

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## Efficacy and safety of apremilast in the treatment of plaque psoriasis: a meta-analysis based on real-world studies

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**Review question / Objective:** Treatment of plaque psoriasis is lengthy and recovery is difficult. apremilast is a newly developed drug in recent years, and studies have investigated the efficacy and safety of apremilast in the treatment of plaque psoriasis; however, sample sizes are small and results are not entirely consistent. Therefore, in this study, the efficacy and safety of apremilast were evaluated by meta-analysis to provide theoretical evidence to support the treatment of patients with plaque psoriasis. P: plaques psoriasis (plaques psoriasis). I: apremilast, no control group. O: psoriasis area and severity index (PASI) 50, 75, 90, and 100 response; DLQI  $\leq 5$ , DLQI 0 or 1; Adverse events. Study type was real-world study.

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**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 August 2022 and was last updated on 20 August 2022 (registration number INPLASY202280076).

### INTRODUCTION

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## METHODS

**Participant or population:** Plaques psoriasis.

**Intervention:** Apremilast.

**Comparator:** None.

**Study designs to be included:** real-world study.

**Eligibility criteria:** Inclusion criteria (1) Study population: plaques psoriasis(psoriasis). (2) Intervention: apremilast, no control group. (3) Study outcomes: psoriasis area and severity index (PASI) 50, 75, 90, and 100 response; DLQI  $\leq$ 5, DLQI 0 or 1; Adverse events. (4) Study type was real-world study. Exclusion criteria (1) Exclusion of animal experiments, reviews, and conference abstracts. (2) Exclusion of randomized controlled trials. (3) In case of duplicate literature, only the one with the most complete information was included.

**Information sources:** Pubmed, Embase, Web of Science, Cochrane, Ovid.

**Main outcome(s):** PASI 50, 75, 90, and 100 response; DLQI  $\leq$ 5, DLQI 0 or 1; Efficient.

**Additional outcome(s):** Adverse events.

**Data management:** EndNote, The information about the literature is imported into the software, and the duplicates are sorted and removed. Remove non-compliant documents by their main content.

**Quality assessment / Risk of bias analysis:** Cochrane Tool.

**Strategy of data synthesis:** Prevalence rate (PR) and 95% confidence interval (CI) were used as effect values to assess PASI 50, 75, 90, and 100 response rates; prevalence of DLQI  $\leq$ 5, DLQI 0 or 1; and incidence of Adverse events.

**Subgroup analysis:** Subgroup analysis was performed by grouping factors such as treatment duration and region to explore the effect of grouping factors on heterogeneity and meta-analysis results.

**Sensitivity analysis:** Deleting any of these documents, the results of the remaining documents combined are not significantly different from the results before the documents were deleted, implying that the sensitivity analysis was passed.

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

**Keywords:** apremilast, plaques psoriasis.

**Contributions of each author:**

Author 1 - Lang Xiaona.

Author 2 - Dan Wenchao.