# INPLASY PROTOCOL

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# The effect of acupuncture and intervention types for treatment of cancer pain: a scoping review of systematic reviews and meta-analyses

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Review question / Objective: The aim of this scoping review is to summarize the evidence from systematic reviews of acupuncture and intervention types for the treatment of cancer pain and to evaluate the breadth and methodological quality of them.

Condition being studied: Acupuncture is one of the traditional therapy of Chinese medicine. As its effectiveness and safety, it has been widely used in clinical practice in China. In the past of 10 years, with the development of evidence based medicine (EBM) and the accomplishment of evidence body of acupuncture, guidelines for acupuncture have been gradually established, covering multisystem diseases such as herpes zoster, depression, migraine etc. Acupuncture is also used and frequently advocated for the treatment of cancer pain. A few clinical researches, systematic review or meta-analyses has proved its effectiveness and safety, but there is no comprehensive syntheses among those evidence.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 January 2022 and was last updated on 15 January 2022 (registration number INPLASY202210073).

### INTRODUCTION

Review question / Objective: The aim of this scoping review is to summarize the evidence from systematic reviews of acupuncture and intervention types for the treatment of cancer pain and to evaluate the breadth and methodological quality of them.

Rationale: Nearly 70% cancer patients could suffer pain symptoms, only 50% of them can be controlled. Cancer patients not only suffer great pain in body, but also have poor quality of life. Although WHO had

provided effectual approaches to relieve cancer pain, the side effect of pharmacological interventions can not be missed. It is suggesting that alternative treatments for cancer related pain are urgently required. The increasing number of clinical studies has shown acupuncture as an effective treatment in alleviating pain among cancer patients. However, a few systematic reviews reported the inconsistent result of acupuncture treatment for cancer pain, and the quality of them has not been fully evaluated. We conduct this scoping review to overview the current evidence on the effectiveness and safety of acupuncture for treating cancer pain and evaluate the quality and bias of the systematic reviews (SRs) and meta-analyses we reviewed, in order to aid in designing future systematic reviews and identifying research directions.

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### **METHODS**

Search strategy: Eight key electronic databases, including Cochrane Database, Web of Science, PubMed, Embase, China National Knowledge Infrastructure (CNKI), China Science and Technology Journal Database (VIP), China Biology Medicine disc (CBMdisc), and Wanfang Database will be searched since the establishment of the database. The search will use the following search terms: "cancer pain", ,

"acupuncture", "moxibustion", "systematic reviews" and their synonyms.

Participant or population: We will include patients diagnosed with cancer pain.

Intervention: Treatment group intervention at least includes a kind of acupuncture therapy (acupuncture, electroacupuncture, auricular acupuncture, etc.) or moxibustion therapy.

Comparator: We will include any study that includes comparators.

Study designs to be included: This scoping review will include published studies of any design. But conference abstracts, guidelines, randomized controlled trials, and consensuses will be excluded. No restriction will be applied in terms of language, geographic location, or social, racial, or gender demographics.

Eligibility criteria: (1)qualified literature of systematic review and meta-analysis of all relevant acupuncture interventions in cancer pain at home and abroad. (2)Include at least a kind of acupuncture therapy, such as acupuncture, electroacupuncture, auricular acupuncture, etc.(1)qualified literature of systematic review and metaanalysis of all relevant acupuncture interventions in cancer pain at home and abroad. (2)Include at least a kind of acupuncture therapy, such as acupuncture, electroacupuncture, auricular acupuncture, etc.(3)Outcomes included VAS scores, Pain Numerical Rating Scale (NRS) score, BPI-SF scores, EORTC QLQ-C30 scores, etc.

Information sources: To answer the research question, we will search Cochrane Database, Web of Science, PubMed, Embase, China National Knowledge Infrastructure (CNKI), China Science and Technology Journal Database (VIP), China Biology Medicine disc (CBMdisc), and Wanfang Database since the establishment of the database. There will be no limits on studies that used languages differing from Chinese.

Main outcome(s): Effectiveness indicators: VAS scores, Pain Numerical Rating Scale (NRS) score, BPI-SF scores, EORTC QLQ-C30 scores.

Additional outcome(s): None.

Data management: We used PRISMA SCR as a reference for the scoping review. Data extraction will be performed by author A (Yanii Zhang) and B (Yingrong Zhang), and checked by anther author (Jia Li). Variables will be extracted for the following key groupings: general study information, intervention measures, outcome data and analysis/results. The results will be was briefly organized into a tabular format and analyzed using narrative description. The results was briefly organized into a tabular format and analyzed using narrative description. The data extracted from the study is presented in the form of tables and pictures.

# Quality assessment / Risk of bias analysis:

Two researchers (Yanji Zhang and Suzhen Liu) will evaluated the quality of included studies by using the AMSTAR2 tool in duplicate. The AMSTAR2 scale contains a total of 16 entries, each entry is answered "yes" or "no", some entries can be answered as "partial yes". If no items are defective or there is only one non-key item thatis defective, the methodological quality of the commented SR is high. When more than one non-key item is defective and no key item is defective, the methodological quality is judged into medium. The methodological quality is low when a key item is defective with or without noncritical item defects. The methodological quality is extremely low when there is more than one key item defect, with or without non-critical item defects.

Strategy of data synthesis: The results will be simply organized in tabular format, and narrative descriptions will be used where further analysis is required. The data extracted from the study is presented in the form of tables and pictures to facilitate our summary. Subgroup analysis: As scoping review research, there will be no plan for analysis subgroup data.

Sensitivity analysis: As scoping review research, there will be no plan to perform the sensitivity analysis of data.

Language: No restrictions will be applied on language.

Country(ies) involved: China.

Other relevant information: No.

**Keywords:** Acupuncture, cancer pain, scoping review.

Dissemination plans: The findings will be published in peer-reviewed journals and/or presented at scientific conferences.

## Contributions of each author:

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