

Introduction

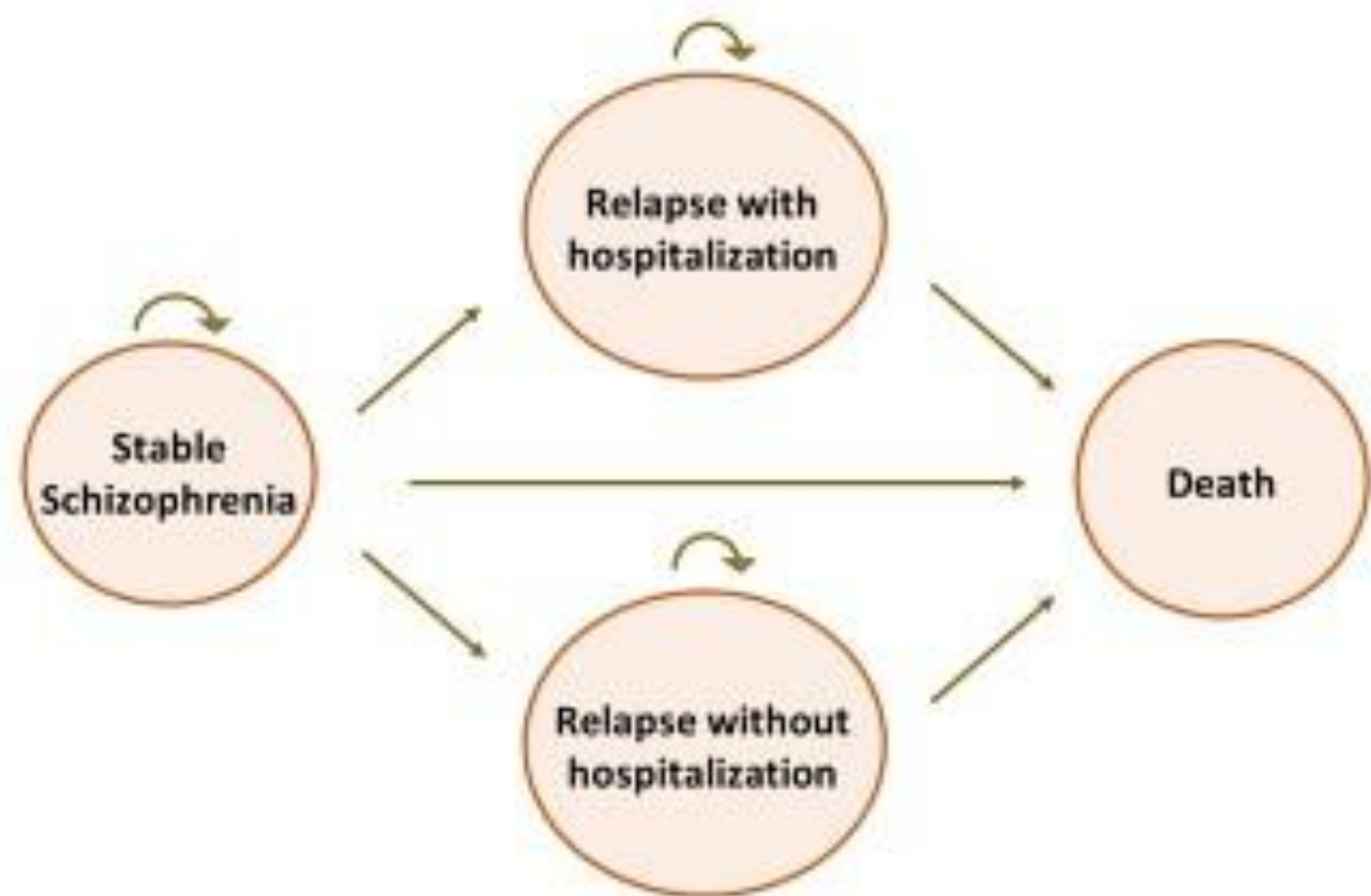
- Compared with daily administered antipsychotics, long-acting injectable antipsychotics (LAI) can improve medication adherence, resulting in a lower risk of relapse in patients with schizophrenia.
- Paliperidone palmitate, a new form of LAI, can be administered monthly (PP1M), three monthly (PP3M), or six monthly (PP6M).
- While proven effective in improving compliance, the economic value of administering this high-cost treatment is unknown.

Objective:

- To compare the cost-effectiveness across PP6M, PP3M, PP1M, and paliperidone extended-release tablets (ER).

Methods

- Populations:** adult patients with stable schizophrenia
- Intervention & comparator:**
 - Paliperidone ER, PP1M, PP3M, PP6M
- Outcomes:**
 - Cost: standardized to 2021 U.S. dollars
 - Rate of relapse with or without hospitalization, and death
 - Quality-adjusted life year (QALY)
 - Incremental Net Benefit (INB)
- Perspective:** payer of the U.S. healthcare system
- Markov model**

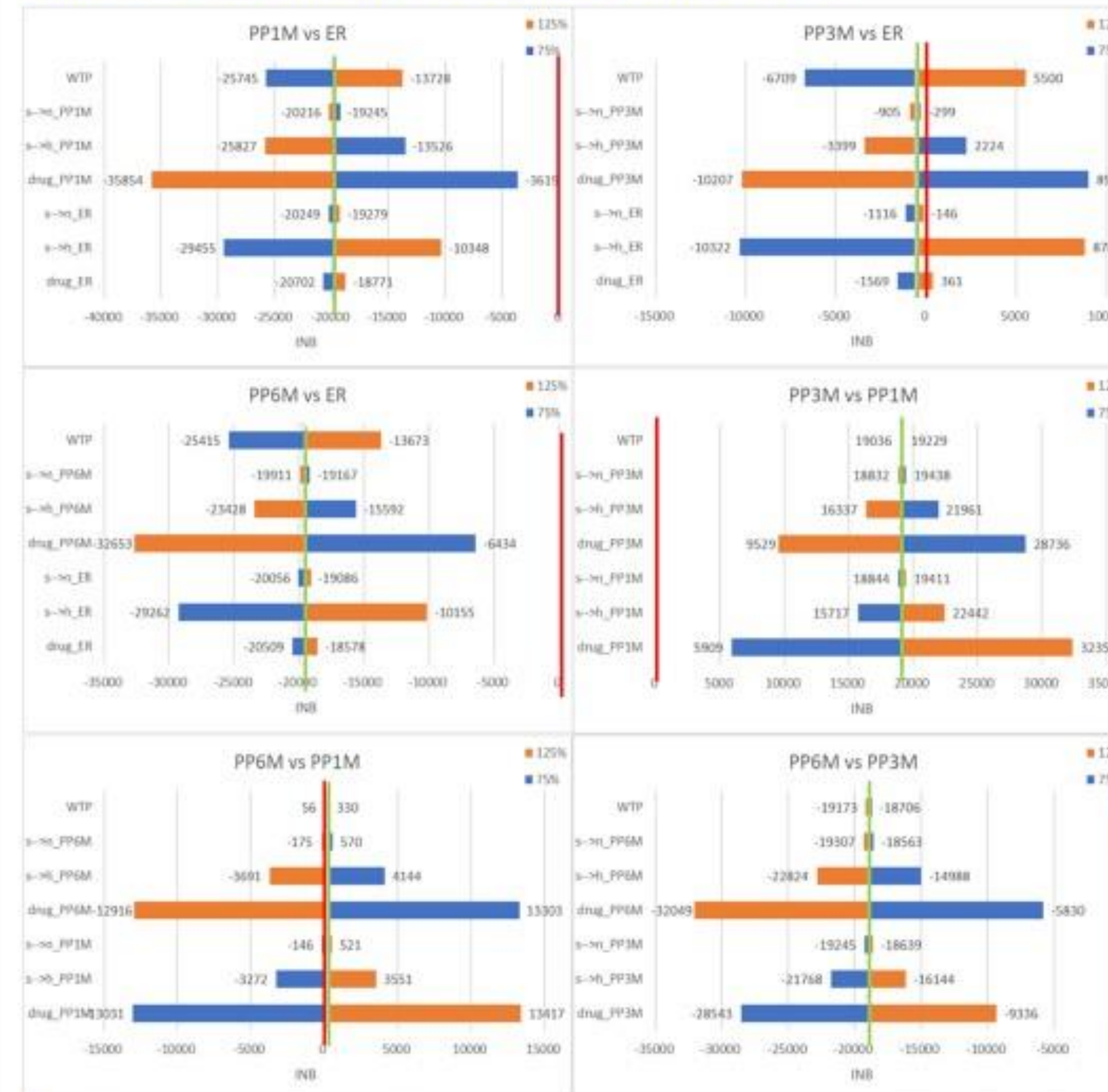


- Time horizon:** quarterly basis over a 3-year time horizon
- One-way sensitivity analysis:** parameter changes within $\pm 25\%$

Disclosures and Acknowledgements: none

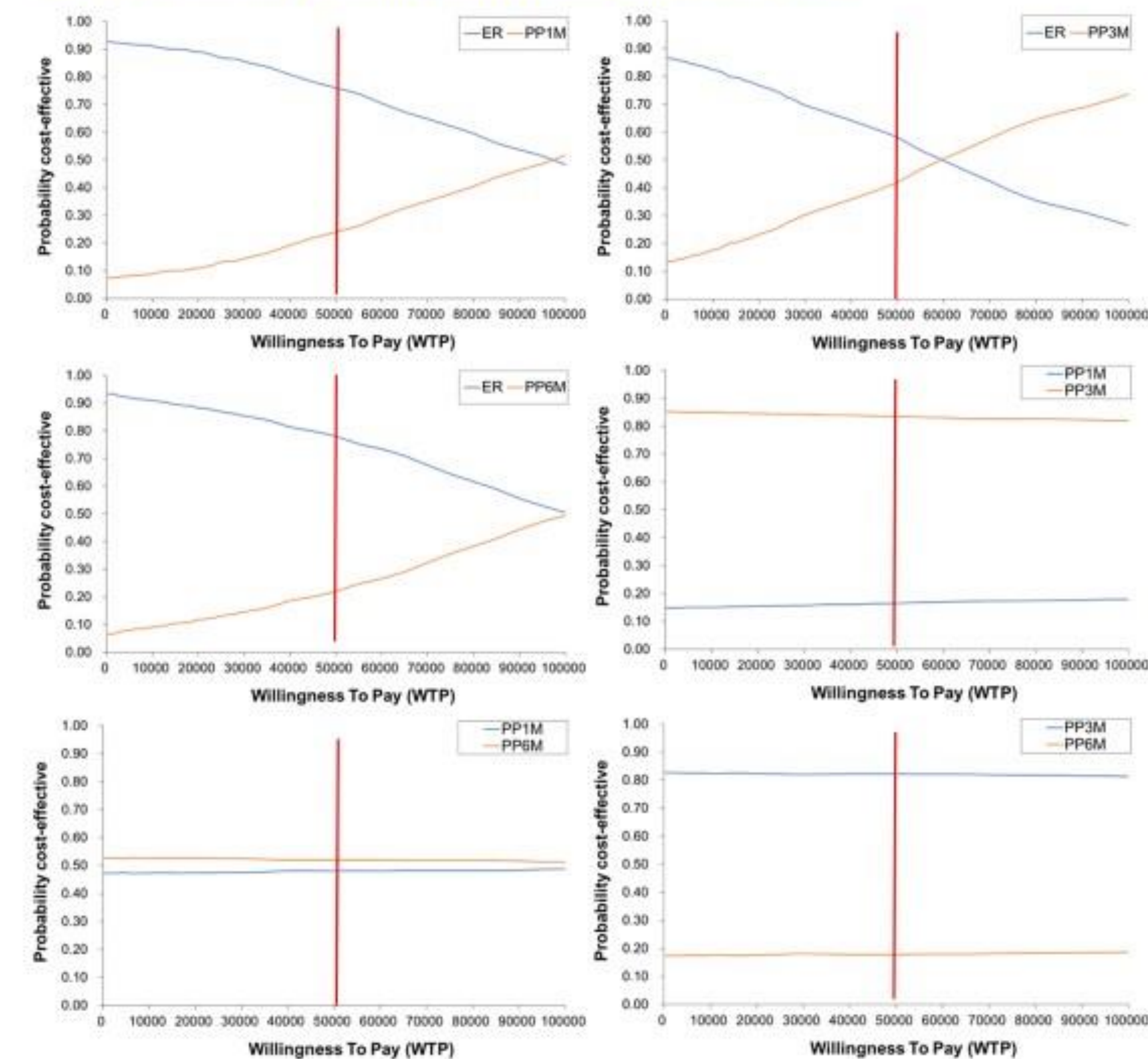
Results

Figure 1. One-way sensitivity analyses among different drug pairs



Abbreviations: WTP, willingness to pay; s→n, non-hospitalized relapse rate; s→h, hospitalized relapse rate, drug, drug cost
 Green line denotes the baseline INB; red line denotes that INB=0

Figure 2. Probabilistic sensitivity analyses among different drug pairs



Red line denotes that WTP=50,000

Main findings

- Compared with paliperidone ER, PP1M (INB -\$19,770), PP3M (INB -\$522), and PP6M (INB -\$19,471) are less cost-effective, suggesting that the benefits of LAIs may not outweigh the high administration costs, and thus paliperidone ER should have been used before initiating LAIs if possible
- Among paliperidone LAIs, PP3M has a preferable economic value over PP1M (INB \$19,248) and PP6M (INB \$18,948).
- Sensitivity analyses show that PP3M may be cost-effective over paliperidone ER under certain circumstances, and the comparison between PP1M and PP6M remains inconclusive.
- However, this conclusion is drawn based on results from clinical trials and might not be generalizable to real-world settings.