# **INPLASY**

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Qingdao Central Hospital, University of Health and Rehabilitation Sciences (Qingdao Central Medical Group). Short-term outcomes of self-expandable metallic stent compared with transanal decompression tube for obstructive colorectal cancer: a systematic review and meta-analysis

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## **ADMINISTRATIVE INFORMATION**

Support - No.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202480045

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 August 2024 and was last updated on 07 August 2024.

## INTRODUCTION

Review question / Objective P:obstructive colorectal cancer; I:self-expandable metallic stent; C:transanal decompression tube; O:technicla success rate, clinical success rate, procedure-related complications, postoperative adverse events; S:RCT or non-randomized controlled studies.

Condition being studied Colorectal cancer is a common malignant tumor, and about 7%-28% of patients have intestinal obstruction as the initial symptom. Emergency surgery is the main treatment, but the risk of first-stage anastomotic leakage, prophylactic stoma rate, postoperative complications and mortality of emergency surgery are high. In recent years, with the development of endoscopy and interventional medicine, intestinal stent implantation can be used as an effective treatment for colorectal cancer complicated with acute intestinal obstruction. Because of its advantages of small trauma and exact effect, it is now used as a preoperative bridging therapy, and

the emergency surgery is converted to elective surgery to reduce the risk of surgery.

### **METHODS**

**Search strategy** We search the datebase Cochrane, Embase, Pubmed, Scopus, Web of science, clinicaltrials.

Terms: "Colorectal Neoplasms", "Colorectal Neoplasm", "Neoplasm, Colorectal", "Neoplasm, Colorectal", "Colorectal Tumors", "Colorectal Tumor", "Tumor, Colorectal", "Tumors, Colorectal", "Neoplasms, Colorectal", "Colorectal Cancer", "Cancer, Colorectal", "Cancers, Colorectal", "Colorectal Carcinoma", "Carcinoma, Colorectal Carcinoma", "Carcinoma, Colorectal", "Carcinomas, Colorectal", "Self Expandable Metallic Stents", "Self Expandable Metallic Stents", "Self Expandable Metallic Stent", "Colonic Stent",

"transanal decompression tube", "transanal decompression tubes", "trans-anal colorectal tube", "decompression tubes", "decompression tubes", "TDT", "TCT", "DT", "DTs" and "transanal tube".

Participant or population Obstructive colorectal cancer.

Intervention Self-expandable metallic stent.

Comparator Transanal decompression tube.

Study designs to be included RCT or nonrandomized controlled studies.

Eligibility criteria 1.RCTs or non-randomized controlled studies on stent vs transanal decompression tube in patients with malignant large bowel obstruction. 2.All patients should be planned to take selective resection surgery. 3.Published in English. 4.Newcastle-Ottawa Scale scores >6.

**Information sources** We search the datebase Cochrane, Embase, Pubmed, Scopus, Web of science, clinicaltrials.

**Main outcome(s)** Technicla success rate, Clinical success rate, procedure-related complications.

**Additional outcome(s)** Postoperative adverse events.

**Data management** NoteExpress software will be employed to manage all citations, as well as for duplicates screening.

Quality assessment / Risk of bias analysis To assess the methodological quality of included studies, the Newcastle-Ottawa Scale (NOS) will be used to score them from 0 to 9. Each included study will be assessed from the following three aspects: case selection(0-4), comparability(0-2), and outcome(0-3). Articles marked 6 or higher will be considered as a qualified study.

Strategy of data synthesis The RevMan 5.3 software will be employed for statistical analysis. Since all theoutcomes are dichotomous variances, fixed-effects models will be used in all meta-analyses. And the relative risks (RR) and 95% confidence intervals (CIs) will be estimated by using the Mantel-Haenszel method.

**Subgroup analysis** We will conduct subgroup analysis on the basis of sex, age and so on, to explore possible sources of heterogeneity.

**Sensitivity analysis** We will conduct sensibility analysis by separately excluding the impact of each study on the overall combined results.

Language restriction English.

Country(ies) involved China.

**Keywords** colorectal cancer, self-expandable metallic stent, transanal decompression tube, outcomes.

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