

# INPLASY

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## First-line treatment of extensive-stage small cell lung cancer with immune checkpoint inhibitors acting on different targets: a systematic review and network meta-analysis

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## ADMINISTRATIVE INFORMATION

**Support** - None.

**Review Stage at time of this submission** - The review has not yet started.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202520073

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 February 2025 and was last updated on 14 February 2025.

## INTRODUCTION

**Review question / Objective** P: Patients with extensive-stage small cell lung cancer  
I: Different immune checkpoint inhibitors acting on PD-1, PD-L1 or CTLA-4; C: Chemotherapy; O: Progression-free survival (PFS), overall survival (OS), objective response rate (ORR), and safety; S: Systematic review and network meta-analysis.

**Condition being studied** Extensive-stage small cell lung cancer.

## METHODS

**Search strategy** Databases: Pubmed, Cochrane library, Web of science, and Embase  
Examples of search terms and search formulas: (ipilimumab OR tremelimumab OR Nivolumab OR pembrolizumab OR atezolizumab OR durvalumab OR avelumab dostarlimab OR camrelizumab OR

sintilimab OR toripalimab OR tislelizumab OR penpulimab OR zimberelimab OR sugemalimab OR envafohimab OR cemiplimab OR relatlimab OR retifanlimab OR pucotenlimab OR adebrehimab OR serplulimab OR cadonilimab OR cosibelimab OR enlonstobart OR iparomlimab OR tuvonralimab OR ivonescimab OR socazolimab OR benmelstobart OR tagitanlimab):ti,ab,kw AND (random\*):ti,ab,kw AND ("small cell lung cancer"):ti,ab,kw NOT (non):ti,ab,kw.

**Participant or population** Patients with extensive-stage small cell lung cancer who have not received prior systemic anti-tumour therapy.

**Intervention** First-line treatment must consist of platinum-containing two-agent chemotherapy and only one immune checkpoint inhibitor.

**Comparator** Platinum-containing two-agent chemotherapy.

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**Study designs to be included** Phase 2 or 3 randomized, controlled clinical trials with results reporting at least one of progression-free survival or overall survival. Results of phase 2 or 3 randomized, controlled clinical trials reporting at least one of progression-free survival or overall survival.

Author 3 - Yang Wang.  
Author 4 - Dazhong Chen.  
Author 5 - Hong-Li Zhao.

**Eligibility criteria** No restriction on the language in which the clinical trial is published. Case reports, retrospective studies, single-arm trials, reviews, meta-analyses, letters, cost-effectiveness analysis, patient-reported outcome, and editorials will be excluded.

**Information sources** Databases: Pubmed, Cochrane library, Web of science, and Embase. Because clinical study registry information and oncology congress abstracts can be searched in the cochrane library database, no searches were performed on sites such as ClinicalTrials.gov, International Clinical Trials Registry Platform, American Society of Clinical Oncology (ASCO), European Society for Medical Oncology (ESMO), or American Association for Cancer Research (AACR).

**Main outcome(s)** Hazard ratios for progression-free survival and overall survival.

**Quality assessment / Risk of bias analysis** Sterne JAC, Savović J, Page MJ, Elbers RG, Blencowe NS, Boutron I, Cates CJ, Cheng H-Y, Corbett MS, Eldridge SM, Hernán MA, Hopewell S, Hróbjartsson A, Junqueira DR, Jüni P, Kirkham JJ, Lasserson T, Li T, McAleenan A, Reeves BC, Shepperd S, Shrier I, Stewart LA, Tilling K, White IR, Whiting PF, Higgins JPT. RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ* 2019; 366: l4898.

**Strategy of data synthesis** Statistical analysis will be conducted using R (version 4.2.2) and R Studio, using `gemtci`, `rjags`, and `metafor` packages.

**Subgroup analysis** None.

**Sensitivity analysis** The sensitivity analysis was based on a Phase II study.

**Country(ies) involved** China.

**Keywords** immune checkpoint inhibitor; PD-1; PD-L1; CTLA-4; network meta-analysis.

#### **Contributions of each author**

Author 1 - Meng Li.  
Author 2 - Yu-Zhu Chen.