

# INPLASY

## Effect of the tonifying-Qi prescription of traditional Chinese medicine in chronic obstructive pulmonary disease (COPD) : a meta-analysis and systematic review

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### ADMINISTRATIVE INFORMATION

**Support** - None.

**Review Stage at time of this submission** - Data extraction.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY2023100082

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 October 2023 and was last updated on 25 October 2023.

### INTRODUCTION

**Review question / Objective** The aim of this meta-analysis is to evaluate the efficacy of tonifying-Qi prescription of traditional Chinese medicine in the treatment of COPD.

**Condition being studied** Chronic obstructive pulmonary diseases(COPD) is a public healthy problem and characterized by incomplete reversible airflow limitation and often develops progressively. In the theory of traditional Chinese medicine, COPD belongs to the category of "lung-distension". Traditional Chinese medicine deems that, where pathogenic factors accumulate, the parts of the body must be deficient in the Qi, and the pathogen invades into the body where Qi is deficient. Qi in the human body is composed of congenital-Qi and acquired-Qi, and the latter was generated and controlled by the lung. Thus the regulation of the Qi of lung plays an important role in the therapy of COPD.

As was known, the Chinese therapy methods for lung-distension including Chinese medicine prescription, acupoint sticking, acupuncture and moxibustion, etc. Obviously, the Chinese medicine prescription plays a more important role in Lung-distension. Thus, the therapy of lung-distension was carried out based on the function of Lung, especially Qi of lung. And many doctors of traditional Chinese medicine treat lung-distention with traditional Chinese medicine which mainly tonifying the Qi of lung. Herbal remedies for lung-Qi include codonopsis, ginseng, astragalus and so on. And the formulation of the above-mentioned Chinese medicine prescription was used in the Lung-distension, including Qiha Powder, Yufeining formula, bufei granules. And they have shown special effect in Lung-Distension.

In recent years, studies on the effectiveness of traditional Chinese medicine on COPD have been carried out frequently and have made some progress. However, there is still no clear conclusion on the exact effect of tonifying-Qi prescription on

COPD. So we performed this study and try to elaboration it.

## METHODS

**Search strategy** ("Pulmonary Disease, Chronic Obstructive"[Mesh]) OR (((((((((((Chronic Obstructive Lung Disease[Title/Abstract]) OR (Chronic Obstructive Pulmonary Diseases[Title/Abstract])) OR (COAD[Title/Abstract])) OR (COPD[Title/Abstract])) OR (Chronic Obstructive Airway Disease[Title/Abstract])) OR (Chronic Obstructive Pulmonary Disease[Title/Abstract])) OR (Airflow Obstruction, Chronic[Title/Abstract])) OR (Airflow Obstructions, Chronic[Title/Abstract])) OR (Chronic Airflow Obstructions[Title/Abstract])) OR (Chronic Airflow Obstruction[Title/Abstract])) AND (("Medicine, Chinese Traditional"[Mesh]) OR (((((((((((Traditional Chinese Medicine[Title/Abstract]) OR (Chung I Hsueh[Title/Abstract])) OR (Hsueh, Chung I[Title/Abstract])) OR (Traditional Medicine, Chinese[Title/Abstract])) OR (Zhong Yi Xue[Title/Abstract])) OR (Chinese Traditional Medicine[Title/Abstract])) OR (Chinese Medicine, Traditional[Title/Abstract])) OR (Traditional Tongue Diagnosis[Title/Abstract])) OR (Tongue Diagnoses, Traditional[Title/Abstract])) OR (Tongue Diagnosis, Traditional[Title/Abstract])) OR (Traditional Tongue Diagnoses[Title/Abstract])) OR (Traditional Tongue Assessment[Title/Abstract])) OR (Tongue Assessment, Traditional[Title/Abstract])) OR (Traditional Tongue Assessments[Title/Abstract]))).

**Participant or population** Patients with COPD, regardless of the stage of disease, will be included.

**Intervention** The treatment group was given basic western medicine therapy and tonifying-Qi prescription of Chinese medicine.

**Comparator** The control group was treated with basic western medicine treatment, no Chinese medicine was applied in this group. The treatment group was given basic western medicine therapy and tonifying-Qi prescription of Chinese medicine.

**Study designs to be included** All randomized controlled trials (RCTs) of COPD treated with tonifying-qi prescription of Chinese medicine will be included.

**Eligibility criteria** All included studies should be randomized controlled clinical trials, and at least two groups (tonifying-qi prescription of Chinese medicine and the control group) were included.

**Information sources** Literature retrieving was performed in three database, including PubMed, Cochrane Library, Embase.

**Main outcome(s)** The primary outcome indicators include mortality and rehospitalization. The secondary outcome included total effect, FVC, FEV1, FEV1%, COPD assessment test (CAT), mMRC, acute exacerbation, etc.

**Data management** All data were analysed by RevMan v5.3.

**Quality assessment / Risk of bias analysis** Two reviewers will assess the quality of included studies according to the Cochrane Collaborations's tool for randomized controlled trials. And another reviewer would join to assess the quality if there is any disagreement between the two reviewers. Five items, including random sequence generation, allocation concealment, blinding of participants and personnel, incomplete outcome data, selective reporting and other biases will be evaluated in three categories: low risk of bias, unclear bias and high risk of bias.

**Strategy of data synthesis** The continuous variables will be analyzed using the mean difference (MD) or standardized mean difference (SMD) and their CI, and the binary variables will be analyzed using the odds ratio (OR) or relative risk (RR) and their 95% confidence interval (CI).

**Subgroup analysis** Subgroup analysis will be conducted to analyse the possible factors that may lead to heterogeneity (only if the results are heterogeneous).

**Sensitivity analysis** Random-effects meta-analysis would be performed to assess the robustness of pooled results while heterogeneity displayed among included studies.

**Country(ies) involved** China.

**Keywords** COPD, chronic obstructive pulmonary disease, Chinese medicine, tonifying-Qi.

### Contributions of each author

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