

# INPLASY PROTOCOL

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**Support:** Not available.

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

## Conflicts of interest:

Hubei University of Traditional  
Chinese Medicine, Wuhan,  
China.

## INTRODUCTION

**Review question / Objective:** The question will be demonstrated by PICOS framework. P: Adult patients who are diagnosed with neoplasm and receiving highly emetogenic

## Acupuncture therapy for preventing the Nausea and Vomiting Following High Emetic Risk Chemotherapy: a protocol for systematic review and Bayesian Network meta-analysis

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**Review question / Objective:** The question will be demonstrated by PICOS framework. P: Adult patients who are diagnosed with neoplasm and receiving highly emetogenic chemotherapy regimens will be included. Patients receiving chemotherapy for blood or rheumatic diseases will be excluded. I: Any acupuncture therapy or acupuncture therapy combined with antiemetics will be included as interventions. C: Control group consisted of usual care, sham acupuncture therapy, medication. O: Main outcome is the incidence of nausea and vomiting.

**Condition being studied:** Nausea and vomiting are the most common complications following chemotherapy and usually lead to decreased quality of life. Acupuncture therapy is an effective replacement method for chemotherapy-induced nausea and vomiting (CINV), the effects and safety have been observed by many clinicians. Based on enough clinical researches, we hope to make a systematic review and Bayesian network meta-analysis to evaluate the effectiveness of different acupuncture therapies used for preventing chemotherapy-induced nausea and vomiting.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 July 2020 and was last updated on 04 August 2020 (registration number INPLASY202070070).

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## METHODS

**Search strategy:** Authors will search PubMed/Medline, Cochrane library, Web of Science, Ebsco, Ovid/Embase, China National Knowledge Infrastructure (CNKI), Wanfang Database, VIP Database and China Biology Medicine disc (CBM) from setup time to July 2020. The following terms will be used for the search: "Nausea", "Vomiting", "Emesis", "Sick" "Hyperemesis" will be used to identify "nausea and vomiting"; "chemoembolization", "chemotherapy", "Chemical therapy", "Drug Therapy", "Antineoplastic", "Chemotherapy", "Chemoprevention", "Chemoprophylaxis" will be used to identify "chemotherapy"; "acupuncture", "Acupoint", "Moxibustion", "Electric Stimulation Therapy", "auricular acupuncture", "Transcutaneous Electric Nerve Stimulation", "Transcutaneous Electric acupoint", "electroacupuncture", "acupressure", "catgut embedding", "embedding therapy" will be used to identify acupuncture therapy.

**Participant or population:** Adult patients who are diagnosed with neoplasm and receiving highly emetogenic chemotherapy regimens will be included. Patients receiving chemotherapy for blood or rheumatic diseases will be excluded.

**Intervention:** Any acupuncture therapy will be included, for instance, acupuncture, electro-acupuncture and moxibustion etc. In particular, pre-search showed that transcutaneous electric nerve stimulation and acupressure with acupoint are common in relevant studies, so they are also regarded as acupuncture therapies. Acupuncture therapy combined with antiemetics will also be recorded.

**Comparator:** Control group consisted of usual care (means no treatment), sham acupuncture therapy, medication such (e.g. 5HTRA or PPI or Steroids). But other complementary or alternative therapy will be excluded (e.g. psychological guidance or herbs).

**Study designs to be included:** Only peer-reviewed randomized control trials(RCTs) can be included. Languages are limited to Chinese and English.

**Eligibility criteria:** The eligibility criteria will be achieved when all literatures meet the requirements above. Only the most informative and complete study of any duplicate publications will be selected.

**Information sources:** PubMed/Medline, Cochrane library, Web of Science, Ebsco, Ovid/Embase, China National Knowledge Infrastructure (CNKI), Wanfang Database, VIP Database and China Biology Medicine disc (CBM) will be searched from setup time to July 2020. If we can't find the full text after full-scale search, contact with the first author. And no grey literature will be included.

**Main outcome(s):** Main outcome is the incidence of nausea and vomiting, in which 0-24h after chemotherapy was acute vomiting, while greater than 24h was delayed vomiting.

**Additional outcome(s):** Grade of nausea and vomiting R-INVIR International Scale.

**Quality assessment / Risk of bias analysis:** Cochrane risk-of-bias tool (ROB 2.0) will be used to evaluate the quality which has 5 domains including: (1) bias arising from the

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randomization process, (2) bias due to deviations from intended interventions, (3) bias due to missing outcome data, (4) bias in measurement of the outcome, (5) bias in selection of the reported result. Finally, an overall risk of bias will be given based on above bias. Two reviewers will use ROB 2.0 to assess all matched studies and the third reviewer will request adjudications if necessary.

Author 6 - Hong Nie - Hong Nie curated date.

**Strategy of data synthesis:** Stata, Addis and OpenBugs will be employed to deal with collected data. Stata 14.0 will be used to solve pairwise meta-analysis, with odds ratio (OR) and 95% confidence interval (CI). Addis will be conducted to make a network meta-analysis. OpenBugs will take charge of Bayesian framework.

**Subgroup analysis:** If one of the outcome parameters demonstrates statistically significant differences between intervention groups, we will plan to use subgroup analysis. Planned subgroup analysis will be performed in: types of symptoms, types of chemotherapy drugs, and so on.

**Sensibility analysis:** Before selecting model, sensitivity analysis will be accomplished if sufficient studies are available.

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

**Keywords:** acupuncture-related therapy, chemotherapy-induced nausea and vomiting, network meta-analysis.

**Contributions of each author:**

Author 1 - Yiran Deng - Yiran Deng drafted the manuscript.

Author 2 - Chengwei Fu - Chengwei Fu provided statistical expertise.

Author 3 - Tong Wu - Tong Wu contributed to the development of the selection criteria, and the risk of bias assessment strategy.

Author 4 - Yang Jiao - Yang Jiao read, provided feedback and approved the final manuscript.

Author 5 - Wanping Huang - Wanping Huang form analysis.