

# INPLASY PROTOCOL

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

**Conflicts of interest:**  
None declared.

## INTRODUCTION

**Review question / Objective:** X P:According to the diagnostic criteria of hypertension, systolic blood pressure $\geq$ 140mmHg and / or diastolic blood pressure $\geq$ 90mmHg I:The treatment group was treated with Chinese herbal formula combined with calcium

## Chinese herbal medicine formula combined with calcium antagonist in the treatment of hypertension: a systematic review and meta-analysis

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**Review question / Objective:** P:According to the diagnostic criteria of hypertension, systolic blood pressure $\geq$ 140mmHg and / or diastolic blood pressure $\geq$ 90mmHg I:The treatment group was treated with Chinese herbal formula combined with calcium antagonist C:The control group was treated with calcium antagonist alone. O:The primary outcome measures of SBP and DBP, and secondary outcomes of antihypertensive effect and Adverse events.

**Information sources:** We searched 6 databases included PubMed, Cochrane library, the Chinese National Knowledge Infrastructure (CNKI), the Chinese Scientific Journal Database (VIP), the Chinese Biomedical Literature Database (CBM), and the Wanfang Database.

**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 INPLASY202160100).

antagonist C:The control group was treated with calcium antagonist alone. O:The primary outcome measures of SBP and DBP, and secondary outcomes of antihypertensive effect and Adverse events.

**Condition being studied:** Hypertension is a clinical syndrome characterized by increased systemic arterial pressure and

peripheral arteriole resistance, accompanied by functional or organic damage to the heart, brain, kidney and other organs, and is a major risk factor for the development of cardiovascular diseases (CVD). Research shows that the global risk of high blood pressure in 2010 adults reached 31.1% (95% CI, 30.0% to 32.2%) , The number of deaths of Chinese patients with cardiovascular disease (CVD) due to lack of timely control of hypertension has reached 750,000 per year . China cardiovascular disease center survey in 2018 showed that the total number of Chinese patients with cardiovascular disease, 290 million, of which 245 million patients suffering from hypertension, and is expected to reach 1.56 billion in 2025, the global number of cases (15.4 1.58 billion). At present, western medicine is still the main treatment for hypertension, but due to possible side effects, patients' compliance with medication has been affected to a certain extent, so new treatment plans still need to be explored.

## METHODS

**Participant or population:** According to the diagnostic criteria of hypertension, systolic blood pressure  $\geq 140$ mmHg and / or diastolic blood pressure  $\geq 90$ mmHg.

**Intervention:** The treatment group was treated with Chinese herbal formula combined with calcium antagonist.

**Comparator:** The control group was treated with calcium antagonist alone.

**Study designs to be included:** Only RCTs assessing the effects of Chinese herbal medicine formula for participants with hypertension were considered in this review.

**Eligibility criteria:** Only RCTs assessing the effects of Chinese herbal medicine formula for participants with hypertension were considered in this review.

**Information sources:** We searched 6 databases included PubMed, Cochrane

library, the Chinese National Knowledge Infrastructure (CNKI), the Chinese Scientific Journal Database (VIP), the Chinese Biomedical Literature Database (CBM), and the Wanfang Database.

**Main outcome(s):** Total clinical efficacy, SDP, BP, Adverse events.

**Quality assessment / Risk of bias analysis:** The risk of bias of each study was independently evaluated by 2 reviewers according to the Cochrane Collaboration's tool.

**Strategy of data synthesis:** RevMan5.3 statistical software was used for data analysis, and  $P < 0.1$ ,  $I^2 < 50\%$ , 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:** In order to further clarify the source of heterogeneity, subgroup analysis was conducted according to the different types of administration.

**Sensitivity analysis:** Sensitivity analysis of 2 outcome indicators includes SBP, DBP.

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

**Keywords:** hypertension, traditional Chinese medicine, calcium antagonist, systematic evaluation, Meta-analysis.

### Contributions of each author:

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