# INPLASY PROTOCOL

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Support: None declared.

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

Conflicts of interest: None declared. Optimal reconstruction methods after distal gastrectomy for gastric cancer: A protocol for a systematic review and network meta-analysis update

Zhang, B1.

**Review question / Objective:** To guide clinical practice, we are planning a systematic review and network meta-analysis update to identify the best reconstruction method.

**Condition being studied:** Gastric cancer (GC) is the third most common cause of death from cancer worldwide, accounting for 5.7% of the total cancer cases and 8.2% of total cancer-related deaths with mortality number of 782,685 in 2018.

**Information sources:** Two reviewers will perform a systematic literature search in PubMed, Embase (Ovid) and the Cochrane Central Register of Controlled Trials databases.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 October 2021 and was last updated on 17 October 2021 (registration number INPLASY2021100060).

#### INTRODUCTION

**Review question / Objective: To guide** clinical practice, we are planning a systematic review and network metaanalysis update to identify the best reconstruction method.

**Condition being studied:** Gastric cancer (GC) is the third most common cause of death from cancer worldwide, accounting

for 5.7% of the total cancer cases and 8.2% of total cancer-related deaths with mortality number of 782,685 in 2018.

#### **METHODS**

Participant or population: We will include patients who had histologically proven gastric cancer located in the antrum, angle or lower body of the stomach, and there is no evidence of distant metastasis.

**Intervention:** We will include RCTs that comparing two or more of the following reconstruction methods after DG for GC: B-I, B-II, or R-Y reconstruction.

**Comparator:** We will include RCTs that comparing two or more of the following reconstruction methods after DG for GC: B-I, B-II, or R-Y reconstruction.

Study designs to be included: RCTs.

Eligibility criteria: We will include RCTs that comparing two or more of the following reconstruction methods after DG for GC: B-I, B-II, or R-Y reconstruction.

Information sources: Two reviewers will perform a systematic literature search in PubMed, Embase (Ovid) and the Cochrane Central Register of Controlled Trials databases.

Main outcome(s): 1) Quality of life after surgery (measured by validated questionnaires) (at least six months). 2) Incidence of anastomotic leakage within 30 days after surgery.

Additional outcome(s): 1) Quality of life after surgery (measured by validated questionnaires) (at least six months). 2) Incidence of anastomotic leakage within 30 days after surgery. The secondary outcomes will be as follows: 1) Operation time 2) Intraoperative blood loss 3) Hospital stays 4) Major postoperative complications within 30 days after surgery (grade III to V according to Clavien-Dindo Classification) 5) Incidence and severity of bile reflux according to endoscopic examination (at least six months). 6) Loss of body weight (kg) from baseline (at least six months).

Quality assessment / Risk of bias analysis:

Two reviewers will independently assess the quality and risk of bias of the included studies by using the Cochrane Risk of Bias Tool.

Strategy of data synthesis: For NMAs, we will report the estimated weighted mean differences (WMDs) for continuous outcomes, whereas the estimated risk ratios (RRs) for dichotomous outcomes, as well as the 95% credible interval (95% Crl).

Subgroup analysis: None.

Sensitivity analysis: None.

Country(ies) involved: China.

Keywords: Billroth I, Billroth II, gastric cancer, network meta-analysis, reconstruction, Roux-en-Y.

Contributions of each author: Author 1 - Bo Zhang.