



# Economic Evaluation of Sacituzumab Govitecan among Metastatic Triple-Negative Breast Cancer Patients: A Systematic Literature Review



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Authors: Shaw PD<sup>1</sup>, Ulahannan U<sup>1</sup>, Prasad J<sup>1\*</sup>

<sup>1</sup>Evalueserve, Bengaluru, India \*Presenting Author: Jagriti Prasad

## INTRODUCTION

- Metastatic triple-negative breast cancer (mTNBC) is an aggressive breast cancer subtype associated with rapid disease progression, limited therapeutic options, and poor survival outcomes, particularly in previously treated patients. [1,2]
- In the relapsed or refractory setting, commonly used chemotherapy regimens offer modest and short-duration clinical benefit, contributing to a high unmet medical need in this population. [2]
- Sacituzumab govitecan (SG), a Trop-2-targeted antibody-drug conjugate delivering an SN-38 payload, has demonstrated statistically significant improvements in progression-free and overall survival compared with physician’s-choice chemotherapy in phase 3 trials. [1,2]
- Based on these clinical outcomes, SG has been introduced into treatment pathways for patients with previously treated mTNBC across multiple healthcare settings. [1]
- The adoption of high-cost antibody-drug conjugates such as SG has important implications for healthcare budgets, particularly in advanced cancer settings where treatment duration may be prolonged and subsequent lines of therapy remain common. [1,2]
- As healthcare systems increasingly emphasize value-based oncology care, synthesizing existing economic evaluations of SG is necessary to contextualize its clinical benefits alongside cost and resource implications, supporting informed reimbursement and policy decisions.

## OBJECTIVES

This study aimed to provide a comprehensive review on cost-effectiveness of sacituzumab govitecan (SG) in patients with metastatic triple-negative breast cancer (mTNBC).

## METHODS

- Data source:**
  - PubMed, Medline, EMBASE, and DOAJ
  - Supplementary open search on Google Scholar and Google
- Search Period:** Inception till December 2025
- Data extraction:** Conducted by three reviewers independently
- Outcomes:** Life years (LYs) gained, quality-adjusted life-years (QALYs), incremental cost, incremental cost-effectiveness ratio (ICER), and incremental net monetary benefit (INMB)
- Quality assessment:** CHEERS checklist
- Risk of bias assessment:** ECOBIAS checklist

## RESULTS

- Eight studies reporting economic evaluations of SG were included.
- The time-horizon was 10 years in all studies, except for one which used 5-year time horizon.
- Four studies were reported from healthcare system perspective, three studies from the payer perspective, and one from both healthcare system and payer perspective.
- All QALYs and costs were discounted at an annual rate of 5% for China and 3% for US, Spain and Taiwan in the studies.

Fig 1: LYs gained due to SG reported across countries

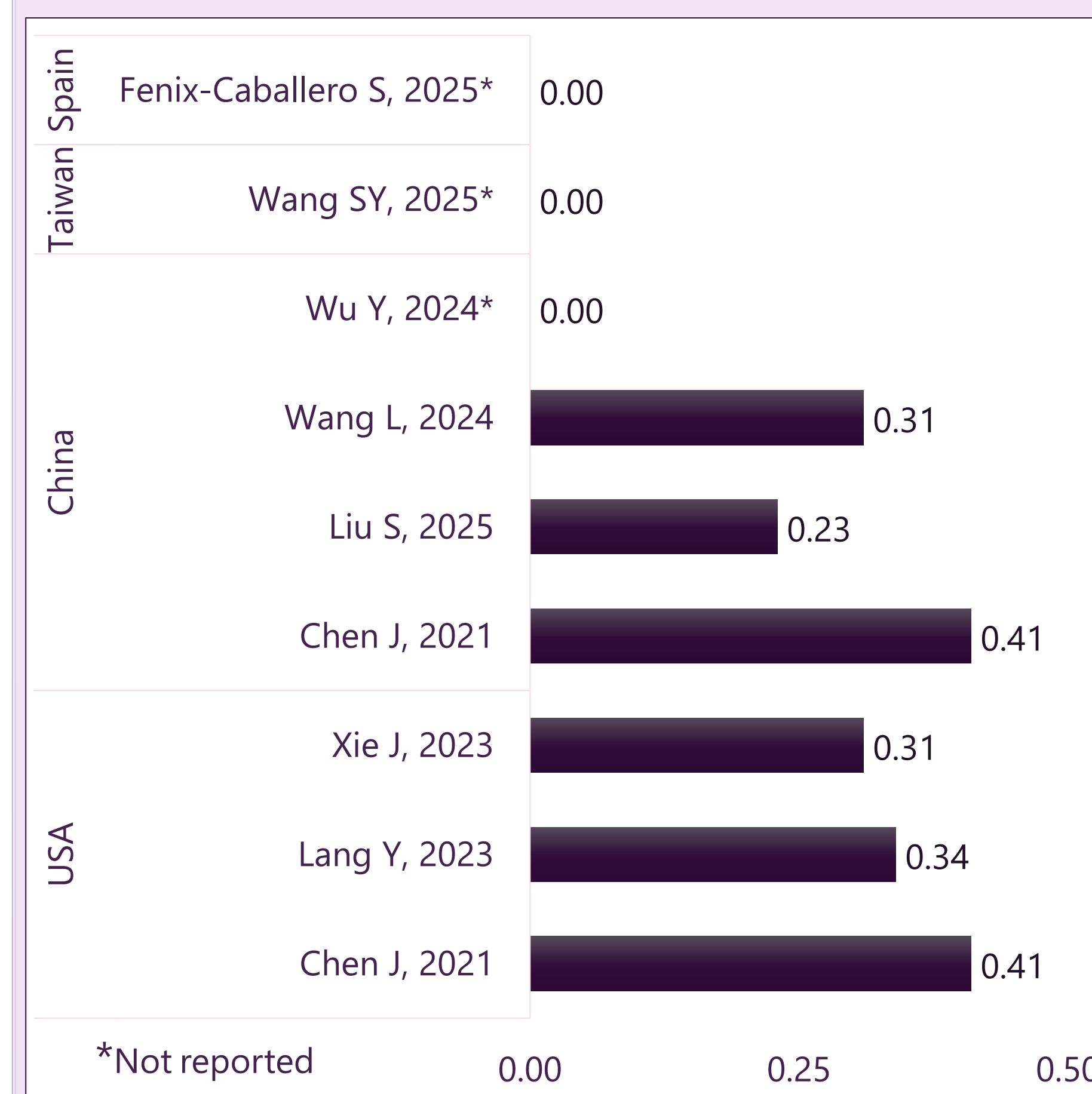


Fig 2: Incremental QALY of SG reported across countries

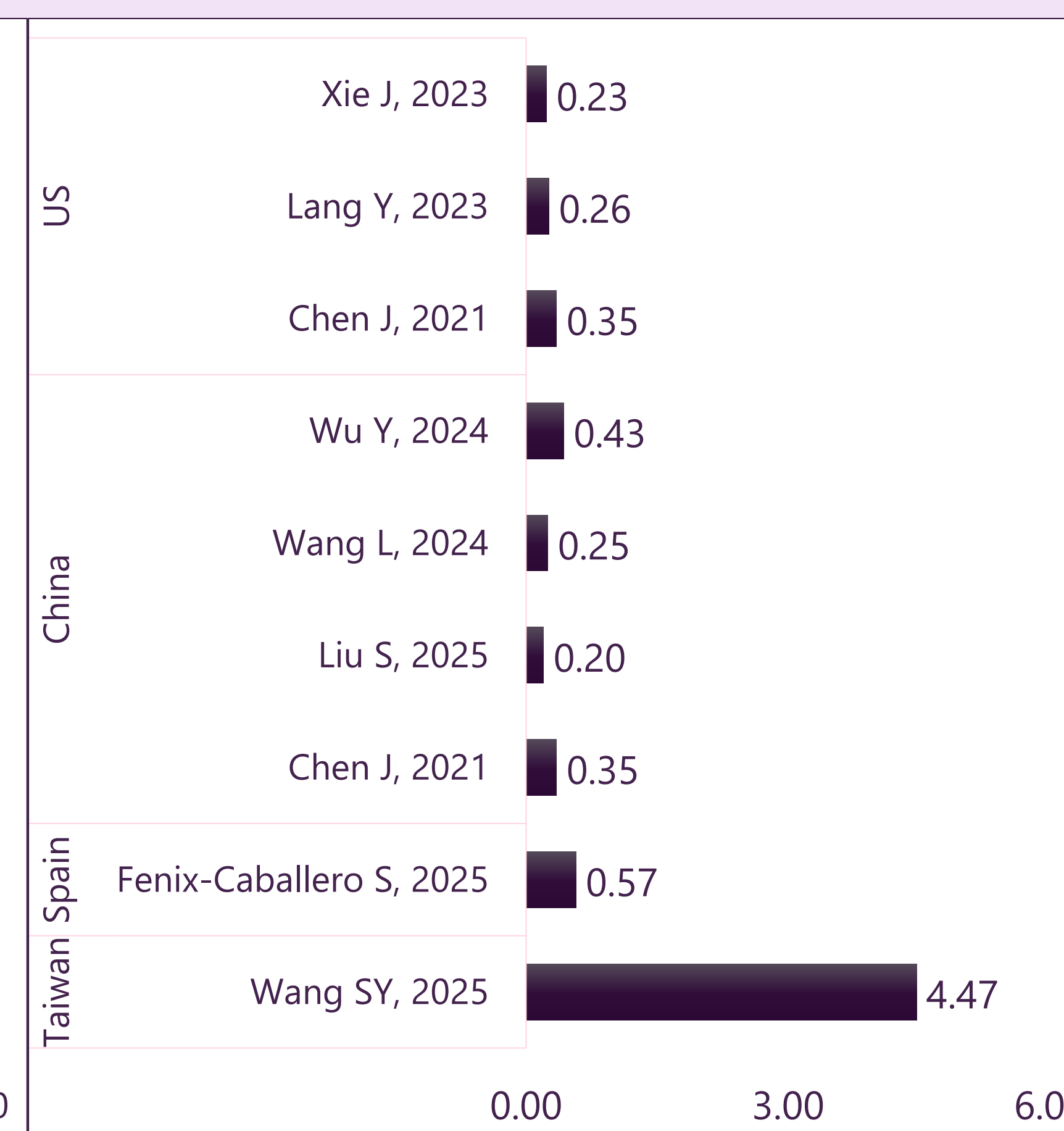


Fig 3: Incremental cost of SG reported across countries

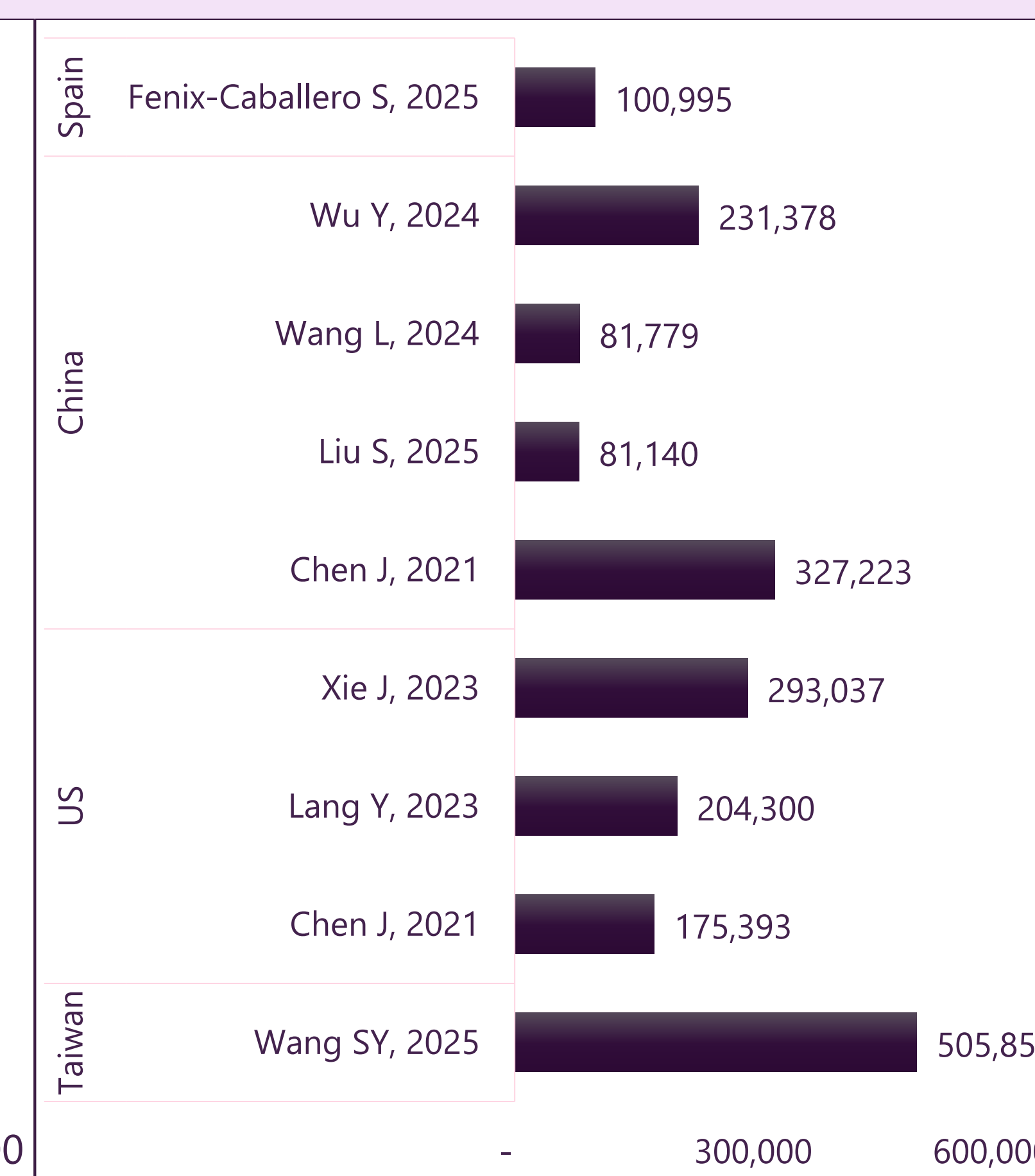


Fig 4: CHEERS 2022 Checklist

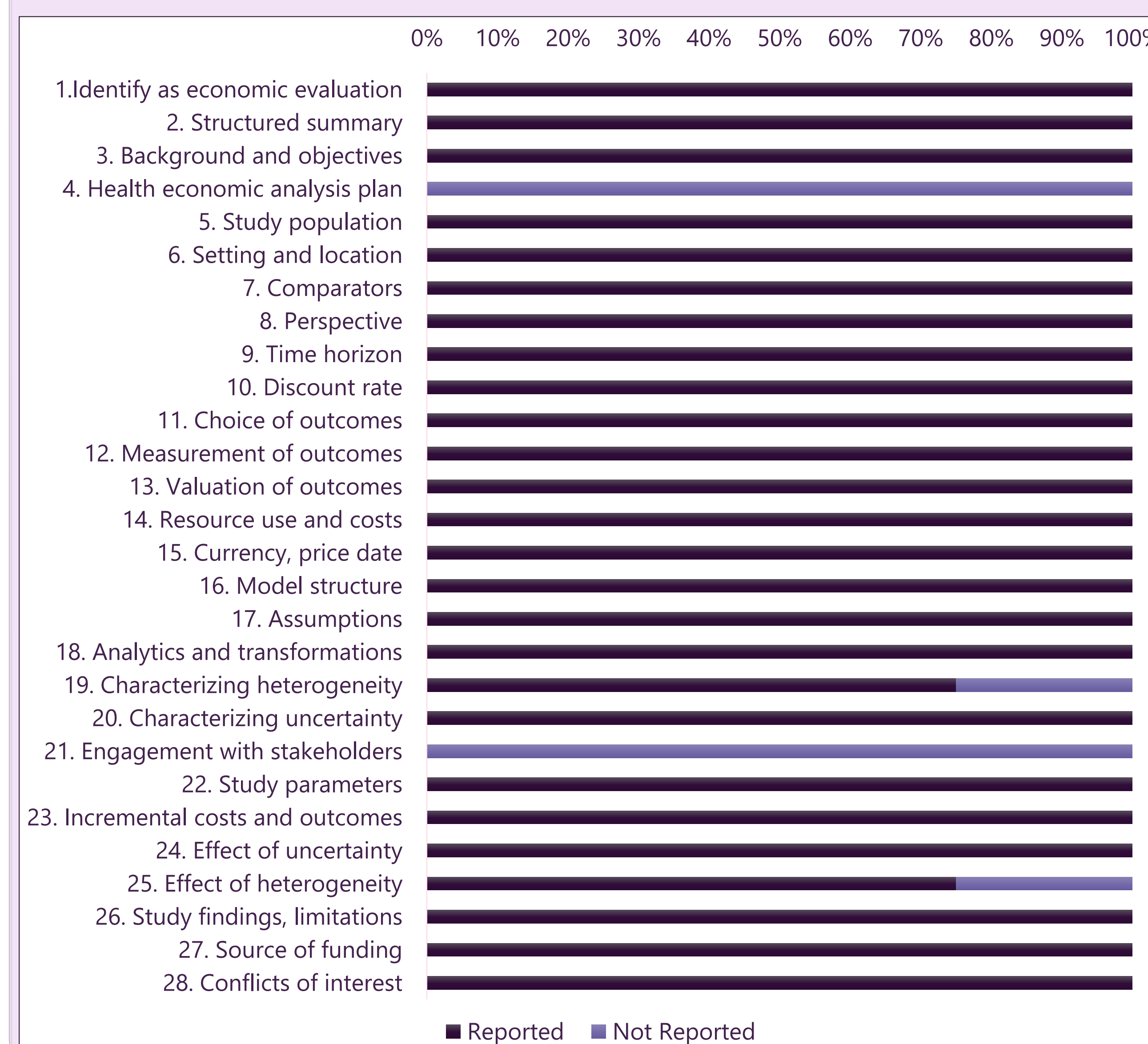
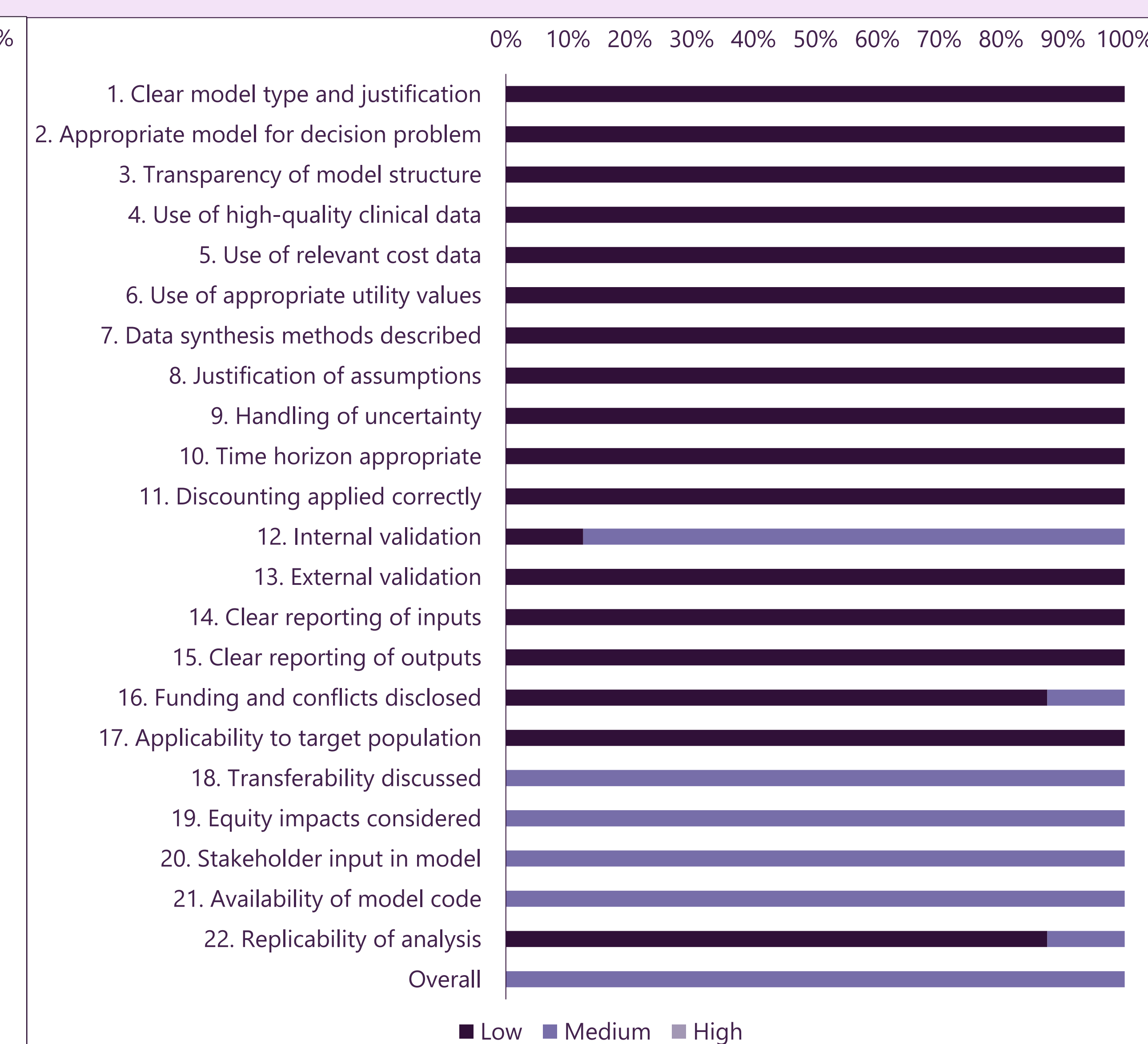


Fig 5: Risk of bias assessment



- The median life-years gained was 0.33 (range: 0.23 to 0.41) years, whereas the median QALYs gained was 0.35 (0.20 to 4.47) years.
- The studies reported a median incremental cost of USD 204,299.90 (81,140.06 to 505,854.00) for SG vs chemotherapy.
- The median ICER for SG vs chemotherapy was USD 494,479.00 (113,277.00 to 1,252,295.00).
- The median INMB for SG vs chemotherapy across the studies was USD -170,171.25 (-274,723.44 to -73,073.25).
- The one-way sensitivity analyses in majority of studies reported that unit price of SG was the primary drivers of the model outcomes.
- Overall reporting quality of the included studies was high, with complete reporting for most CHEERS items; however, health economic analysis plans and stakeholder engagement were not reported in any study, and uncertainty and heterogeneity effects were incompletely reported in approximately 20% of studies.
- All the included were graded to have a “moderate” risk of bias as per the ECOBIAS checklist.

## DISCUSSION AND CONCLUSION

- This systematic review indicates that SG is consistently associated with substantial incremental costs compared with chemotherapy.
- While SG demonstrated LYs gained and QALYs, these benefits were generally modest relative to the additional costs incurred, resulting in ICERs and incremental net monetary benefits that exceeded commonly applied willingness-to-pay thresholds in most jurisdictions.
- The evidence suggests that despite clinically meaningful benefits in mTNBC, the current pricing of SG presents challenges for cost-effective adoption, emphasizing the need for pricing, reimbursement, or access strategies aligned with value-based oncology decision-making.

## KEY TAKEAWAY

Synthesized economic evidence indicates that although SG provides **clinically meaningful benefits** in pretreated mTNBC, its **high acquisition cost** consistently limits cost-effectiveness across settings, with **drug price emerging as the dominant driver of value**.

## REFERENCES

- [1] Carey LA, et al. Sacituzumab govitecan as second-line treatment for metastatic triple-negative breast cancer—phase 3 ASCENT study subanalysis. NPJ Breast Cancer. 2022 Jun 9;8(1):72.
- [2] Bardia A, et al. Sacituzumab govitecan in metastatic triple-negative breast cancer. New England journal of medicine. 2021 Apr 22;384(16):1529-41.