

# INPLASY PROTOCOL

To cite: Zhu et al. Efficacy and safety evaluation of acupuncture and moxibustion in the treatment of ankylosing spondylitis: A protocol for systematic review and network meta-analysis. *Inplasy protocol* 202230149. doi: 10.37766/inplasy2022.3.0149

Received: 26 March 2022

Published: 26 March 2022

**Corresponding author:**  
Xiaoling Deng

2190223675@qq.com

**Author Affiliation:**  
Nanchang Hongdu Hospital of  
Traditional Chinese Medicine.

**Support:** National Famous  
Traditional.

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

**Conflicts of interest:**  
None declared.

## Efficacy and safety evaluation of acupuncture and moxibustion in the treatment of ankylosing spondylitis: A protocol for systematic review and network meta-analysis

Zhu, MH<sup>1</sup>; Tong, Q<sup>2</sup>; Xiong, W<sup>3</sup>; Hou, XJ<sup>4</sup>; Deng, XL<sup>5</sup>.

**Review question / Objective:** This study will use the mesh meta-analysis method to compare the impact of acupuncture and moxibustion on the effectiveness of as, and rank the acupuncture and moxibustion intervention methods according to the results, in order to select the best acupuncture and moxibustion treatment scheme for clinic.

**Condition being studied:** At present, the guidelines propose that the drugs for the clinical treatment of as include NSAIDs, DMARDs, biological agents, etc., but the clinical efficacy is often poor. Patients still have symptoms such as stiffness and discomfort of the waist and back, fatigue and other symptoms, and the side effects of drugs are significant, which will cause a variety of adverse drug reactions. Therefore, in the case of routine treatment of Western medicine, seeking alternative and complementary therapies that can alleviate patients' symptoms, reduce patients' concomitant drug burden, improve patients' quality of life and have high safety has become the focus of traditional Chinese medicine scholars.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 March 2022 and was last updated on 26 March 2022 (registration number INPLASY202230149).

### INTRODUCTION

**Review question / Objective:** This study will use the mesh meta-analysis method to compare the impact of acupuncture and moxibustion on the effectiveness of as, and rank the acupuncture and moxibustion

intervention methods according to the results, in order to select the best acupuncture and moxibustion treatment scheme for clinic.

**Condition being studied:** At present, the guidelines propose that the drugs for the

clinical treatment of AS include NSAIDs, DMARDs, biological agents, etc., but the clinical efficacy is often poor. Patients still have symptoms such as stiffness and discomfort of the waist and back, fatigue and other symptoms, and the side effects of drugs are significant, which will cause a variety of adverse drug reactions. Therefore, in the case of routine treatment of Western medicine, seeking alternative and complementary therapies that can alleviate patients' symptoms, reduce patients' concomitant drug burden, improve patients' quality of life and have high safety has become the focus of traditional Chinese medicine scholars.

## METHODS

**Participant or population:** All patients met the clinical diagnosis of AS and at least one currently recognized clinical diagnostic standard of AS. Meeting any of the following diagnostic criteria can be included in the study: ① AS New York standard revised in 1984. ② 2009 International spinal arthropathy evaluation working group (ASAS) standard; ③ Diagnostic and therapeutic guidelines for AS, rheumatology branch, Chinese Medical Association, 2010. There will be no restrictions based on gender, race and course of disease.

**Intervention:** Acupuncture and moxibustion.

**Comparator:** The control group was treated with simple rehabilitation therapy.

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

**Eligibility criteria:** Randomized controlled trials (RCTs), limited to Chinese and English.

**Information sources:** RCTs of acupuncture in the treatment of AS were searched in CNKI, Wan-Fang data, CBM, VIP, PubMed, and Cochrane Library.

**Main outcome(s):** Total effective rate, ESR, CRP and adverse reaction.

**Quality assessment / Risk of bias analysis:** If the number of included studies for the outcome index is  $\geq 10$ , Test the small sample effect and publication bias by drawing a "comparison correction" funnel chart, take the effect size of each indicator as acupuncture intervention in KOA, so as to provide the effectiveness and Safety provides evidence-based medicine the abscissa and the standard error as the ordinate.

**Strategy of data synthesis:** Stata 15.0 software was used for statistical analysis of the data. The total effective rate is binary data, using odds ratio as the effect size; pain score (VAS) and functional score (WOMAC) as numerical variables, and the mean difference is used as the effect size. Each effect size is expressed in a 95% confidence interval, and the evidence network of each intervention is drawn. Predict the possible ranking probability of each treatment measure by drawing the surface under the cumulative ranking (SUCRA) graph. Finally use Revman5.3 software to draw a risk of bias chart to evaluate the risk bias of the included literature.

**Subgroup analysis:** If the number of included studies for the outcome index is  $\geq 10$ , Test the small sample effect and publication bias by drawing a "comparison correction" funnel chart, take the effect size of each indicator as acupuncture intervention in AS, so as to provide the effectiveness and Safety provides evidence-based medicine.

**Sensitivity analysis:** The I<sup>2</sup> value is used to test the heterogeneity, and 50% (I<sup>2</sup>) and 0.05 (P value) are selected as the cut-off points. If the value shows small heterogeneity (P>.05, I<sup>2</sup> 50%), the fixed-effects model is used for network meta-analysis. On the contrary, if there is heterogeneity (P50%), use random effect model, and through subgroup analysis and sensitivity analysis to explore the source of heterogeneity, subgroup analysis based on

---

the grouping includes treatment course, control group intervention measures, patient grouping plan, etc. If the source of heterogeneity or heterogeneity cannot be determined when the sex is too big, only do a descriptive analysis.

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

**Other relevant information:** Import documents extracted from the database into Noteexpress software for file management. 1, Eliminate duplicate documents, then quickly scan the title and summary of the document, and the remaining documents to screen those who do not meet the requirements. Finally, download the full text of the document that may meet the requirements, and further read and filter out the qualified documents. Two well-trained qualified medical personnel with clinical experience in orthopedics and acupuncture were included and excluded. After verification, the primary screening literature was obtained.

**Keywords:** Ankylosing spondylitis; Acupuncture and moxibustion; network meta-analysis.

**Contributions of each author:**

Author 1 - Xiaoling Deng.

Author 2 - Manhua Zhu.

Author 3 - Xinju Hou.

Author 4 - Wei Xiong.

Author 5 - Qi Tong.