

# INPLASY PROTOCOL

To cite: Zhao et al. Efficacy and safety of Shenmai injection in patients with chronic heart failure: a systematic review and meta-analysis. Inplasy protocol 2021120099. doi: 10.37766/inplasy2021.12.0099

Received: 22 December 2021

Published: 22 December 2021

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**Support:** None.

**Review Stage at time of this submission:** Data analysis.

**Conflicts of interest:**  
None declared.

## Efficacy and safety of Shenmai injection in patients with chronic heart failure: a systematic review and meta-analysis

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**Review question / Objective:** To perform a systematic review and meta-analysis to assess the efficacy and safety of Shenmai injection as adjuvant treatment for chronic heart failure.

**Condition being studied:** Chronic heart failure.

**Information sources:** PubMed, Embase, the Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Database, and SinoMed.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 December 2021 and was last updated on 22 December 2021 (registration number INPLASY2021120099).

### INTRODUCTION

**Review question / Objective:** To perform a systematic review and meta-analysis to assess the efficacy and safety of Shenmai injection as adjuvant treatment for chronic heart failure.

**Condition being studied:** Chronic heart failure.

### METHODS

**Participant or population:** patients diagnosed as CHF with NYHA classification from I to IV.

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**Intervention:** SMI as a complement to the standard treatments for CHF.

**Comparator:** Standard treatments alone.

**Study designs to be included:** Published randomized controlled trials (RCTs).

**Eligibility criteria:** The detailed inclusion criteria were summarized using PICOS approach (patients, intervention, comparisons, outcome, and study design type).

**Information sources:** PubMed, Embase, the Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Database, and SinoMed.

**Main outcome(s):** The primary outcomes included the clinical effective rate and LVEF level. The clinical effective rate was calculated by the following formula: (number of remarkable recovery participants + number of basic recovery participants)/total number of participants × 100%.

**Additional outcome(s):** The secondary outcomes included BNP level and the potency of lengthening the distance of 6-min walk test (6MWT), and adverse events.

**Quality assessment / Risk of bias analysis:** Cochrane risk of bias tool.

**Strategy of data synthesis:** The statistical analysis was performed by Stata 12 (Stata Corp, College Station, TX). For dichotomous values, the risk ratios (RRs) and its 95% confidence intervals (CIs) were calculated. For continuous variables, weighted mean differences (WMDs) and its 95% CIs were calculated.

**Subgroup analysis:** None.

**Sensitivity analysis:** None.

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

**Keywords:** chronic heart failure; Shenmai injection; Systematic review; Meta-analysis.

**Contributions of each author:**

Author 1 - Guozhen Zhao.

Author 2 - Chunyu Liu.

Author 3 - Yanbo Wang.

Author 4 - Bo Li.