

Cost-Effectiveness Analysis of Oteseconazole vs. Fluconazole for Patients With Severe Vulvovaginal Candidiasis in China

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INTRODUCTION

- In China, 70%-75% of women experience at least one episode of vulvovaginal candidiasis (VVC) in their lifetime, primarily affecting those of reproductive age between 20 and 40 years^[1].
- Among these patients, 40%-50% will experience recurrent episodes, which are often difficult to cure and significantly impair women's quality of life^[2].

OBJECTIVES

- This study aimed to estimate the cost-effectiveness of oteseconazole versus fluconazole for patients with severe vulvovaginal candidiasis (VVC) in China.

METHODS

- Perspective:** health care system
- Model:** A decision tree model was constructed to estimate the 1-year incremental cost-effectiveness ratio (ICER).
- Clinical input:** As the main clinical inputs in the model, clinical cure rate and recurrence rate were derived from the Chinese clinical trial SHR8008-302 and the international clinical trial VMT-VT-1161-CL-004, respectively. Other clinical inputs like frequency of disease recurrence, treatment rate of recurrent patients and therapies for recurrent patients were observed from a real world study in China. Utilities were obtained from a published literature^[3].

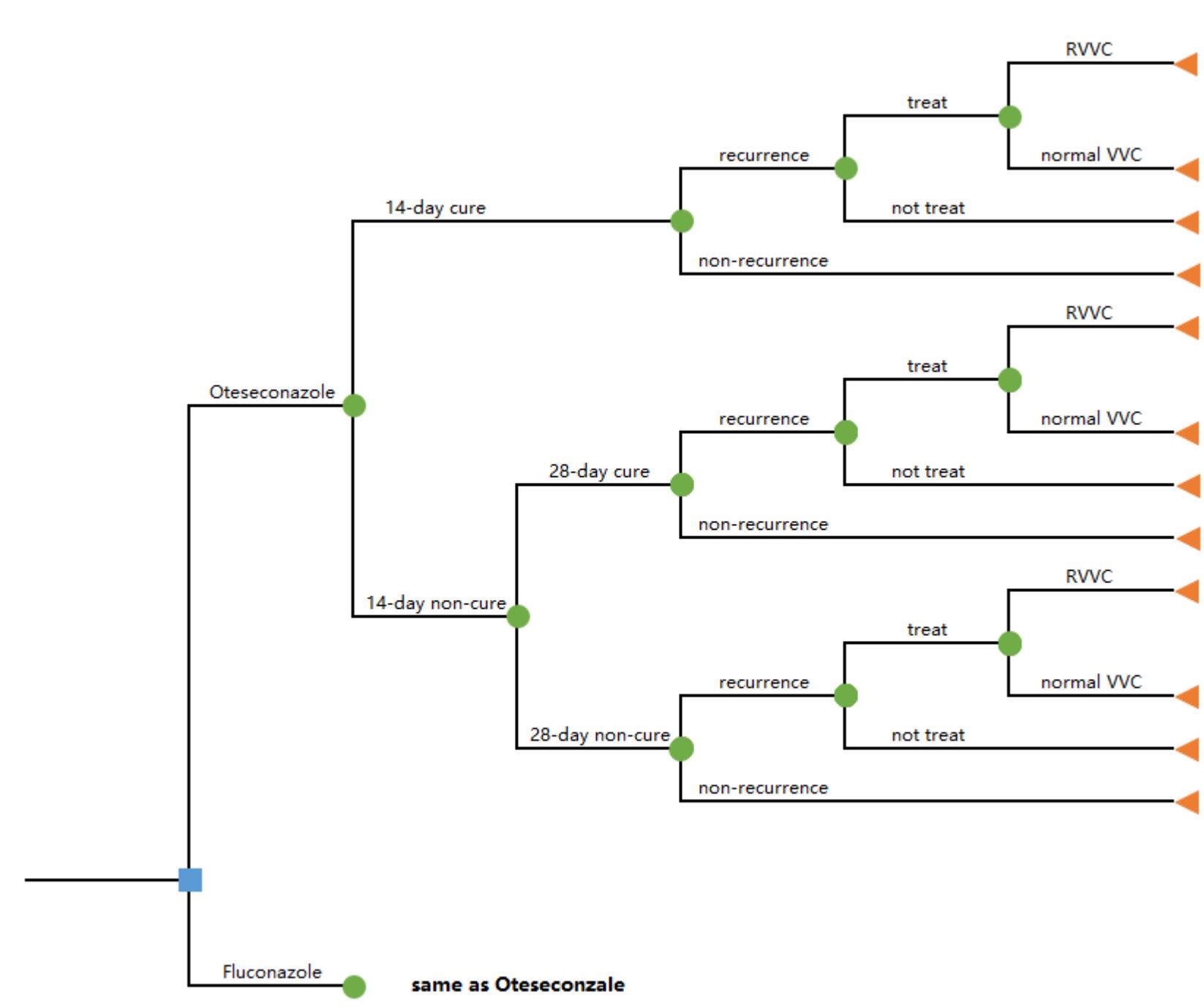


Figure 1 Markov Model

- Cost inputs:** The modelled cost comprised drugs, administration, adverse events management, follow-up and therapeutic costs. All costs were obtained from real world data and local published resources.
- Sensitivity analysis:** We presented one-way sensitivity analyses using tornado diagrams. We also performed a probabilistic sensitivity analysis using Monte Carlo simulation to further test the robustness of the results.

Table 1 Clinical Parameters

	Oteseconazole	Fluconazole
14-day cure rate	52.50%	38.36%
28-day cure rate	66.88%	45.91%
Recurrence rate	0	53.90%
Proportion of normal VVC	67%	67%
Recurrence occurrences of normal VVC	2.60	2.60
Recurrence rate of RVVC	33%	33%
Recurrence occurrences of RVVC	4.15	4.15
Treatment rate for recurrence	68%	68%

Table 2 Utilities

State	Utilities
Disease duration	0.845
Remission	0.872

Table 3 Costs

Treatment	Price (¥)
Oteseconazole	105.38 per pill
Fluconazole	6.13 per pill

RESULTS

Base Case Results

- The oteseconazole group resulted in 0.9527 QALYs in a 1-year period, with a cost of ¥1,188.
- The fluconazole group resulted in 0.9204 QALYs a 1-year period, with a cost of ¥1,349.
- Compared with fluconazole, oteseconazole could get more 0.0322 QALYs a 1-year period with saving ¥162.

Sensitivity Analyses Results

- One-way sensitivity analysis showed the results were generally robust (Figure 2).
- Probabilistic sensitivity analysis showed that oteseconazole was more cost-effective in 100% simulations at local threshold. (Figure 3 & Figure 4).

Table 4 Base Case Results

Results	Oteseconazole	Fluconazole	Difference
QALYs	0.9527	0.9204	0.0322
Costs (¥)	1,187.76	1,349.29	-161.53
ICER (¥/QALY)	Dominant		

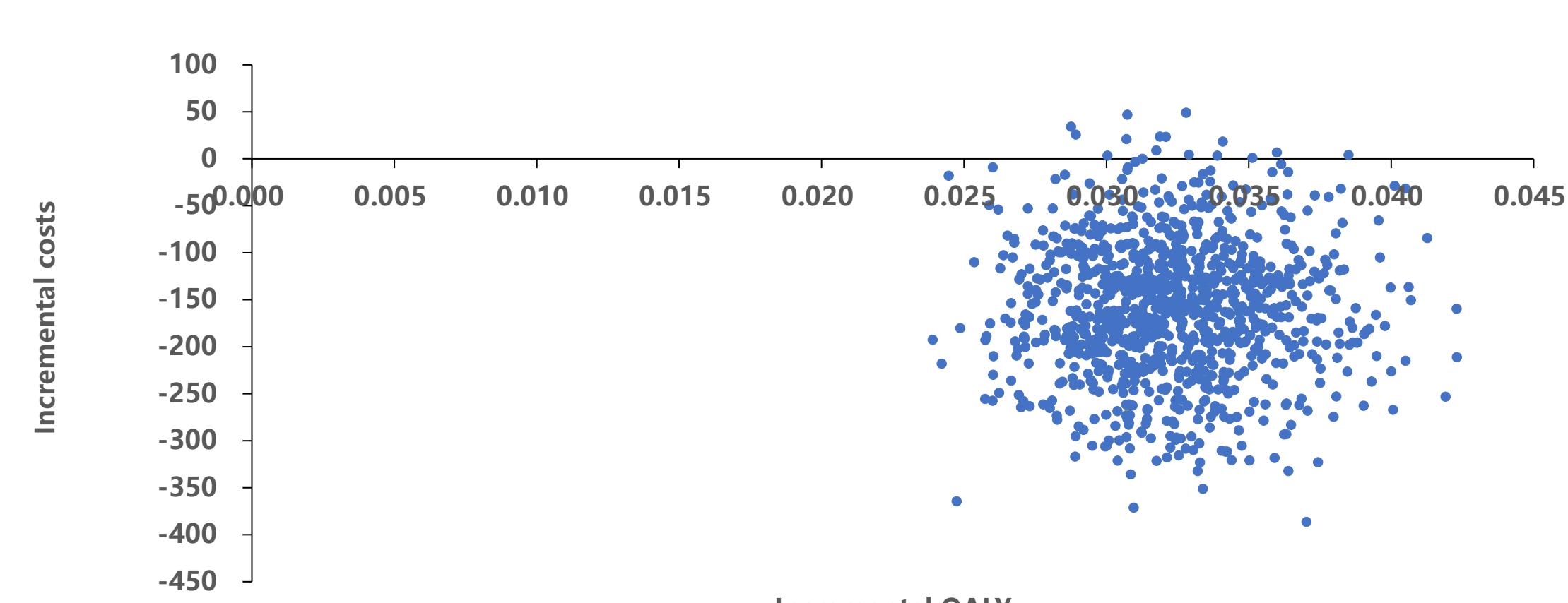


Figure 3 Incremental Cost-effectiveness Scatterplot

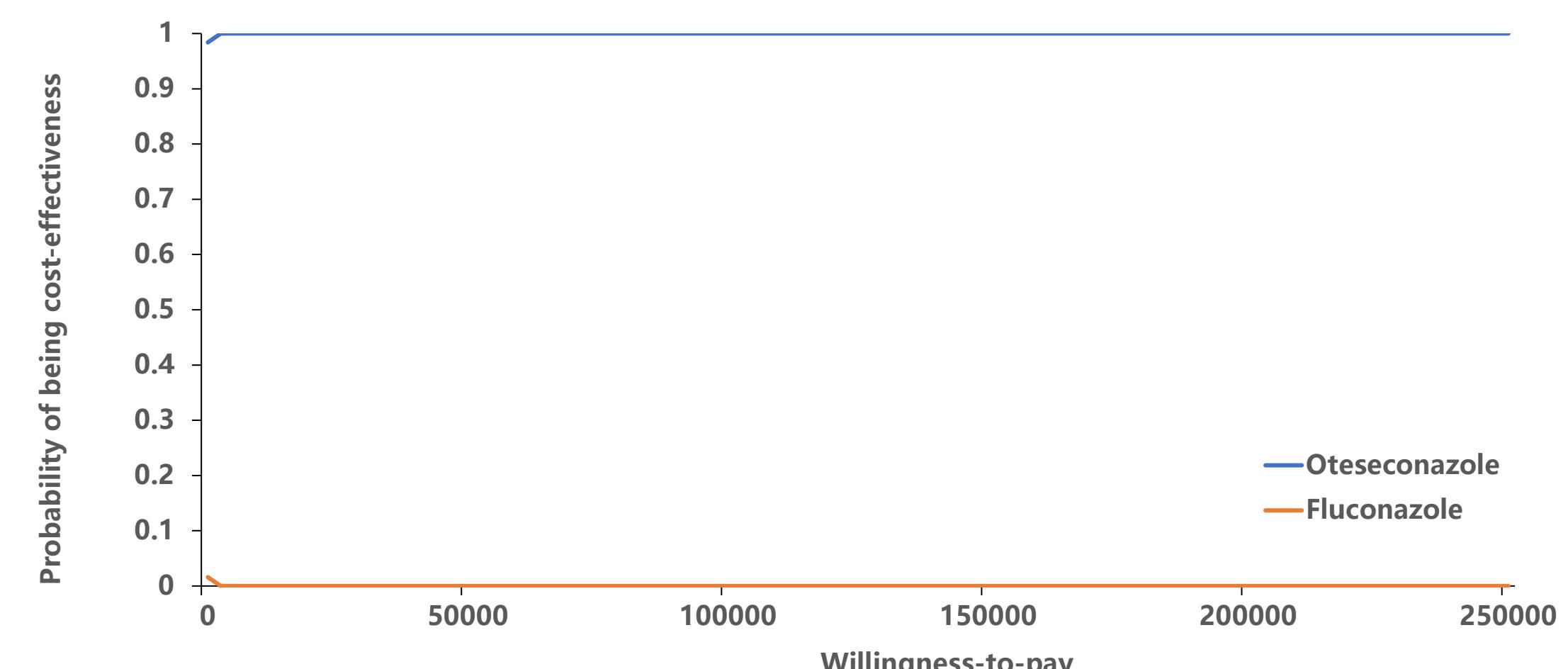


Figure 4 Cost-effectiveness Acceptability Curve

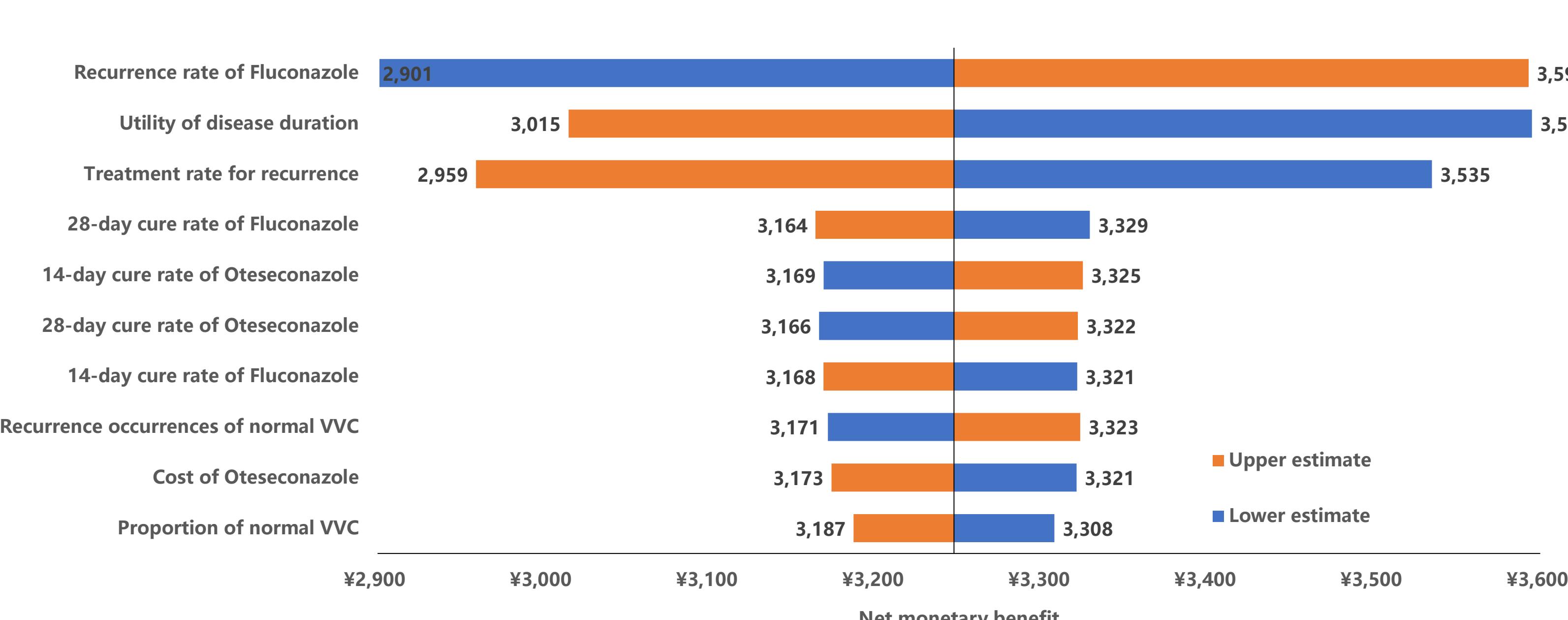


Figure 2 Tornado Diagram

CONCLUSION

Compared to fluconazole, oteseconazole was a more cost-effective choice for patients with severe VVC in China.

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