

# INPLASY PROTOCOL

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**Support:** Mother and teachers.

**Review Stage at time of this submission:** Completed but not published.

**Conflicts of interest:**  
None declared.

## Diagnostic performance of ultrasound combined with CT in metastatic lymph nodes: a systematic review and meta-analysis

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**Review question / Objective:** There is meta-analysis on the diagnostic performance of ultrasound combined with CT in the diagnosis of lymph node metastasis.

**Condition being studied:** Diagnostic performance of ultrasound combined with CT in metastatic lymph nodes.

**Participant or population:** Patients with proven cancer.

**Information sources:** Pubmed, EMBASE databases, Cochrane library, Chinese National Knowledge Infrastructure and Wanfang databases were searched up to October 1st, 2021.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 November 2021 and was last updated on 04 November 2021 (registration number INPLASY2021110012).

### INTRODUCTION

**Review question / Objective:** There is meta-analysis on the diagnostic performance of ultrasound combined with CT in the diagnosis of lymph node metastasis.

**Condition being studied:** Diagnostic performance of ultrasound combined with CT in metastatic lymph nodes.

### METHODS

**Participant or population:** Patients with proven cancer.

**Intervention:** Diagnostic performance of ultrasound combined with CT.

**Comparator:** Not applicable.

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**Study designs to be included:** Random experiment.

Author 5 - Jiahui Tong.  
Author 6 - Peijun Chen.

**Eligibility criteria:** The criteria were included: (1)involved patients with proven cancer; (2)performed US and CT as the index test examination, no matter what the patients' preoperative or postoperative state.

**Information sources:** Pubmed, EMBASE databases, Cochrane library, Chinese National Knowledge Infrastructure and Wanfang databases were searched up to October 1st, 2021.

**Main outcome(s):** Twelve studies were included. The pooled sensitivity was 86% (95% CI, 78–92%), and the pooled specificity was 86% (95% CI,73–93%). Higgins I<sup>2</sup> statistic demonstrated substantial heterogeneity in the sensitivity (I<sup>2</sup> = 97.8%) and specificity (I<sup>2</sup> = 97.5%).

**Quality assessment / Risk of bias analysis:** The methodological quality of the included studies was independently assessed by two reviewers using tailored questionnaires and criteria provided by Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) .Disagreements were very minor and were resolved by consensus.

**Strategy of data synthesis:** Use Stata application and review manager 5.4.

**Subgroup analysis:** Since most of the literatures we searched were related to thyroid cancer, so we grouped thyroid and non-thyroid cancers for subgroup analysis.

**Language:** English and Chinese.

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

**Keywords:** Metastatic lymph nodes, Ultrasound, CT, Diagnostic performance.

**Contributions of each author:**

Author 1 - Ying Wang.

Author 2 - Gaoyi Yang.

Author 3 - Ying Zhang.

Author 4 - Menghan Chen.