.

Subgroup Analyses

Subgroup analyses were performed to evaluate the cost-effectiveness of Ivo-Chemo in clinically relevant patient populations for which stratified PFS and OS data were available from the HARMONi-6 trial, specifically patients stratified by PD-L1 tumor proportion score (TPS < 1%, $\geq 1\%$, 1–49%, and $\geq 50\%$) and by the presence or absence of baseline liver metastases.

Sensitivity Analysis

One-way sensitivity analysis (OWSA) was conducted to assess the independent influence of each model parameter on the ICER. Parameters were varied across their plausible ranges; where 95% confidence intervals were unavailable, a $\pm 20\%$ variation from the base-case value was applied. The discount rate was tested across a range of 0% to 8%. Results are presented as tornado diagrams. Probabilistic sensitivity analysis (PSA) was performed using second-order Monte Carlo simulation with 10,000 iterations, in which all parameters were simultaneously sampled from prespecified probability distributions to characterise joint parameter uncertainty. Gamma distributions were assigned to cost parameters; beta distributions were assigned to AE incidence rates, utility values, and disutility values. Results are presented as cost-effectiveness scatter plots and cost-effectiveness acceptability curves (CEACs).

Results

Base-case Analysis

In the base-case analysis, Ivo-Chemo was associated with a total cost of \$50,959.04 and accrued 2.77 QALYs over the 15-year time horizon, compared with \$27,589.99 and 1.77 QALYs for Tis-Chemo. The incremental cost of Ivo-Chemo over Tis-Chemo was \$16,608.46, and the incremental LYs gain was 1.40, yielding an ICER of \$23,366.05 per QALY. This ICER falls below the predefined WTP threshold of

\$41,859.05 per QALY, indicating that Ivo-Chemo is cost-effective compared with Tis-Chemo as first-line treatment for advanced squamous NSCLC in China (Table 1).

Table 1
Results of base-case analysis.

Overall population	Costs (\$)	LYs	QALYs	ICER (\$/LY)	ICER (\$/QALY)
Tislelizumab plus chemotherapy	27,589.99	2.03	1.77	16,608.46	23,366.05
Ivonescimab plus chemotherapy	50,959.04	3.43	2.77		
PD-L1 TPS < 1%					
Tislelizumab plus chemotherapy	24,726.24	1.67	1.46	18,243.89	24,289.75
Ivonescimab plus chemotherapy	48,146.16	2.96	2.43		
PD-L1 TPS ≥ 1%					
Tislelizumab plus chemotherapy	28,512.95	2.14	1.88	18,191.17	25,550.04
Ivonescimab plus chemotherapy	59,752.30	3.86	3.11		
PD-L1 TPS = 1–49%					
Tislelizumab plus chemotherapy	32,823.75	2.75	2.28	8,892.83	13,582.04
Ivonescimab plus chemotherapy	60,422.54	5.86	4.31		
PD-L1 TPS ≥ 50%					
Tislelizumab plus chemotherapy	37,118.34	3.25	2.65	21,953.66	31,065.64
Ivonescimab plus chemotherapy	58,635.78	4.23	3.35		
With Liver Metastasis					
Tislelizumab plus chemotherapy	25,037.70	1.73	1.49	22,680.06	30,637.60
Ivonescimab plus chemotherapy	59,161.62	3.24	2.61		
Without Liver Metastasis					
Tislelizumab plus chemotherapy	28,638.48	2.15	1.88	13,636.93	19,789.72
Ivonescimab plus chemotherapy	48,881.40	3.64	2.90		
LY: life-year; QALY: quality adjusted life-year; ICER: incremental cost-effectiveness ratio					

Subgroup Analyses

Subgroup analyses demonstrated consistent cost-effectiveness of Ivo-Chemo across all evaluated patient populations (Table 1). Among PD-L1 expression subgroups, ICERs were \$24,289.75 per QALY

(TPS < 1%), \$25,550.04 per QALY (TPS ≥ 1%), \$13,582.04 per QALY (TPS 1–49%), and \$31,065.64 per QALY (TPS ≥ 50%), all below the WTP threshold. Among patients stratified by baseline liver metastasis status, the ICER was \$30,637.60 per QALY in those with liver metastases and \$19,789.72 per QALY in those without, both indicating cost-effectiveness.

Sensitivity Analysis

The results of OWSA are presented in Fig. 2 and Supplementary Figure S1. The utility value of the PD health state, patient body weight, and the unit acquisition cost of ivonescimab were identified as the three parameters exerting the greatest influence on the ICER across most analytical scenarios. PSA was conducted with 10,000 Monte Carlo iterations at the WTP threshold of \$41,859.05 per QALY. The probability of Ivo-Chemo being cost-effective was 99.83% for the overall population, 99.92% for patients with PD-L1 TPS < 1%, 99.65% for TPS ≥ 1%, 100% for TPS 1–49%, 90.98% for TPS ≥ 50%, 96.58% for patients with baseline liver metastases, and 99.96% for those without liver metastases. CEACs illustrating the probability of cost-effectiveness across a range of WTP thresholds are presented in Figs. 3–4 and Supplementary Figures S2–S3.

Discussions

To our knowledge, this is the first cost-effectiveness analysis comparing ivonescimab plus chemotherapy (Ivo-Chemo) with tislelizumab plus chemotherapy (Tis-Chemo) as first-line treatment for previously untreated advanced squamous NSCLC from the Chinese healthcare perspective, and the first pharmacoeconomic evaluation of a phase III trial demonstrating overall survival superiority for a PD-1/VEGF bispecific antibody over an established PD-1 inhibitor–based regimen in this histology. Based on a partitioned survival model informed by the HARMONi-6 trial, Ivo-Chemo was associated with a total cost of \$50,959.04 and 2.77 QALYs, compared with \$27,589.99 and 1.77 QALYs for Tis-Chemo, yielding an ICER of \$23,366.05 per QALY—well below the WTP threshold of \$41,859.05 per QALY. The central finding of this analysis is that the substantial survival benefit generated by dual PD-1/VEGF blockade, when evaluated under the current NRDL pricing framework, translates into economic value that is acceptable to the Chinese healthcare system.

The cost-effectiveness of Ivo-Chemo is underpinned by the magnitude of its clinical benefit over an active immunochemotherapy comparator. Unlike placebo-controlled designs, the HARMONi-6 trial compared Ivo-Chemo against an established PD-1 inhibitor–based standard of care, rendering the observed incremental survival gain more clinically meaningful in the context of current practice. The cooperative binding design of ivonescimab enables simultaneous PD-1 and VEGF blockade within a single tetravalent molecule, achieving enhanced local avidity at the tumour site while limiting systemic VEGF inhibition [13]. This dual mechanism simultaneously enhances antitumour immune activation through PD-1 blockade and promotes vascular normalisation through VEGF inhibition, effects that are biologically complementary and may explain the OS benefit observed in a histology where anti-angiogenic therapy was previously considered infeasible. The availability of a statistically significant interim OS analysis (median OS 27.9 vs 23.7 months; HR 0.66; 24-month OS rate 64.7% vs 48.6%)

provides mature and clinically grounded long-term survival inputs for the model, increasing confidence in the long-term economic estimates beyond what would be possible from PFS data alone [16, 17].

The favourable cost-effectiveness outcome is critically facilitated by China's national reimbursement negotiation mechanism. Since the establishment of the National Healthcare Security Administration (NHSA), China has implemented a centralised drug reimbursement negotiation system that has repeatedly achieved substantial price reductions for innovative anticancer agents through volume-based procurement and multi-round price negotiations [24, 25]. Ivonescimab was included in the NRDL in November 2024 following national price negotiation, with the post-negotiation price substantially lower than the original list price—a context directly incorporated into the base-case analysis. This policy-driven price reduction is a critical factor enabling the ICER to fall well within the WTP threshold. In the absence of such negotiation, the cost-effectiveness conclusion would likely differ markedly, given that ivonescimab's acquisition cost—dosed at 20 mg/kg every three weeks—represents the dominant expenditure component in the model. This pattern is consistent with a previous study of osimertinib plus chemotherapy for EGFR-mutant NSCLC, in which NRDL-negotiated pricing was similarly decisive in achieving cost-effectiveness in China [21].

One-way sensitivity analysis identified the utility value of the progressed disease (PD) state, patient body weight, and the unit acquisition cost of ivonescimab as the three parameters exerting the greatest influence on the ICER. The sensitivity of the model to PD-state utility reflects the substantial proportion of QALY accrual occurring during the post-progression phase in a disease with median OS exceeding two years; even modest changes in health-related quality of life during this period materially affect the incremental QALY denominator. The influence of body weight is a direct consequence of the weight-based dosing of ivonescimab, whereby incremental changes in assumed body weight proportionally alter per-cycle drug expenditure and cumulative treatment costs. Although the direction of the base-case conclusion remained unchanged across all parameter variations, these findings highlight that sustained price negotiation and accurate quality-of-life measurement in future trials will be important to maintain the economic value of this regimen. PSA with 10,000 Monte Carlo iterations demonstrated a probability of cost-effectiveness of 99.83% at the WTP threshold, providing strong statistical confidence in the base-case conclusion.

Subgroup analyses demonstrated consistent cost-effectiveness of Ivo-Chemo across all prespecified patient populations, with ICERs ranging from \$13,582.04 per QALY (PD-L1 TPS 1–49%) to \$31,065.64 per QALY (PD-L1 TPS $\geq$ 50%), and PSA acceptability rates of 90.98%–100%. Of particular note is the PD-L1-negative subgroup (TPS < 1%), in which the ICER was \$24,289.75 per QALY with a PSA acceptability rate of 99.92%. This population is traditionally considered less responsive to PD-1 inhibition, yet the VEGF blockade component of ivonescimab may confer incremental antitumour activity through vascular normalisation and enhanced T-cell infiltration in an immunologically suppressed tumour microenvironment [13, 16, 17]. The robust cost-effectiveness observed in this subgroup supports the potential value of ivonescimab specifically in patients for whom conventional PD-1 inhibitor-based regimens offer limited benefit.

Our findings extend the existing pharmacoeconomic evidence base for first-line immunochemotherapy in squamous NSCLC. Previous cost-effectiveness analyses of pembrolizumab plus chemotherapy versus chemotherapy alone in China have generally reported ICERs above the conventional WTP threshold at pre-NRDL list prices, with cost-effectiveness achieved only following substantial price reductions through national reimbursement negotiations [26]. The present analysis advances this evidence in two important respects. First, it evaluates a head-to-head comparison between two active immunochemotherapy regimens rather than against chemotherapy alone, which is more reflective of current clinical decision-making and provides a more stringent economic benchmark. Second, by incorporating OS data from the first phase III trial to demonstrate OS superiority for a PD-1/VEGF bispecific antibody over a PD-1 mono-antibody in squamous NSCLC, it provides more mature survival inputs and a more clinically relevant economic evaluation than analyses based on PFS data alone. As bispecific antibodies targeting multiple immunological and angiogenic pathways increasingly enter clinical practice, robust pharmacoeconomic evidence will be essential to guide reimbursement decisions and healthcare resource allocation in China and beyond.

Several limitations of this study should be acknowledged. First, the OS data from HARMONi-6 are derived from a prespecified interim analysis triggered after 204 events (63% of planned final analysis events), with a median follow-up of 21.4 months. As noted by the trial investigators, the median OS in the Ivo-Chemo group was reached following the last single event, and the long-term survival tail should therefore be interpreted with caution; longer follow-up from the final OS analysis will be necessary to reduce uncertainty in parametric extrapolations. Second, health utility values were not prospectively collected in HARMONi-6 and were derived from external published sources; although the direction of the base-case conclusion remained unchanged across utility parameter variations in OWSA, the absence of trial-based preference data introduces inherent uncertainty. Third, the trial enrolled relatively few female patients (7%) and excluded individuals aged over 75 years; results should therefore be interpreted with caution when extrapolated to these populations. Finally, only direct medical costs were included in accordance with Chinese pharmacoeconomic guidelines; indirect costs such as productivity loss and caregiver burden were not captured, potentially underestimating the full societal value of Ivo-Chemo.

Conclusion

Ivonescimab plus chemotherapy is cost-effective compared with tislelizumab plus chemotherapy as first-line treatment for advanced squamous NSCLC in China, with an ICER of \$23,366.05 per QALY against a WTP threshold of \$41,859.05 per QALY. This conclusion was robust across all PD-L1 expression and liver metastasis subgroups and supported by both OWSA and PSA. As the first pharmacoeconomic evaluation of HARMONi-6, these findings provide timely evidence to support reimbursement decision-making and healthcare resource allocation for this novel bispecific antibody class in China, and establish a methodological reference for future economic evaluations as PD-1/VEGF bispecific antibodies are considered for broader indications and international markets.

Declarations

Authors' contributions

Chuang Yang and Shixian Liu contributed to data collection, model parameterization, conducted the cost-utility analysis, and drafting of the initial manuscript. Tiantian Xuan contributed to data verification and picture production. Wen Zhao conceived and designed the study, constructed the Markov model, interpreted the results, and critically revised the manuscript for important intellectual content. Jisheng Li assisted in validating the clinical assumptions, evaluated the ophthalmological components, and provided expert recommendations on the screening strategies.

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Data availability

The data sets used during the current study are available from the corresponding author on reasonable request.

Ethics approval and consent to participate:

This economic evaluation was conducted using modelling techniques, public databases and published literature; ethics committee approval was therefore not required. The study was conducted and reported in accordance with the CHEERS 2022 checklist.

Clinical trial number:

Not applicable.

Human Ethics and Consent to Participate declarations:

Not applicable.

Conflict of interest statement

The authors declare no conflict of interest.

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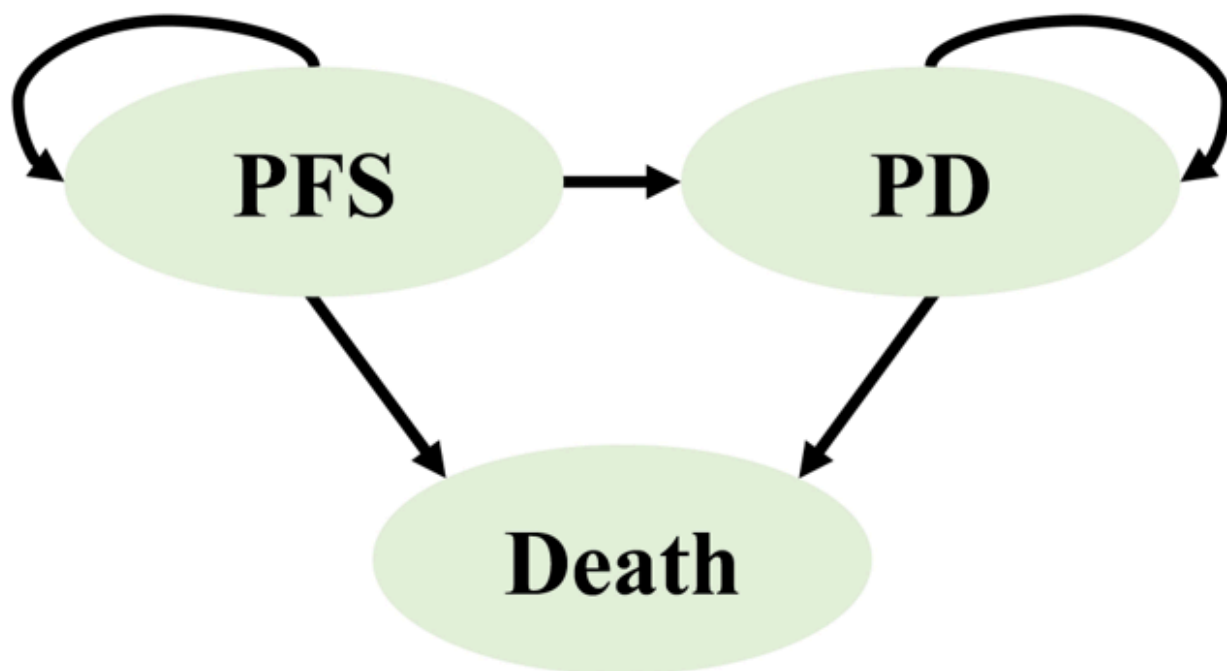
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Figures

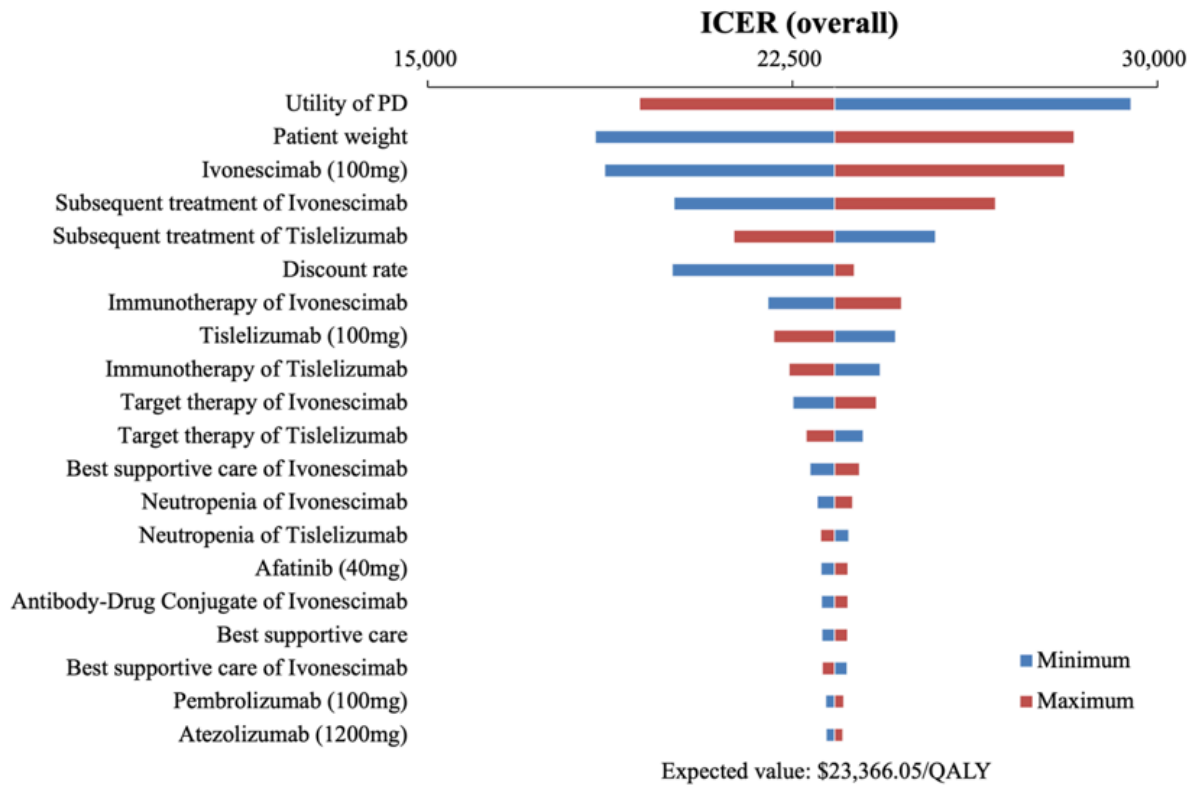
Figure 1. Model structure.



PFS: progression-free survival; PD: progressive disease.

Figure 1

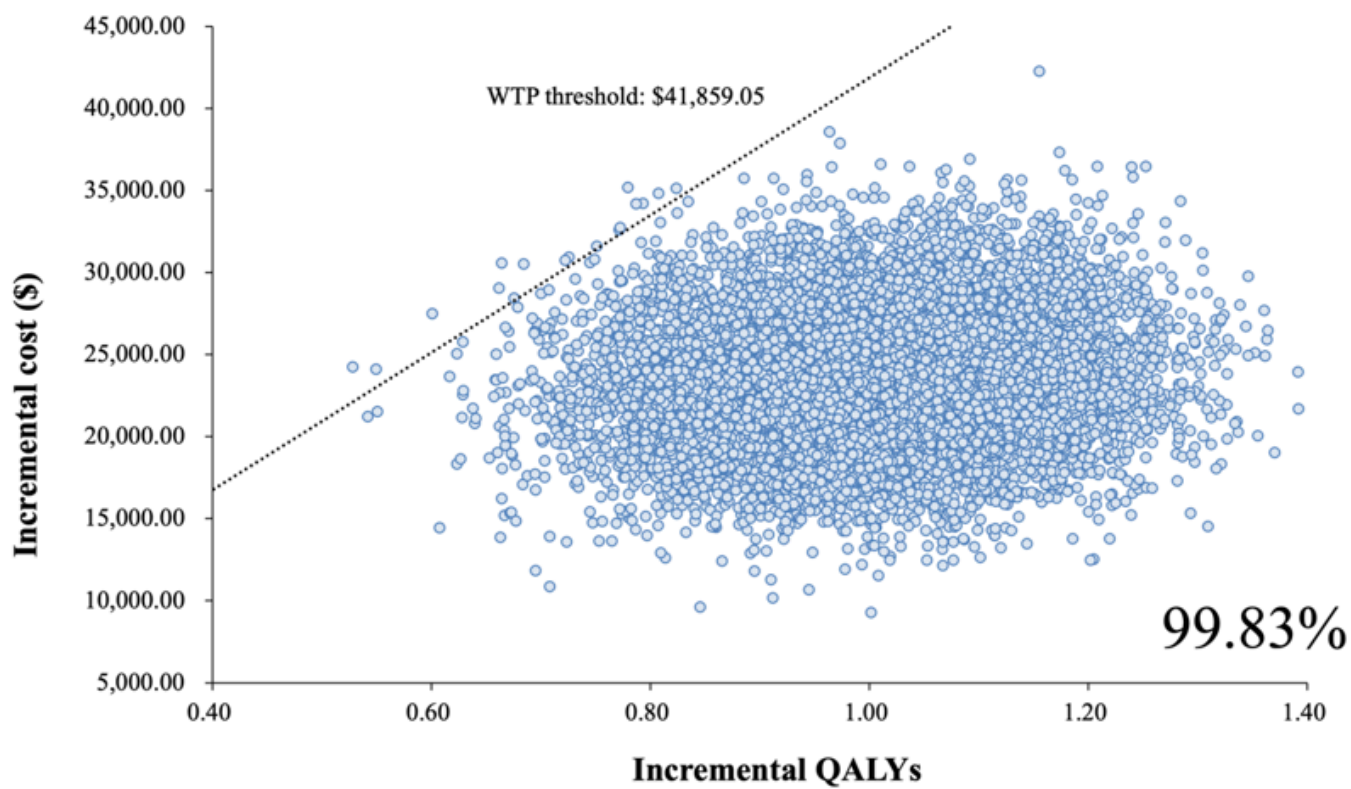
See image above for figure legend.



ICER: incremental cost-effectiveness ratio; PD, progressive disease.

Figure 2

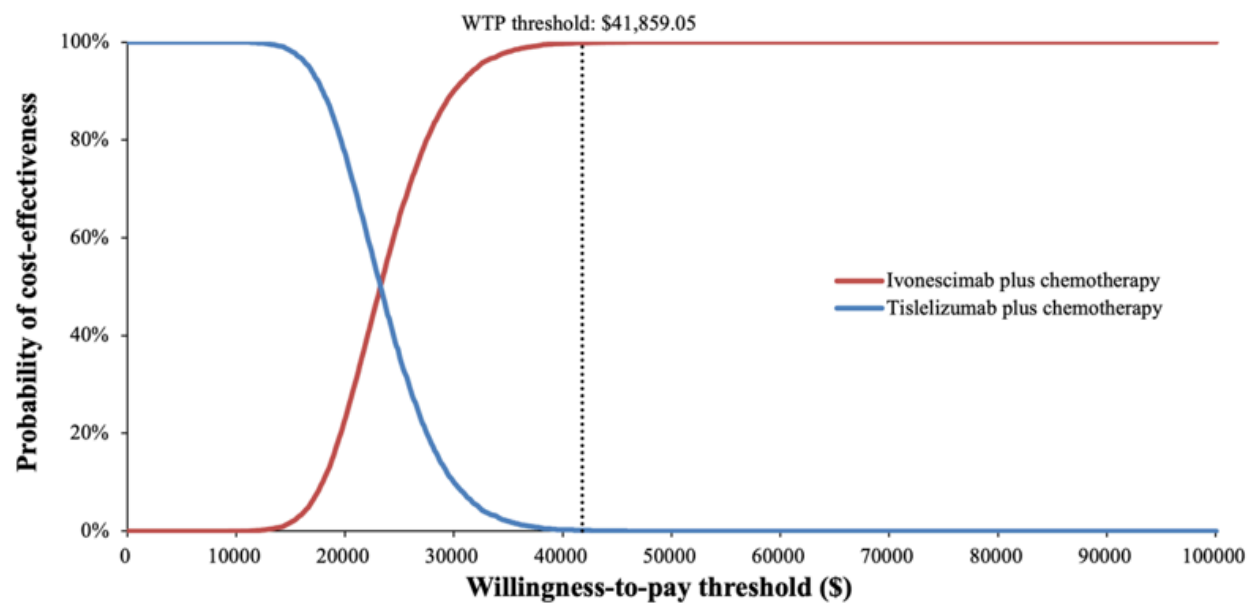
One-way sensitivity analysis in China.



QALY: quality adjusted life-year; WTP: willingness-to-pay.

Figure 3

Probabilistic sensitivity analysis in China. Incremental cost and incremental effect incurred by 10,000 probabilistic resampling.



WTP: willingness-to-pay.

Figure 4

Probability of cost-effectiveness in China at WTP thresholds.

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