

# **INPLASY** PROTOCOL

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

**Conflicts of interest:** None.

Efficacy and safety of manual acupuncture in the treatment of **Upper Limb Motor dysfunction after** stroke: A protocol for systematic review and meta-analysis

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**Review question / Objective: Is manual acupuncture effective** and safe in the treatment of upper limb motor dysfunction after stroke?

Condition being studied: Our study aimed to evaluate the efficacy and safety of hand manipulation acupuncture in the treatment of upper limb motor dysfunction after stroke, based on the results of randomized controlled trials.

Information sources: English and Chinese searching strategies will be conducted in eight databases: the China National Knowledge Infrastructure, Chinese Scientific Journal Database, Wanfang Database, Cochrane Central Register of Controlled Trials, Web of Science, PubMed, MEDLINE, and Embase. In addition, manual retrieval of research papers, conference papers, ongoing experiments, internal reports, etc. will supplement electronic retrieval. The searches will select all eligible studies published on or before January 15, 2021. To enhance the effectiveness of the study, only the clinical randomized controlled trials related to manual acupuncture in the treatment of Upper Limb Motor dysfunction (ULMD) after stroke will be included.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 January 2021 and was last updated on 19 January 2021 (registration number INPLASY202110071).

# **INTRODUCTION**

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INPLASY

stroke, based on the results of randomized controlled trials.

## **METHODS**

Participant or population: Upper Limb Motor dysfunction after stroke.

Intervention: Manual acupuncture, alone or in combination with routine rehabilitation treatment (manual therapy, exercise therapy, and electronic biofeedback, among others).

**Comparator:** Only conventional rehabilitation treatment.

Study designs to be included: Randomized controlled clinical trials and quasirandomized controlled trials will be included.

Eligibility criteria: Including author, year, sample size, course of treatment, intervention measures, outcome indicators, adverse reactions, among others.

**Information sources: English and Chinese** searching strategies will be conducted in eight databases: the China National Knowledge Infrastructure, Chinese Scientific Journal Database, Wanfang Database, Cochrane Central Register of Controlled Trials, Web of Science, PubMed, MEDLINE, and Embase. In addition, manual retrieval of research papers, conference papers, ongoing experiments, internal reports, etc. will supplement electronic retrieval. The searches will select all eligible studies published on or before January 15, 2021. To enhance the effectiveness of the study, only the clinical randomized controlled trials related to manual acupuncture in the treatment of Upper Limb Motor dysfunction (ULMD) after stroke will be included.

Main outcome(s): The Fugl-Meyer Motor Function (FMA) score.

### Quality assessment / Risk of bias analysis:

If there are >10 trials in accordance with the study, we can use Rev man5.3 software to draw and analyze the funnel chart, and use the funnel chart to evaluate the potential publication bias.

Strategy of data synthesis: The search strategy will be based on the Cochrane handbook guidelines (5.1.0) including keywords such as'post-stroke', 'after stroke', 'acupuncture' or 'manual acupuncture', 'Upper extremity motor dysfunction', and 'RCT'. Subsequent searches will use MeSH headings, including 'post-stroke', 'Upper extremity motor dysfunction', and 'manual acupuncture', in addition to keywords from the initial retrieval. Additional article searches will review the reference lists of relevant research articles.

Subgroup analysis: If possible, Subgroups will analyzed according to relaxation and spasm or different acupuncture manipulation.

Sensibility analysis: When possible, we will perform sensitivity analysis to explore the effects of the trial's bias risk on primary outcomes. These analyses will exclude lower quality trials and repeat the metaanalyses to assess quality and robustness when significant statistical heterogeneity arises, according to sample size and insufficient data.

Country(ies) involved: China.

**Keywords:** Manual acupuncture,Upper Limb Motor dysfunction, stroke, protocol, systematic review.

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

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