# INPLASY PROTOCOL

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### Corresponding author: Ning Xu

xuning01@163.com

#### Author Affiliation:

1.The 2nd Medical college of Binzhou Medical University; 2.Weihai Central Hospital affiliated to Qingdao University.

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

Conflicts of interest: None declared.

## Wrist-ankle acupuncture as new therapy for reducing postoperative nausea and vomiting: A meta-analysis and trial sequential analysis

Ning, X<sup>1</sup>; Wei, R<sup>2</sup>.

**Review question / Objective:** The current meta-analysis and trial sequential analysis analyzed the efficacy of WAA as a new therapy for reducing PONV.

**Condition being studied:** Recently, wrist–ankle acupuncture (WAA) provides a new approach and shows advantages in mitigating the occurrence of postoperative nausea and vomiting (PONV).

Eligibility criteria: The inclusion criteria for this study were as follows: adult patients undergoing surgery without the restrictions of surgical type and age, who were divided into a WAA group (receiving WAA as an intervention) and a control group. The primary outcome we investigated was the incidence of PONV, while other postoperative adverse events related to WAA safety were considered secondary outcomes. Only randomized controlled trials were included in the analysis. Exclusion criteria included the use of other forms of traditional acupuncture in combination with WAA for PONV prophylaxis, duplicate or overlapping study populations, lack of original data, incomplete or contradictory information, discrepancies in study design, and low quality literature reports.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 May 2022 and was last updated on 09 January 2023 (registration number INPLASY202250132).

#### INTRODUCTION

**Review question / Objective:** The current meta-analysis and trial sequential analysis analyzed the efficacy of WAA as a new therapy for reducing PONV.

**Condition being studied:** Recently, wristankle acupuncture (WAA) provides a new approach and shows advantages in mitigating the occurrence of postoperative nausea and vomiting (PONV).

#### **METHODS**

Participant or population: Adult patients undergoing surgery without the restrictions of surgical type and age.

**Intervention:** Surgical patients who received WAA as a therapy for PONV (WAA group).

**Comparator:** Surgical patients who did not receive WAA for PONV (Control group).

Study designs to be included: Only randomized controlled trials.

Eligibility criteria: The inclusion criteria for this study were as follows: adult patients undergoing surgery without the restrictions of surgical type and age, who were divided into a WAA group (receiving WAA as an intervention) and a control group. The primary outcome we investigated was the incidence of PONV, while other postoperative adverse events related to WAA safety were considered secondary outcomes. Only randomized controlled trials were included in the analysis. Exclusion criteria included the use of other forms of traditional acupuncture in combination with WAA for PONV prophylaxis, duplicate or overlapping study populations, lack of original data, incomplete or contradictory information, discrepancies in study design, and low quality literature reports.

Information sources: We searched the Cochrane Library, PubMed, EMBASE, Web of Science, SinoMed, CKNI, WanFang, and VIP databases, as well as dissertations and conference papers.

Main outcome(s): the occurrence of PONV.

Quality assessment / Risk of bias analysis: The quality of the included studies was evaluated by two authors using the Cochrane Risk of Bias Assessment Tool. We mainly focused on the following items: the method of generating randomized group sequences; allocation concealment; blinding of the participants; outcome assessment; incomplete data; and selective reporting and other bias. Strategy of data synthesis: Review Manager 5.4 software was used to perform statistical analysis of the extracted data. For continuous variables, data were counted and the standard mean difference (SMD) was applied to the 95% confidence interval (CI). The risk ratio (RR) and 95% CI were calculated for dichotomous variables.

Subgroup analysis: Subgroup analysis was performed based on surgical type.

Sensitivity analysis: Sensitivity analysis was performed when obvious heterogeneity existed.

Country(ies) involved: China.

Keywords: wrist-ankle acupuncture, postoperative nausea and vomiting, metaanalysis, trial sequential analysis.

**Contributions of each author:** 

Author 1 - Ning Xu. Email: xuning01@163.com Author 2 - Wei Rong.