

# INPLASY

## Comparative effectiveness of traditional Chinese medicine injections combined with ACEI/ARB for diabetic nephropathy: A systematic review and network meta-analysis

INPLASY202490069

doi: 10.37766/inplasy2024.9.0069

Received: 17 September 2024

Published: 17 September 2024

### Corresponding author:

Yanbing Gong

gyb\_1226@163.com

### Author Affiliation:

Dongzhimen Hospital, Beijing  
University of Chinese Medicine.

Li, AJ; Wei, MY; Yin, D; Jiang, YJ; Wang, CR; Guo, JY; Sun, AN; Gong, YB.

### ADMINISTRATIVE INFORMATION

**Support** - 2023-JYB-JBZD-010.

**Review Stage at time of this submission** - Preliminary searches.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202490069

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 September 2024 and was last updated on 17 September 2024.

### INTRODUCTION

**Review question / Objective** The purpose of this study is to investigate the difference between the effectiveness of traditional Chinese medicine injections combined with ACEI/ARB in the treatment of diabetic nephropathy and that of ACEI/ARB alone. The population is patients with diabetic nephropathy; The intervention measures include the combination of traditional Chinese medicine injections and ACEI/ARB; The comparison is the simple use of ACEI/ARB; The outcome measures include "Total effective rate", "Urinary albumin excretion rate", "Blood Urea Nitrogen", "Serum Creatinine", "Urinary  $\beta$ -microglobulin", "Total cholesterol", "Triglyceride"; The research type is randomized controlled trials.

**Condition being studied** Diabetic nephropathy is one of the most important complications of diabetes mellitus and the leading cause of end-stage renal disease, accounting for about 50 per cent of cases in developed countries. The incidence of the disease continues to rise, which

not only burdens the global economy but also seriously affects the quality of patients' lives. Therefore, early detection and optimisation of existing treatment regimens can delay the onset and progression of DKD and reduce deaths due to the development of end-stage renal disease on renal replacement therapy.

### METHODS

**Participant or population** The subjects met the Mogensen staging diagnostic criteria for diabetes nephropathy, without gender and age restrictions.

**Intervention** The intervention was a herbal injection combined with ACEI/ARB drugs.

**Comparator** Control measures were ACEI/ARB alone.

**Study designs to be included** Randomized controlled trials.

---

**Eligibility criteria** (i) Randomized controlled trial with or without the application of blinding. (ii) The study subjects met the diagnostic criteria for Mogensen staging of diabetic nephropathy without gender or age restrictions. (iii) All literature must fulfill the appropriate outcome indicators.

**Information sources** We performed a literature search using 10 databases, including China National Knowledge Infrastructure (CNKI), the Chinese Scientific Journal database (VIP), Wanfang database, SinoMed, PubMed, Web of Science, Scopus, Embase, Cochrane Library.

**Main outcome(s)** Total effective rate; Urinary albumin excretion rate; Blood Urea Nitrogen; Serum Creatinine; Urinary  $\beta$ -microglobulin; Total cholesterol; Triglyceride.

**Quality assessment / Risk of bias analysis** The quality of included studies was assessed using the Cochrane Risk of Bias 2.0 tool, including the randomization process, deviation from the intended intervention, missing outcome data, outcome measures, choice of reported outcomes, choice of reported outcomes, and overall bias. Risk of bias was categorized as 'low risk', 'high risk', and 'some concerns'. We used the GRADE methodology across the network to provide a framework for rating the certainty of each pairwise comparison evidence as high, medium, low, or very low.

**Strategy of data synthesis** We used a random effects model and performed network meta-analysis using STATA 16.0 software.

**Subgroup analysis** None.

**Sensitivity analysis** We applied stata16.0 software to perform sensitivity analysis.

**Country(ies) involved** China.

**Keywords** traditional Chinese medicine injections; diabetic nephropathy; network meta-analysis.

#### **Contributions of each author**

Author 1 - Aijing Li.

Email: liaijing129@163.com

Author 2 - Maoying Wei.

Author 3 - Dan Yin.

Author 4 - Yiting Tang.

Author 5 - Yijia Jiang.

Author 6 - Churan Wang.

Author 7 - JingYi Guo.

Author 8 - Anning Sun.

Author 9 - Yanbing Gong.