# INPLASY PROTOCOL

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

**Conflicts of interest:**
**None declared.**

# The role of fasting C-peptide in predicting diabetes remission after sleeve gastrectomy: systematic review and meta-analysis

Tsao, CS[1].

**Review question / Objective:** **Whether preoperative fasting plasma C-peptide level can be used as a predictor of diabetes remission after sleeve gastrectomy?**
**Eligibility criteria:** **1. Number of people >20; 2. Sleeve stomach surgery; 3. Preoperative C-peptide information; 4. Complete follow-up and postoperative remission rate of diabetes.**
**Information sources:** **Medline, Pubmed, Web of science.**

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 April 2022 and was last updated on 20 April 2022 (registration number INPLASY202240127).

## INTRODUCTION

**Review question / Objective:** **Whether preoperative fasting plasma C-peptide level can be used as a predictor of diabetes remission after sleeve gastrectomy?**

**Condition being studied:** **Inclusion: 1. Number of people >20; 2. Sleeve stomach surgery; 3. Preoperative C-peptide information; 4. Complete follow-up and postoperative remission rate of diabetes Exclusion:non-simple sleeve stomach, incomplete preoperative C-peptide**

information, non-English articles, conference summaries, case, review, etc.

## METHODS

**Participant or population:** Had a simple sleeve stomach surgery, he has type 2 diabetes.

**Intervention:** Sleeve Gastrectomy.

**Comparator:** C-peptide > 3ng/L.

**Study designs to be included:** randomized controled trials, observational cohort/case-control studies.

**Eligibility criteria:** 1. Number of people >20; 2. Sleeve stomach surgery; 3. Preoperative C-peptide information; 4. Complete follow-up and postoperative remission rate of diabetes.

**Information sources:** Medline, Pubmed, Web of science.

**Main outcome(s):** There was a difference in remission rate of diabetes between patients with high fasting C-peptide and those with low fasting C-peptide after sleeve gastric surgery.

**Quality assessment / Risk of bias analysis:** Cochrane was used for RCTS and Newcastle-Ottawa Scale for assessing the quality of studies were used for others.

**Strategy of data synthesis:** Minimum study number: 20 patients, preoperatively divided into two groups with a 3ng/ml fasting plasma c-peptide boundary odds ratios for individual studies will be combined using a random effects meta-analysis.

**Subgroup analysis:** Subgroup analysis: age, sex, article type (prospective/retrospective), single-center, multi-center, years of diabetes, insulin use, etc.

**Sensitivity analysis:** Select different statistical models or perform subgroup analysis

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

**Keywords:** Sleeve Gastrectomy, Fasting plasma C-peptide, type 2 diabetes remission.

**Contributions of each author:**
Author 1 - Tsao Chunsheng.