INPLASY

Clinical Benefit and Toxicity of mirvetuximab soravtansine in FRα-Positive, Platinum-Resistant Ovarian Cancer：A systematic review and Single-Arm meta-analysis

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ADMINISTRATIVE INFORMATION

Support - No.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 March 2026 and was last updated on 15 March 2026.

INTRODUCTION

Review question / Objective P：patients with Platinum-Resistant Ovarian Cancer
I：Mirvetuximab soravtansine-gynx
C：Single chemotherapy or Mirvetuximab soravtansine-gynx in combination with other drugs
O：overall response rate (ORR), duration of response(DOR), progression-free survival (PFS), overall survival (OS), and treatment-related adverse events (TRAEs)
S：RCT、Cohort study, case-control, Single-arm study or cross-sectional.

Condition being studied Mirvetuximab soravtansine-gynx (MIRV) is a novel antibody-drug conjugate targeting folate receptor alpha (FRα), which is overexpressed in epithelial ovarian cancer (EOC),have emerged as a highly promising systemic option in the treatment of recurrent ovarian cancer.

METHODS

Participant or population Patients with Platinum-Resistant Ovarian Cancer.

Intervention Mirvetuximab soravtansine.

Comparator Single chemotherapy or Mirvetuximab soravtansine in combination with other drugs.

Study designs to be included RCT、Cohort study, case-control, Single-arm study or cross-sectional.

Eligibility criteria Patients with FRa-positive expression（immunohistochemistry ≧ 25% of tumor cells with at least 2+ staining intensity）and histologically confirmed EOC, primary peritoneal cancer, or fallopian tube cancer that progression within 6 months of last platinum treatment; intervention: patients were treated with MIRV, or in

combination with bevacizumab, either with single-agent chemotherapy.

Information sources PubMed, Embase, the Cochrane Library, Web of Science databases and Clinicaltrials (https://clinicaltrials.gov/).

Main outcome(s) overall response rate (ORR), duration of response(DOR), progression-free survival (PFS), overall survival (OS), and treatment-related adverse events (TRAEs).

Quality assessment / Risk of bias analysis The MINORS Methodological items.

Strategy of data synthesis Statistical analyses were performed using R (version 4.5.1) and RStudio (version 2025.05.1+513).

Subgroup analysis Based on the number of treatment lines or the expression of folate receptors.

Sensitivity analysis Sensitivity analyses were conducted by omitting one study at a time to assess its impact on the combined results.

Language restriction English.

Country(ies) involved China - Hubei Cancer Hospital, Tongji Medical College, Huazhong University of Science and Technology.

Keywords Platinum-Resistant, Ovarian Cancer, Mirvetuximab soravtansine, FRα-Positive.

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