# INPLASY

# Network Meta-analysis of Different Efficacy Combinations of Traditional Chinese Medicine Compounds Combined With Conventional Western Medicines in the Treatment of Coronary Heart Disease Combined with Depression

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## ADMINISTRATIVE INFORMATION

**Support -** No.

**Review Stage at time of this submission -** Completed but not published.

**Conflicts of interest -** None declared.

**INPLASY registration number:** INPLASY202440040

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 08 April 2024 and was last updated on 08 April 2024.

## INTRODUCTION

Review question / Objective The aim of this study was to examine the differences in the efficacy of different efficacy combinations of traditional Chinese medicine combinations in combination with conventional western medicines in the treatment of coronary heart disease combined with depression, and the study method chosen was a randomized controlled trial.

**Condition being studied** Coronary atherosclerotic heart disease (Coronary Heart Disease, CHD) is a heart disease caused by atherosclerosis of coronary arteries, which leads to narrowing of the lumen of the blood vessel or even occlusion, thus causing myocardial ischemia, hypoxia or necrosis. China Cardiovascular Health and Disease Report 2021 pointed out that the number of people suffering from CHD in China is about 11.39 million, and the mortality rate of CHD has been increasing year by year since 2012 , which is chronic and recurring, and seriously affects the quality of patients' survival and life and health .

Depression is a mental disorder that seriously jeopardizes the physical and mental health of human beings, mainly manifested as depressed mood, reduced volitional activity, cognitive impairment, etc., and in severe cases, psychotic symptoms such as hallucinations may occur, which seriously affects the physical and mental health and social function of patients . Several epidemiologic studies have found that the proportion of patients with coronary heart disease who experience anxiety and depression can be as high as 45%-72% and 10%-63%, respectively . Meanwhile, several studies have confirmed that anxiety and depression are significantly associated with the development of coronary heart disease and are important risk factors for coronary heart disease and cardiac death.

## METHODS

**Participant or population** Patients with coronary heart disease combined with depression.

**Intervention** Combination of traditional Chinese medicines with different combinations of efficacy with conventional western medicines.

**Comparator** Western medicine alone.

**Study designs to be included** RCT.

**Eligibility criteria** Exclusion criteria: duplicate publications, conference papers, case reports, animal studies, or reviews that provide abstracts only, interventions that include nonpharmacologic interventions such as acupuncture and psychotherapy, literature that is not available in full text, experimental groupings of ≥3, noncompliance with outcome metrics, and controls that include antidepressants and other nonconventional Western treatments for coronary artery disease.

**Information sources** CNKI、Wanfang、VIP、SinoMed、PubMed、Web of Science、 EMbase、Cochrane Library.

**Main outcome(s)** ①Evaluation of the efficacy of clinical effectiveness ②Hamilton Depression Scale (HAMD) score ③Electrocardiogram efficacy ④Angina efficacy ⑤Chinese medicine evidence efficacy ⑥Efficacy of depression-related symptoms.

**Quality assessment / Risk of bias analysis** ROB 2.0.

**Strategy of data synthesis** Net Meta-analysis was performed using Stata 16.0 software. Relative risk was used as the effect analysis index for dichotomous variables, and mean difference was used as the effect analysis index for continuous variables, and 95% confidence intervals were calculated and described, and the difference between the groups was considered to be statistically significant if the 95% CI for dichotomous variables did not contain a 1 or if the 95% CI for continuous variables did not contain a 0. The area under the cumulative probability ranking curve was used to rank the efficacy of different interventions, and the larger the area under the curve, the more effective the intervention was, and a "comparison-correction" funnel plot was drawn to test for publication bias in the included literature.

**Subgroup analysis** No.

**Sensitivity analysis** No.

**Country(ies) involved** China.

**Contributions of each author**
Author 1 - WANG Kexin.
Author 2 - ZHANG Shaoqiang.