

# INPLASY PROTOCOL

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**Support:** Not clear.

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**Conflicts of interest:**  
None declared.

## Prevalence of urinary incontinence in patients with chronic obstructive pulmonary disease: A systematic review and meta-analysis

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**Review question / Objective:** Prevalence for urinary incontinence in patients with chronic obstructive pulmonary disease.

**Condition being studied:** It is well known that the main clinical manifestations of chronic obstructive pulmonary disease are dyspnea, cough and excessive expectoration and recurrent symptoms lead to an increase in intra-abdominal pressure, thus increasing the risk of urinary incontinence. But little noticed that urinary incontinence is becoming prevalent among patients with chronic obstructive pulmonary disease than Ordinary people. To the best of our knowledge, there is a lack of reliable estimates on the prevalence among chronic obstructive pulmonary disease patients.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 May 2021 and was last updated on 16 May 2021 (registration number INPLASY202150037).

### INTRODUCTION

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chronic obstructive pulmonary disease are dyspnea, cough and excessive expectoration and recurrent symptoms lead to an increase in intra-abdominal pressure, thus increasing the risk of urinary incontinence. But little noticed that urinary incontinence is becoming prevalent among patients with chronic obstructive

pulmonary disease than Ordinary people. To the best of our knowledge, there is a lack of reliable estimates on the prevalence among chronic obstructive pulmonary disease patients.

## METHODS

**Participant or population:** Chronic obstructive pulmonary disease patients.

**Intervention:** Not applicable.

**Comparator:** Not applicable.

**Study designs to be included:** Observational studies, including cross-sectional, cohort or case-control studies, conducted in chronic obstructive pulmonary disease reporting on the prevalence of urinary incontinence will be included.

**Eligibility criteria:** The following inclusion criteria were applied: (i) participants: patients who were clearly diagnosed as COPD, and the outcome index was the prevalence of urinary incontinence; (ii) design: cross-sectional study and case-control study; (iii) the studies had to be quantitative. The exclusion criteria were: (i) Traditional reviews, abstracts, methodological introduction, repeated publication, unable to obtain the full text and low quality articles and so on; (ii) the original research data are incomplete, or can not be converted; (iii) the studies on interventions.

**Information sources:** The CNKI, WanFang Data, CBM, VIP, PubMed, EMBASE, OVID, Medline and Web of Science were searched from the establishment of the database to February 31, 2021. At the same time, the references included in the literature were manually searched by snowball method to supplement and obtain the relevant literature.

**Main outcome(s):** The primary outcome will be the prevalence of urinary incontinence.

**Quality assessment / Risk of bias analysis:** The quality assessment will consider the

suitability of the research design to the research objectives, the risk of deviation, the choice of outcome measurement methods, the quality of the report, and the versatility. The methodological quality of the included studies will be evaluated by two independent reviewers.

**Strategy of data synthesis:** Data synthesis will be performed by using Stata 14.0. A forest plot with random or fixed-effects model will be performed for quantitative synthesis. If there is significant heterogeneity, the random-effects model will be used while the fixed-effects model if not.

**Subgroup analysis:** We will perform the subgroup analysis according to the sample situation of the included study.

**Sensitivity analysis:** Sensitivity analyses were performed by using a leave-one-out method by iteratively removing a study from the meta-analysis to assess the changes of overall effects.

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

**Keywords:** Pulmonary disease, chronic obstructive; prevalence; Urinary incontinence; Meta-analysis.

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