

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## Prognostic Factor For Advanced/ Recurrent Ovarian Cancer Patients Undergoing Cytoreductive Surgery (CRS) with Hyperthermic Intraperitoneal Chemotherapy (HIPEC): Systematic Review and Meta-analysis

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**Review question / Objective:** Patients: advanced/recurrent ovarian cancer patients undergoing Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC) outcomes: progress of disease or death the purpose is to investigate all the possible prognostic factors of these outcomes.

**Condition being studied:** CRS combined with HIPEC has shown initial results in the treatment of advanced / recurrent ovarian cancer. Large studies have confirmed that CRS combined with HIPEC can improve the survival time of patients with advanced / recurrent ovarian cancer. However, the prognostic factors affecting the efficacy of CRS combined with HIPEC in patients with advanced / recurrent ovarian cancer are still controversial and lack consensus. By summarizing all previous studies on CRS combined with HIPEC in the treatment of advanced / recurrent ovarian cancer, we hope this paper can be helpful for surgeons to screen patients before conducting CRS combined with HIPEC.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 March 2022 and was last updated on 30 March 2022 (registration number INPLASY202230169).

### INTRODUCTION

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## METHODS

**Search strategy:** We will search articles in three electronic database including PubMed, EMBASE and Cochrane Library. All the English publications until 28 March 2022 will be searched without any restriction of countries or article type. Reference list of all selected articles will independently screened to identify additional studies left out in the initial search.

**Participant or population:** Advanced/recurrent ovarian cancer patients undergoing Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC) will be included. And the studies of selected populations (as the aged patients or patients with ascites) will be excluded.

**Intervention:** The purpose of the this article is to investigate the prognostic factors, which does not have specific interventions.

**Comparator:** The purpose of the this article is to investigate the prognostic factors, which does not have specific comparator.

**Study designs to be included:** prospective or retrospective cohort studies will be included.

**Eligibility criteria:** (1) Patients with FIGO stage III or above or recurrent ovarian cancer were included in the study. (2) All patients underwent the CRS and HIPEC. (3) The article should provide hazard ratio(HR) value with 95% confidence interval or provide data that can calculate HR and its

standard error.(4) Multivariate analysis or K-M survival curve for at least one prognostic factor was provided.

**Information sources:** Electronic database including PubMed, EMBASE and Cochrane Library.

**Main outcome(s):** Overall survival (OS) and disease-free survival (DFS).

**Data management:** Two authors will independently extract data. Any disagreement will be resolved by discussion until consensus is reached or by consulting a third author. We use the endnote to manage the records and data.

**Quality assessment / Risk of bias analysis:** Researchers will use the Newcastle-Ottawa scale to evaluate the cohort studies included in the meta-analysis, with only literature with a quality rating of 5 or above being included in the follow-up study. In addition, we will use the Quality In Prognosis Studies (QUIPS) tool to evaluate the included literature in order to better classify the included literature. Large heterogeneity may result from differences in chemotherapy regimens and the number of people included in each study, which can be explained by sensitivity analysis and subgroup analysis.

**Strategy of data synthesis:** Meta-analyses were performed using Review Manager 5.4.1 software. Forest plots are used to describe the combined HR values and 95% confidence intervals.

**Subgroup analysis:** Subgroup analysis will be made by number of patients, race, chemotherapy regimen and quality score of studies respectively.

**Sensitivity analysis:** First, we can find sources of heterogeneity by removing studies one by one, And then explain the heterogeneity by subgroup analysis. Finally use the cutting and filling methods for further analysis.

**Language:** English only.

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**Country(ies) involved:** China.

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ovary cancer.

**Contributions of each author:**

**Author 1 - Xiaoxu Liu -** Author 1 drafted the manuscript.

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**Author 3 - Ziming Gao -** The author contributed to help improve and revise the manuscript.

**Author 4 - Kai Li -** The author read, provided feedback and approved the final manuscript.