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INPLASY

Systematic Review and Sequential Analysis of Reyanning Mixturein in the Treatment of Upper Respiratory Tract Infection

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ADMINISTRATIVE INFORMATION

Support - The National Key R&D Program of China (2018YFC1707400).

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202390057

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 September 2023 and was last updated on 16 September 2023.

INTRODUCTION

Review question / Objective To explore clinical Efficacy and safety of Reyanning Mixturein for Upper Respiratory Tract Infection: a systematic review and meta-analysis.

Condition being studied Upper respiratory tract infection is defined as self-limited irritation and swelling of the upper airways with associated cough. There is no sign of pneumonia and other conditions that can cause the symptoms, nor a history of chronic obstructive pulmonary disease, emphysema, or chronic bronchitis. Previous animal experiments have confirmed that Reyanning Mixturein has anti-inflammatory, antipyretic, and expectorant properties, and effectively treats upper respiratory tract infection. Therefore, we systematically reviewed the clinical efficacy and safety of Reyanning Mixturein in the treatment of upper respiratory tract infection.

METHODS

Participant or population Patients diagnosed with upper respiratory tract infection, regardless of gender, age, race, region, etc.

Intervention Reyanning Mixturein is treated with conventional therapy or alone.

Comparator No intervention, placebo, or conventional therapy (Do not include Reyanning Mixturein or other Chinese patent medicine).

Study designs to be included Randomized controlled trials will be included.

Eligibility criteria Exclusion criteria: The full text was not available; Data had serious errors; Data were repeatedly published.

Information sources By searching Web of Science, PubMed, China Knowledge Network

(CNKI), China Biomedical Database (CBM), Wan Fang, VIP database, Embase, and Cochrane Library. The search time is from the date of establishment of database to January 2022.

Main outcome(s) Duration of fever, cough, nasal congestion, pharyngitis.

Additional outcome(s) Incidence of adverse reactions.

Quality assessment / Risk of bias analysis We will evaluate the risk of bias of each included article in accordance with the Cochrane Handbook for Systematic Reviews of Interventions. The methodological quality will be assessed from the following seven perspectives: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessments, incomplete outcome data, selective reporting and other bias. The risks will be categorized as being low, high or unclear.

Strategy of data synthesis Data analysis will be conducted by RevMan 5.4 software. Mean difference (MD) will be used for continuous outcomes. Risk ratio (RR) will be adopted for dichotomous results. Heterogeneity across studies will be checked by using I^2 test. $I^2<50\%$ or $P>0.10$ suggests heterogeneity across studies, and a fifixed-effects model will be conducted for pool analysis. If $I^2>50\%$ or $P<0.10$, the pooled effect sizes will be calculated by a random-effects mode. The confifidence interval (CI) will be set at 95%. The publication bias will be visually assessed by funnel plots.

Subgroup analysis The study required a subgroup analysis based on the course of treatment and the intervention of conventional treatment.

Sensitivity analysis Stability of merger results will be checked by sensitivity analysis. If any low-quality trials exist, we will explore the potential heterogeneity if necessary and remove it.

Country(ies) involved China.

Keywords reyanning mixture, upper respiratory tract infection, randomized controlled trial, systematic review, Meta-analysis.

Contributions of each author
Author 1 - Fengjingming Cheng.
Author 2 - Jian Lyu.
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Author 4 - Yanming Xie.

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