

# INPLASY PROTOCOL

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submission:** Formal screening  
of search results against  
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**Conflicts of interest:**  
None declared.

## Effectiveness and safety of volar locked plate, K-wiring and external fixator, and the conservative treatment for distal radius fracture in the elderly: Systematic review and Network meta-analysis

Oscar, S<sup>1</sup>; Liu, WC<sup>2</sup>; Chen, CT<sup>3</sup>.

**Review question / Objective:** Patient/Problem: The  
elder(age>60), with distal radius fracture; Intervention:  
conservative treatment; Comparison of intervention: volar  
locked plate, K-wire, external fixator; Clinical Outcome: Grip  
strength, Disabilities of the Arm, Shoulder, and Hand, Patient-  
rated wrist evaluation score, range of motion.

**Condition being studied:** The elder(age>60) with distal radius  
fracture, received conservative treatment or surgical  
treatment.

**INPLASY registration number:** This protocol was registered with  
the International Platform of Registered Systematic Review and  
Meta-Analysis Protocols (INPLASY) on 03 December 2022 and  
was last updated on 03 December 2022 (registration number  
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### INTRODUCTION

**Review question / Objective:** Patient/  
Problem: The elder(age>60), with distal  
radius fracture; Intervention: conservative  
treatment; Comparison of intervention:  
volar locked plate, K-wire, external fixator;  
Clinical Outcome: Grip strength, Disabilities

of the Arm, Shoulder, and Hand, Patient-  
rated wrist evaluation score, range of  
motion.

**Rationale:** Recent studies found that  
patient reported outcome measures  
(PROMs) were similar between nonsurgical  
and surgical treatment for distal radius in

the elderly. This network meta-analysis aims to compare the effectiveness and safety between conservative treatment and surgery for distal radius fractures in the elderly.

**Condition being studied:** The elder(age>60) with distal radius fracture, received conservative treatment or surgical treatment.

## METHODS

**Search strategy:** (((((((((((intramedullary nail OR ((K-wire) OR (Kirschner wire))) OR ((pin) OR (pinning))) OR (internal fixat\*)) OR (external fixat\*)) OR (plat\*)) OR (open reduction)) OR ((closed reduction) OR (closed management) OR (closed treatment))) OR (cast)) OR (splint)) OR (Conservative treatment)) OR ((Non-operative treatment) OR (nonoperative treatment))) AND ((distal radius fracture\*) OR (distal radi\* fracture\*)) Filters: Clinical Trial Sort by: Most Recent.

**Participant or population:** Patients 60 years or older with distal radius fracture.

**Intervention:** conservative treatment.

**Comparator:** Volar locked plate, K-wire, external fixator.

**Study designs to be included:** randomized controlled trial.

**Eligibility criteria:** Exclusion: (1) no full text available; (2) studies without clinical results.

**Information sources:** PubMed, Embase, Web of science.

**Main outcome(s):** Grip strength, Disabilities of the Arm, Shoulder, and Hand, Patient-rated wrist evaluation score, range of motion.

**Quality assessment / Risk of bias analysis:** We used cochrane risk of bias tool 2.0 for quality assessment.

**Strategy of data synthesis:** Statistical analysis using Stata 15.1 software (StataCorp., 2017, Stata Statistical Software: Release 15, College Station, TX). continuous variables are interpreted based on the weighted SMD and 95% confidence intervals (CIs).

**Subgroup analysis:** N/A.

**Sensitivity analysis:** Sensitivity analyzes were performed to assess suspicious findings in this NMA.

**Country(ies) involved:** United States, Taiwan.

**Keywords:** distal radius fracture, the elder.

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