RWD293

Cost-effectiveness of Dostarlimab for Advanced or Recurrent MSI-H/dMMR Endometrial Cancer in anti-PD1/PD-L1 Naïve Patients: A Taiwan's National Health Insurance Perspective

Digital poster

Hsiao-Tung Tsai [1], Chi-Yun Wu [2], Liang-Yi Lin [2], Yao-Chun Wen [3], Yi-Wen Chang [3], Chyong-Huey Lai [4], Shih-Tsung Huang [1,5], Fei-Yuan Hsiao [2,6,7]

1 Department of Pharmacy, National Yang Ming Chiao Tung University, Taipei, Taiwan; 2 Graduate Institute of Clinical Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan; 3 GSK Far East B.V., Taipei, Taiwan
4 Gynecologic Cancer Research Center, Chang Gung Memorial Hospital, Linkou Branch, Taoyuan, Taiwan 5 Center for Healthy Longevity and Aging Sciences, National Yang Ming Chiao Tung University, Taipei, Taiwan;
6 School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan; 7 Department of Pharmacy, National Taiwan University Hospital, Taipei, Taiwan.

Aims

- To evaluate the cost-effectiveness of dostarlimab for PD-L1 inhibitor treatment-naïve patients with MSI-H/dMMR advanced or recurrent endometrial cancer who have progressed after platinum-based chemotherapy, from the perspective of Taiwan's National Health Insurance (NHI)

Methods

- Model Structure: A **partitioned survival model** with three health states (progression-free survival, progressed disease, and death) was used
- A lifetime time horizon of 40 years and a 3-week cycle length were applied
- **Efficacy Inputs:**
  - Key endpoints for dostarlimab (OS, PFS, and time on treatment) were estimated from patient-level data in the **GARNET trial** (cut-off: November 2021)
  - Comparator treatment effectiveness was estimated using matching-adjusted indirect comparisons (MAICs)
  - Carboplatin + paclitaxel (CP) was used as the base-case comparator treatment
- **Cost Inputs:** Direct medical costs were obtained from Taiwan NHI price lists, published literature, and expert opinion
- **Utility Inputs:** QALYs were calculated using utility values from EQ-5D-5L data in the GARNET study
- An annual 3% discount rate was applied, and the willingness-to-pay (WTP) threshold was set at TWD 3,300,000 (three times Taiwan's per capita GDP in 2024)

Results

- In the base-case analysis, the incremental cost-effectiveness ratio(ICER) of dostarlimab over carboplatin + paclitaxel was TWD 3,133,844 per QALY gained **(Table 1)**
- Dostarlimab provided the greatest QALY gain but at significantly higher incremental cost, compared to paclitaxel and carboplatin + paclitaxel **(Figure 1)**
- Deterministic sensitivity analyses revealed that patient baseline utility and the hazard ratio for overall survival associated with the carboplatin + paclitaxel had the greatest influence on the ICER **(Figure 2)**
- Probabilistic sensitivity analyses showed that at a WTP threshold of TWD 3,300,000, dostarlimab and CP had cost-effectiveness probabilities of 46% and 50%, respectively. **(Figure3)**

Table 1. **Summary of deterministic baseline results**

	Total costs	Total life years	Total QALYs	Incremental costs	Incremental life years	Incremental QALYs	ICER
Dostarlimab	TWD7,728,954	8.1	5.2	-	-	-	-
Carboplatin + paclitaxel	TWD242,601	4.4	2.9	TWD7,486,353	3.7	2.3	TWD3,133,844
Standard of care	TWD159,229	1.5	1.0	TWD7,569,725	6.5	4.1	TWD1,770,812
Doxorubicin or PLD	TWD180,704	2.3	1.4	TWD7,548,250	5.8	3.6	TWD1,983,898
Paclitaxel	TWD181,021	2.3	1.4	TWD7,547,933	5.8	3.6	TWD1,983,814

Figure 1. **Cost-Effectiveness Plane & Efficiency Frontier**

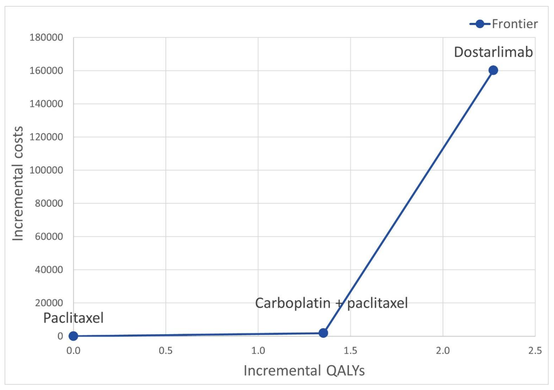


Figure 2. **Tornado plot of one-way sensitivity analysis**

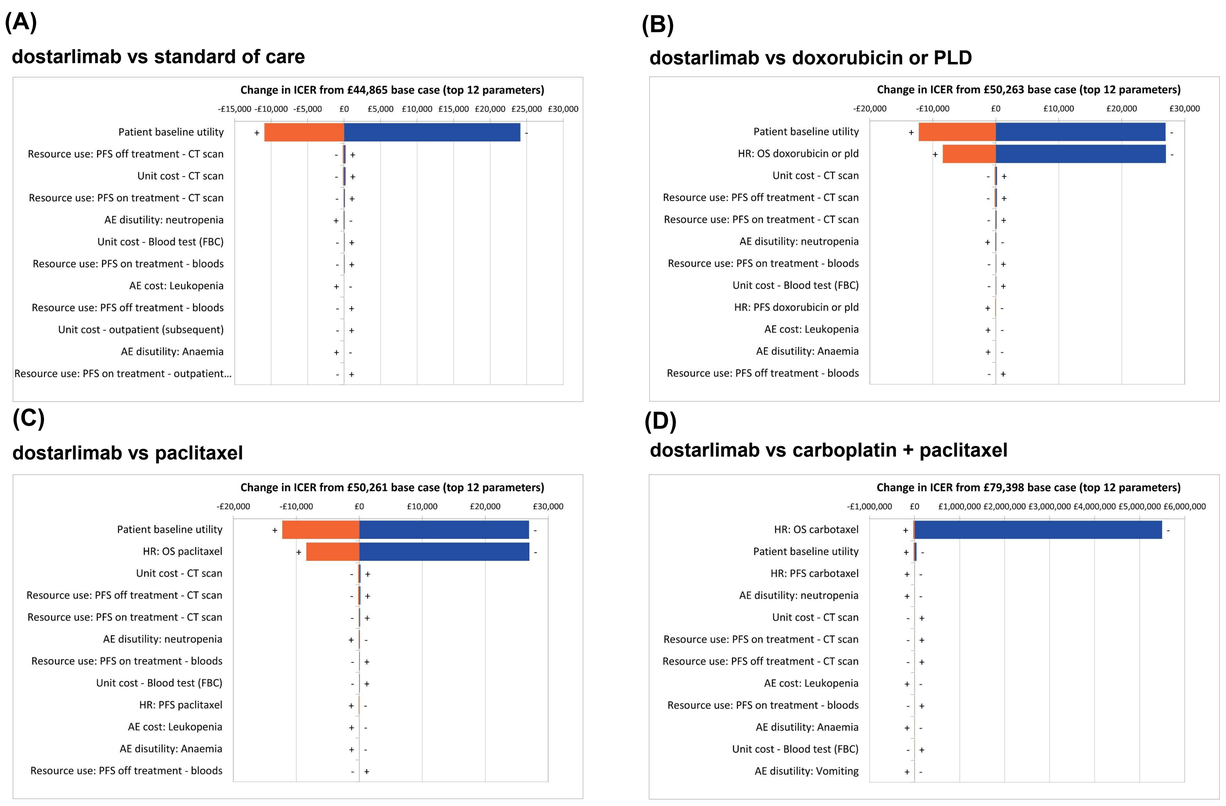
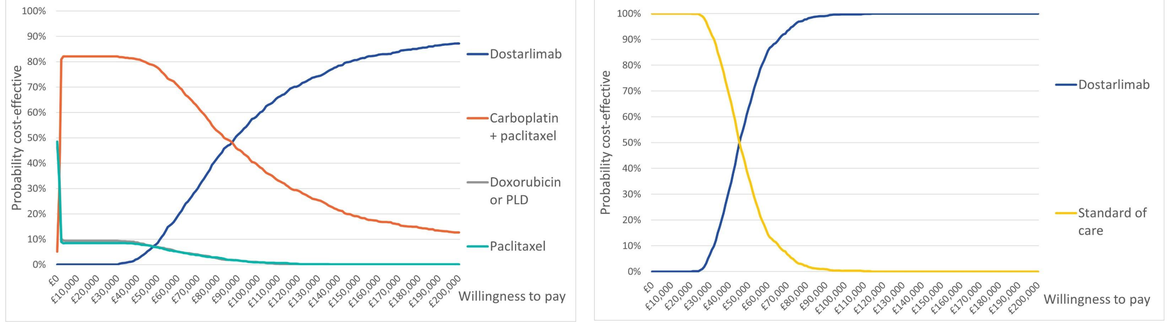


Figure 3. **Cost-effectiveness acceptability curve**



Background

- Dostarlimab monotherapy has shown significant clinical benefits in treating advanced or recurrent endometrial cancer
- Evidence from the GARNET trial showed that the benefits are especially notable in patients with MSI-H/dMMR tumors

Conclusions

- Dostarlimab monotherapy is **cost-effective** for anti-PD1/PD-L1 treatment-naïve patients with advanced or recurrent MSI-H/dMMR endometrial cancer compared to carboplatin + paclitaxel, based on a WTP threshold of TWD 3,300,000 per QALY

Abbreviations

MSI-H, microsatellite instability-high; dMMR, mismatch repair-deficient
OS, overall survival; PFS, progression-free survival;
NHI, National Health Insurance; WTP, Willingness to pay;
QALY, Quality-adjusted life years; ICER, incremental cost-effectiveness ratio
PLD, pegylated liposomal doxorubicin; CP, Carboplatin + paclitaxel
PD-L1, Programmed Death-Ligand 1

Acknowledgements

The authors thank GSK for the research funding support for this project. The authors had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Disclosures

This study was supported by a research grant from GSK. However, GSK had no role in the study design, data collection, analysis, interpretation of results, or preparation of the manuscript. The authors maintained full independence in conducting this research and reporting the findings. YCW and YWC are employees of GSK. HTT, CYW, LYL, CHL, STH, FYH have no conflict of interest to report.

International Society for Pharmacoeconomics and Outcomes Research Real-World Evidence Summit 2025, ISPOR | Sep 28-30 2025 | Tokyo, Japan