INPLASY PROTOCOL

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Corresponding author:
Wenqian Lin

linwq@sysucc.org.cn

Author Affiliation:
Sun Yat-sen University Cancer Center

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

Conflicts of interest:
None.

Which analgesia is better for preventing chronic post-thoracotomy pain syndrome(CPTPS): a Bayesia network meta-analysis

Lin, WQ[1]; Liu, CY[2].

Review question / Objective: **The objective of this network meta-analysis is to compare and rank the analgesia methods (conventional analgesia, epidural analgesia(TEA), thoracic paravertebral block(PVB) or other nerve block) for preventing chronic post-thoracotomy pain syndrome(CPTPS).**
Condition being studied: **Patients have lung, heart or other diseases requiring thoracotomy.**
Information sources: **A comprehensive search of relevant studies was undertaken using EMBASE, PubMed and the Cochrane Library, from their dates of inception to February 2020. Only literature published in English will be retrieved.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 April 2020 and was last updated on 12 April 2020 (registration number INPLASY202040065).

INTRODUCTION

Review question / Objective: **The objective of this network meta-analysis is to compare and rank the analgesia methods (conventional analgesia, epidural analgesia(TEA), thoracic paravertebral block(PVB) or other nerve block) for preventing chronic post-thoracotomy pain syndrome(CPTPS).**

Condition being studied: **Patients have lung, heart or other diseases requiring thoracotomy.**

METHODS

Participant or population: Patients have lung, heart or other diseases requiring thoracotomy and postoperative analgesia with only opioids, local anesthetics or nonsteroidal anti-inflammatory drugs.

Intervention: Postoperative analgesia after thoracotomy includes conventional analgesia, epidural analgesia(TEA), paravertebral block(PVB) and other nerve blocks.

Comparator: Postoperative analgesia after thoracotomy includes conventional analgesia, epidural analgesia(TEA), paravertebral block(PVB) and other nerve blocks.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: Inclusion criteria: (1) study design: a comparative study of analgesia methods for persistent pain after thoracotomy; (2) the surgical method is thoracotomy; (3) the study is a RCT of two or more types of analgesia. Exclusion criteria: (1) thesis type: review articles, case reports, conference papers and dissertation; (2) the article raw data cannot be extracted because the author is not contacted; (3) the most recent data were used when the time periods of two or more studies reported by the same institution overlapped; (4) the intervention was taken combined block or a single arm study involving only one type of analgesia.

Information sources: A comprehensive search of relevant studies was undertaken using EMBASE, PubMed and the Cochrane Library, from their dates of inception to February 2020. Only literature published in English will be retrieved.

Main outcome(s): Incidence of CPTPS (>=3 months) and the pain score, the incidence of moderate CPTPS (Chronic post-thoracotomy pain syndrome).

Additional outcome(s): None

Quality assessment / Risk of bias analysis: We used the Grading of Recommendations Assessment, Development and Evaluation (GRADE) method of network meta-analysis to assess direct, indirect, and network effects of the quality of evidence for major outcomes.The GRADE method has five items that assess risk of bias, imprecision, heterogeneity, indirectness, and publication bias, and has four levels from high to very low showed high, moderate, low, and very low, respectively. And the quality of the evidence for estimates of the indirect and network effects were computed from the direct estimates. Publication bias was assessed by the funnel plots.

Strategy of data synthesis: This network meta-analysis will be performed using the Bayesian framework.

Subgroup analysis: None planned.

Sensibility analysis: None planned.

Country(ies) involved: China.

Keywords: Chronic post-thoracotomy pain syndrome; CPTPS.