

# INPLASY PROTOCOL

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**Review Stage at time of this submission:** Formal screening of search results against eligibility criteria.

**Conflicts of interest:**  
The authors declare that there are no conflicts of interest.

## INTRODUCTION

**Review question / Objective:** We conducted a meta-analysis to further evaluate the diagnostic value of abnormally expressed lncRNAs for TB to provide relatively reliable research evidence.

**Rationale:** 1.enough raw research. 2.The diagnosis efficiency of different lncRNAs for TB is controversial.

**Condition being studied:** The diagnosis efficiency of different lncRNAs for TB is controversial.

## Diagnostic significance of long non-coding RNAs expression in TB patients: a systematic review and meta-analysis

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**Review question / Objective:** We conducted a meta-analysis to further evaluate the diagnostic value of abnormally expressed lncRNAs for TB to provide relatively reliable research evidence.

**Condition being studied:** The diagnosis efficiency of different lncRNAs for TB is controversial.

**Information sources:** Aliterature search in Medline (via PubMed), Web of Science, and Embase (via Ovid SP, from1982), Cochrane Library, CNKI, Wanfang, VIP, and CBM databases and traced references.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 July 2020 and was last updated on 12 July 2020 (registration number INPLASY202070043).

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## METHODS

**Search strategy:** We performed a literature search in Medline (via PubMed), Web of Science, and Embase (via Ovid SP, from 1982), Cochrane Library, CNKI, Wanfang, VIP, and CBM databases. We used the following terms search terms to search these databases: (a) 'Long non-coding RNA' or 'long noncoding RNA' or lncRNA and (b) TB or tuberculosis.

**Participant or population:** TB or tuberculosis patients.

**Intervention:** lncRNAs diagnosis.

**Comparator:** Healthy controls.

**Study designs to be included:** Diagnosis accuracy test.

**Eligibility criteria:** (a) human research subjects; (b) evaluating the diagnostic value of abnormally expressed lncRNAs in TB; (c) providing sufficient data to tabulate 2x2 table for diagnostic meta-analysis.

**Information sources:** A literature search in Medline (via PubMed), Web of Science, and Embase (via Ovid SP, from 1982), Cochrane Library, CNKI, Wanfang, VIP, and CBM databases and traced references.

**Main outcome(s):** Sensitivity, specificity.

**Additional outcome(s):** PLR, NLR, DOR, SROC curve, and AUC.

**Data management:** We used Endnote to manage references, and extracted data in Excel software.

**Quality assessment / Risk of bias analysis:** We conducted a quality assessment by adapting the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) checklist.

**Strategy of data synthesis:** We utilized the Review Manager Version 5.3 (Cochrane Collaboration, Oxford, UK) software in generating QUADAS-2 graphs. Sensitivity,

specificity, PLR, NLR, DOR, SROC curve, and AUC were used to summarize the overall diagnostic performance of the lncRNAs. Heterogeneity between studies was assessed using the Cochran Q-test, the Higgins I-squared statistic.

**Subgroup analysis:** We performed the subgroup analysis based on single or multiple lncRNAs, specimen types, sample size, detection method, expression, and literature quality.

**Sensibility analysis:** We performed a sensitivity analysis to assess the contribution of each study to the pooled estimate by excluding individual studies one at a time and recalculating the pooled OR estimate of the remaining studies.

**Language:** No language limits.

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

**Keywords:** Tuberculosis, lncRNA, Systematic review, Meta-analysis.

### Contributions of each author:

Author 1 - Xiaoling Zhong - Designed the study, made the review, and wrote the manuscript.

Author 2 - Qin Guo - made the literature search, made table and extracted data and reviewed the manuscript.

Author 3 - Jing Zhao - made the literature search, made table and extracted data.

Author 4 - Yinyue Li - made the literature search, made table and extracted data.

Author 5 - Xue Li - made the literature search, made table and extracted data.

Author 6 - Min Ren - made the literature search, made table and extracted data.

Author 7 - Min Shu - reviewed the manuscript.