

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## Efficacy and safety of vitamin D adjuvant therapy for ulcerative colitis: a meta-analysis

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**Review question / Objective:** Review To systematically analyze the clinical efficacy and safety of vitamin D in the treatment of ulcerative colitis.

**Condition being studied:** Clinical controlled trial of vitamin D in the treatment of ulcerative colitis.

**Information sources:** CNKI, VIP, Wangfang Data, PubMed, Cochrane Library and Web of Science databases.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 May 2022 and was last updated on 07 May 2022 (registration number INPLASY202250044).

### INTRODUCTION

**Review question / Objective:** Review To systematically analyze the clinical efficacy and safety of vitamin D in the treatment of ulcerative colitis.

**Condition being studied:** Clinical controlled trial of vitamin D in the treatment of ulcerative colitis.

### METHODS

**Participant or population:** Patients with ulcerative colitis.

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**Intervention:** Vitamin D or mesalazine.

**Comparator:** Mayo score, intestinal mucosal function (serum MDA and DAO), inflammatory factors (1L-6, CRP and TNF- $\alpha$ ), and incidence of adverse reactions.the treatment of ulcerative colitis; Mayo Mayo score; intestinal barrier function; inflammatory factors; safety difference.

**Study designs to be included:** RCT studies on vitamin D in the treatment of ulcerative colitis were searched from CNKI, VIP, Wangfang Data, PubMed, Cochrane Library and Web of Science databases. A meta-analysis was performed using Revman 5.4 software.

**Eligibility criteria:** Clinical randomized controlled study (RCT study).

**Information sources:** CNKI, VIP, Wangfang Data, PubMed, Cochrane Library and Web of Science databases.

**Main outcome(s):** Clinical curative effect.

**Additional outcome(s):** Mayo score, intestinal mucosal function (serum MDA and DAO), inflammatory factors (1L-6, CRP and TNF- $\alpha$ ), and incidence of adverse reactions.

**Data management:** According to the inclusion and exclusion criteria, the two researchers independently screen the title, abstract and full text of the paper. If there is a dispute on the inclusion or exclusion of the research, all the research members participate in the discussion and make a decision together. Data were extracted from a uniform data extraction table, including: first author, publication year, number of cases, sex, evaluation age, intervention, outcome measures, and randomization. A total of 10 RCT studies were included.

**Quality assessment / Risk of bias analysis:** The funnel plot was drawn based on the influence of the included literature on the cure rate of UC, and the results showed that the circle was located around both

sides of the midline, presenting an incomplete symmetrical distribution.

**Strategy of data synthesis:** A meta-analysis was performed using Revman 5.4 software.

**Subgroup analysis:** Subgroup analysis was performed when inflammatory factors and mucosal barrier were used as outcome indicators.

**Sensitivity analysis:** Sensitivity analysis was performed when the mucosal barrier was used as the outcome index.

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

**Keywords:** Ulcerative colitis; Vitamin D; Mesalazine; Meta analysis.

**Contributions of each author:**

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