

# INPLASY

## Meta-analysis of the efficacy and safety assessment of metronidazole in post-hemorrhoidectomy pain

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### ADMINISTRATIVE INFORMATION

**Support** - None.

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

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202390108

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 September 2023 and was last updated on 30 September 2023.

### INTRODUCTION

**Review question / Objective** This study aims to systematically assess the effectiveness and safety of metronidazole compared to a placebo in the management of postoperative pain following hemorrhoidectomy. The goal is to provide evidence-based recommendations for pain management strategies.

**Condition being studied** We are investigating the management of postoperative pain after hemorrhoidectomy, a common surgical procedure for hemorrhoids. The research focuses on improving the management of pain experienced by patients after this surgery.

### METHODS

**Participant or population** The study involves patients who have undergone hemorrhoidectomy.

**Intervention** In the metronidazole group, patients receive metronidazole.

**Comparator** The control group is administered a placebo treatment.

**Study designs to be included** We will include randomized controlled trials (RCTs) in our analysis.

**Eligibility criteria** Patients of any gender undergoing hemorrhoidectomy.

**Information sources** Our data sources include The Cochrane Library, Embase, and PubMed databases.

**Main outcome(s)** Pain scores on the first, second, seventh, and fourteenth days post-operation, additional analgesia requirements, overall complication rates, and time taken to return to normal activities.

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**Quality assessment / Risk of bias analysis** Two authors will independently assess the quality of included studies using Cochrane's bias risk assessment tool. Disagreements will be resolved through discussion or by involving a third author.

**Strategy of data synthesis** We will perform a meta-analysis using RevMan 5.3 software. Risk ratios (RR) and mean differences (MD) with 95% confidence intervals (CI) will be used as effect measures. Heterogeneity will be assessed, and a fixed-effect or random-effects model will be selected based on the presence and magnitude of heterogeneity. Sensitivity analysis and publication bias assessment will be conducted when applicable.

**Subgroup analysis** Subgroup analysis will be performed for studies with significant heterogeneity.

**Sensitivity analysis** Sensitivity analysis will be carried out by iteratively removing one study at a time to evaluate its impact on the overall effect.

**Country(ies) involved** China.

**Keywords** metronidazole; hemorrhoidectomy; pain; meta-analysis.

#### **Contributions of each author**

Author 1 - Xi Li.

Author 2 - Yue-Juan Li.

Author 3 - Deng-Chao Wang.

Author 4 - Jian Wei.