

# INPLASY PROTOCOL

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## Conflicts of interest:

None declared.

## INTRODUCTION

**Review question / Objective:** Chronic kidney disease (CKD) is a clinical syndrome caused by primary or secondary glomerular disease, and renal vascular injury resulting in renal structure and function impairment, resulting in metabolite retention, electrolyte

and acid-base metabolism disorders, and systemic dysfunction. CKD is a common clinical chronic disease, which seriously affects the physical and mental health and quality of life of patients. Acupuncture combined with Chinese herbal medicine has been clinically proven to slow down the progression of chronic kidney

## Efficacy and safety of acupuncture combined with traditional Chinese medicine in the treatment of chronic kidney disease A protocol for a systematic review and meta-analysis

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**Review question / Objective:** Chronic kidney disease (CKD) is a clinical syndrome caused by primary or secondary glomerular disease, and renal vascular injury resulting in renal structure and function impairment, resulting in metabolite retention, electrolyte and acid-base metabolism disorders, and systemic dysfunction. CKD is a common clinical chronic disease, which seriously affects the physical and mental health and quality of life of patients. Acupuncture combined with Chinese herbal medicine has been clinically proven to slow down the progression of chronic kidney disease. However, we found no meta-analysis of their synergy. Therefore, we intend to conduct a systematic review and meta-analysis of the efficacy and safety of acupuncture combined with traditional Chinese medicine in the treatment of chronic kidney disease.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 November 2022 and was last updated on 24 November 2022 (registration number INPLASY2022110120).

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**Condition being studied:** Chronic kidney disease (CKD) is a clinical syndrome caused by primary or secondary glomerular disease, and renal vascular injury resulting in renal structure and function impairment, resulting in metabolite retention, electrolyte and acid-base metabolism disorders, and systemic dysfunction. CKD is a common clinical chronic disease, which seriously affects the physical and mental health and quality of life of patients. Acupuncture combined with Chinese herbal medicine has been clinically proven to slow down the progression of chronic kidney disease. However, we found no meta-analysis of their synergy. Therefore, we intend to conduct a systematic review and meta-analysis of the efficacy and safety of acupuncture combined with traditional Chinese medicine in the treatment of chronic kidney disease.

## METHODS

**Participant or population:** Confirmed chronic kidney disease.

**Intervention:** Patients in the intervention group were treated with conventional treatment plus acupuncture combined with traditional Chinese medicine.

**Comparator:** Routine symptomatic treatment.

**Study designs to be included:** Randomized controlled trial.

**Eligibility criteria:** Participants were older than 18 years of age; The type of study was a randomized controlled trial.

**Information sources:** PubMed, Embase, Cochrane Library, China Biomedical Documentation Database (CBM), China Science Journal Database (VIP), Wanfang

Database (CNKI), China National Knowledge Infrastructure (CNKI), the World Health Organization (WHO).

**Main outcome(s):** Overall efficacy (total effective rate).

**Additional outcome(s):** Total 24-hour urine protein (g/24 hours); Blood creatinine (mmol/L); Blood urea nitrogen (mmol/L); Endogenous creatinine clearance rate.

**Quality assessment / Risk of bias analysis:** Two investigators will use the Cochrane Risk of Bias assessment tool to independently assess the methodological quality of the inclusion of the research. The following aspects will be evaluated: randomized sequence generation methods, blinding of subjects and intervention provider, allocation concealment, blinding of outcome assessor, integrity of outcome data, selective reporting and other biased sources. The studies included will be rated low risk of bias, high risk of bias or uncertain risk of bias based on relevant assessment criteria. If there is disagreement with the quality assessment, a third investigator is consulted.

**Strategy of data synthesis:** Statistical analysis will be performed using Revman 5.4 software from the Cochrane Collaboration. Odds Ratio (OR) was used as an effect indicator dichotomous variables, and Mean Deviation (MD) or standard mean difference (SMD) was used as an effect indicator for continuum variables. Point estimates and 95% confidence intervals for each effect indicator were given. The  $X^2$  test was used to test for heterogeneity among the study results. If  $P > 0.1$ ,  $I^2 < 50\%$ , homogeneity was good and a fixed-effects model was used; if  $P \geq 50\%$ , heterogeneity was present and a random-effects model was used. When the outcome indicator ( $\geq 10$ ) contained sufficient literature, publication bias analysis was performed using inverted funnel plots.

**Subgroup analysis:** Since potential heterogeneity may adversely affect the results of this study, we will group the

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analysis based on age,sex,intervention type, comparative indicators and outcome measures of participants.

**Sensitivity analysis:** Sensitivity analysis will be used to assess the stability of the final outcomes.If the results are found to be unstable, studies with a high risk of bias will be excluded.

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

**Keywords:** chronic kidney disease, acupuncture, herbal medicine, safety, protocol, systematic evaluation.

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