

# INPLASY PROTOCOL

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submission:** The review has  
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**Conflicts of interest:**  
None declared.

## A systematic review and meta- analysis of high-frequency prescription of Zhigancao decoction combined with conventional western medicine in the treatment of chronic heart failure

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**Review question / Objective:** This article will conduct a systematic evaluation and Meta-analysis of Zhigancao decoction combined with conventional Western medicine in the treatment of chronic heart failure, to scientifically evaluate the characteristic efficacy of combined Chinese and Western medicine. **Participants:** The subjects were clearly diagnosed as chronic heart failure. **Interventions:** Zhigancao decoction combined with conventional Western medicine methods for the treatment of chronic heart failure. **Comparisons:** The control group was treated with conventional Western medicine methods. **Outcomes:** Total clinical efficacy, left ventricular ejection fraction (LVEF), left ventricular end-diastolic diameter (LVEDd), B-type natriuretic peptide (BNP), 6-minute walk test (6MWT). The outcome indicators include at least one of the five outcome indicators. This article will conduct a systematic evaluation and Meta-analysis of Zhigancao decoction combined with conventional Western medicine in the treatment of chronic heart failure, to scientifically evaluate the characteristic efficacy of combined Chinese and Western medicine.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 June 2021 and was last updated on 26 June 2021 (registration number INPLASY202160098).

### INTRODUCTION

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Meta-analysis of Zhigancao decoction combined with conventional Western medicine in the treatment of chronic heart failure, to scientifically evaluate the

characteristic efficacy of combined Chinese and Western medicine. **Participants:** The subjects were clearly diagnosed as chronic heart failure. **Interventions:** Zhigancao decoction combined with conventional Western medicine methods for the treatment of chronic heart failure. **Comparisons:** The control group was treated with conventional Western medicine methods. **Outcomes:** Total clinical efficacy, left ventricular ejection fraction (LVEF), left ventricular end-diastolic diameter (LVEDd), B-type natriuretic peptide (BNP), 6-minute walk test (6MWT). The outcome indicators include at least one of the five outcome indicators. This article will conduct a systematic evaluation and Meta-analysis of Zhigancao decoction combined with conventional Western medicine in the treatment of chronic heart failure, to scientifically evaluate the characteristic efficacy of combined Chinese and Western medicine.

**Condition being studied:** We used manual and computer aided search methods, the search scope includes CNKI, WANFANG, VIP, SinoMed, Web of Science, PubMed, Cochrane Library, and the search content is the clinical randomized control of Zhigancao decoction combined with conventional Western medicine in the treatment of chronic heart failure Trials (RCTs), the search period is the establishment of the database-January 29, 2021. The literature was managed and screened by EndNote software; the quality of the included literature was evaluated according to the modified Jadad scale, and the risk bias was assessed using the Cochrane tool; the results of the included studies were analyzed using the Review Manager 5.3 software; the sources of heterogeneity between the studies were analyzed using Stata16 .0 software for sensitivity analysis.

## METHODS

**Participant or population:** In the original study, the subjects were clearly diagnosed as chronic heart failure; The specific

diagnostic criteria, syndrome types are not limited, race, nationality, and gender are not limited; and the age is required to be greater than 18 years old.

**Intervention:** The treatment group was treated with Zhigancao decoction on the basis of the control group's conventional Western medicine methods.

**Comparator:** The control group was treated with conventional Western medicine methods.

**Study designs to be included:** Clinical randomized controlled trials (RCTs) of Zhigancao decoction combined with conventional Western medicine methods for the treatment of chronic heart failure published in domestic and foreign journals.

**Eligibility criteria:** Clinical randomized controlled trials (RCTs) of Zhigancao decoction combined with conventional Western medicine methods for the treatment of chronic heart failure published in domestic and foreign journals.

**Information sources:** Computer and manual search of 7 Chinese and English databases, the search scopes are: China Journal Full-text Database of China National Knowledge Infrastructure (CNKI), Wanfang Data Knowledge Service Platform (WANFANG), VIP Chinese Science and Technology Journal Full-text Database (VIP), Chinese Biomedical Literature Service System (SinoMed), Web of Science (WOS), PubMed, Cochrane Library.

**Main outcome(s):** Total clinical efficacy, left ventricular ejection fraction (LVEF), left ventricular end-diastolic diameter (LVEDd), B-type natriuretic peptide (BNP), 6-minute walk test (6MWT). The outcome indicators include at least one of the five outcome indicators.

**Quality assessment / Risk of bias analysis:** The quality of the included literature was evaluated according to the modified Jadad scale, and the risk bias was assessed using the Cochrane tool.

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**Strategy of data synthesis:** RevMan5.3 statistical software was used for data analysis, and  $P \leq 0.1$ ,  $I^2 < 50\%$ , using fixed effects model for Meta analysis;  $P \leq 0.1$ ,  $I^2 \geq 50\%$ , using random effects model for Meta analysis. The main source of heterogeneity was observed by sensitivity analysis. Binary variables use relative risk (RR) to represent effect analysis statistics; continuous variables use weighted mean difference (WMD) to represent effect analysis statistics, and 95% confidence intervals are used as effect indicators for both types of variables.

**Subgroup analysis:** None.

**Sensitivity analysis:** Sensitivity analysis of 4 outcome indicators includes left ventricular ejection fraction (LVEF), left ventricular end-diastolic diameter (LVEDd), B-type natriuretic peptide (BNP), and 6-minute walk test (6MWT). These sources of heterogeneity were related to the period of the disease between studies, the dosage of Zhigancao decoction, and the number of samples in the experiment.

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

**Keywords:** Zhigancao Decoction; Chronic Heart Failure; Systematic Review; Meta Analysis.

**Contributions of each author:**

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