

# INPLASY PROTOCOL

To cite: Du et al. Arthroscopic treatment of frozen shoulder: A protocol for systematic review and meta-analysis. Inplasy protocol 202330097. doi: 10.37766/inplasy2023.3.0097

Received: 25 March 2023

Published: 25 March 2023

**Corresponding author:**  
Min Du

768293654@qq.com

**Author Affiliation:**  
Guangdong Second Provincial  
General Hospital.

**Support:** None reported.

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

**Conflicts of interest:**  
None declared.

## Arthroscopic treatment of frozen shoulder: A protocol for systematic review and meta-analysis

Du, M<sup>1</sup>; Li, WJ<sup>2</sup>; Sun, QJ<sup>3</sup>; Gao, M<sup>4</sup>; Liu, YL<sup>5</sup>; Lin, SL<sup>6</sup>; Sun, HT<sup>7</sup>.

**Review question / Objective:** This protocol aims to compare the effect of ACR and conservative treatment on FS.

**Condition being studied:** Frozen shoulder is most common between the ages of 40 and 60, and the prevalence rate of women is higher than that of men. People with diabetes appear to be more prone to frozen shoulder and have a poorer prognosis. Frozen shoulder is considered a self-limiting disease, with periods of pain, stiffness, and remission. Recent studies have shown that patients with frozen shoulder cannot fully recover shoulder function without intervention. With the gradual development of arthroscopic technology, it has attracted more and more attention in the treatment of frozen shoulder. To compare the efficacy and safety of ACR and conservative treatment of frozen shoulder, we will conduct a systematic review and meta-analysis.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 March 2023 and was last updated on 25 March 2023 (registration number INPLASY202330097).

### INTRODUCTION

**Review question / Objective:** This protocol aims to compare the effect of ACR and conservative treatment on FS.

**Condition being studied:** Frozen shoulder is most common between the ages of 40 and 60, and the prevalence rate of women is higher than that of men. People with diabetes appear to be more prone to frozen

shoulder and have a poorer prognosis. Frozen shoulder is considered a self-limiting disease, with periods of pain, stiffness, and remission. Recent studies have shown that patients with frozen shoulder cannot fully recover shoulder function without intervention. With the gradual development of arthroscopic technology, it has attracted more and more attention in the treatment of frozen shoulder. To compare the efficacy and

---

safety of ACR and conservative treatment of frozen shoulder, we will conduct a systematic review and meta-analysis.

## METHODS

**Participant or population:** 1 ) Patients diagnosed with frozen shoulder; 2) Age over 18 years old.

**Intervention:** Arthroscopic capsule release.

**Comparator:** Non-surgical treatment.

**Study designs to be included:** RCT.

**Eligibility criteria:** Exclusion criteria Participants who meet one or more of the following will be excluded:1 ) Combined with rotator cuff injury, fracture, calcified tendonitis and / or other diseases that may cause shoulder pain and limited mobility;2 ) Non-randomized controlled trials, animal experiments, reviews, observational studies, retrospective studies, conference abstracts and case reports;3 ) The study duration is less than 12 months;4 ) History of previous ipsilateral shoulder surgery.

**Information sources:** Web of Science , PubMed , Cochrane Library, EMBASE , Wanfang Data Knowledge Service Platform, Chinese Science Journal Database ( VIP database), and China National Knowledge Infrastructure ( CNKI ).

**Main outcome(s):** Visual analogue score,range of motion,shoulder function, shoulder pain, disability index, patient satisfaction and adverse events.

**Quality assessment / Risk of bias analysis:** Cochrane Intervention System Evaluation Manual.

**Strategy of data synthesis:** We used Review Manager V5.3.5 ( The Nordic Cochrane Center, The Cochrane Collaboration, 2014, Copenhagen, Denmark) for data synthesis and analysis. If the I2 test was less than 50% , a fixed effects model was used for data synthesis. If the I2 test is above 50% , a random effects model will be performed for data synthesis.

**Subgroup analysis:** If the results were relatively heterogeneous, we performed subgroup analyzes for different reasons. Heterogeneity may mainly arise from the following aspects: patient race, age, type of intervention, and outcome measures, among others.

**Sensitivity analysis:** To determine the quality and stability of the study findings, we will perform a sensitivity analysis. The approach was to eliminate low-quality studies individually and recombine the effects to assess the impact of eliminating individual studies on the overall results.

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

**Keywords:** frozen shoulder,arthroscopic capsular release, conservative treatment, systematic review and meta-analysis.

### Contributions of each author:

Author 1 - MIN DU.

Author 2 - Wenjun Li.

Author 3 - Qijie Sun.

Author 4 - Mu Gao.

Author 5 - Yuelin Liu.

Author 6 - Shilong Lin.

Author 7 - Hongtao Sun.