

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effectiveness of METs With and Without Scapular Mobilization in Treating Patients with Adhesive Capsulitis

#### Protocol summary

##### Study aim

The study aims to assess the comparative effect of METs and (muscle energy techniques) with and without scapular mobilization in patients with adhesive capsulitis. This study will help to highlight various physiological effects for managing adhesive capsulitis. To study the effect of Muscle Energy Technique on pain in patient with adhesive capsulitis.

##### Design

Pragmatic, community based, parallel group, double blinded, randomized controlled trial. Total 377 patients will be enrolled. Patients who met our inclusion criteria will be randomized into two groups.

##### Settings and conduct

Muhammad physical therapy & rehabilitation center  
Multan

##### Participants/Inclusion and exclusion criteria

Inclusion: 1. Age range (e.g 30-60 y) 2. Patients who have completed their conservative treatment for a minimum of 6 Week 3. Patients with pain and Restricted range of motion in the affected shoulder joint 5. Patients who can understand exercise programe 6. Both genders  
Exclusion: 1. Patients with any other pathological disease related to the shoulder 2. Patients with neurological and rheumatological disorders 3. Patients with systemic diseases affecting the musculoskeletal system 4. Patients who may be limited in their capacity to exercise due to cardiovascular, respiratory, or metabolic issues 5. Pregnant or breastfeeding ladies 6. Fractures/dislocations 7. History of acute trauma or previous surgery in the affected shoulder 8. Patients treated with corticoid injection in the affected shoulder in the last 12 months (25, 26).

##### Intervention groups

Group A 188 (who will receive METs with combination of scapular mobilization) and Group B 188 (who will receive METs without scapular mobilization).

##### Main outcome variables

joint range of motion, joint stiffness, adhesions,

independency and quality of life in adhesive capsulitis patients.

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20241220064105N1**

Registration date: **2024-12-26, 1403/10/06**

Registration timing: **prospective**

Last update: **2024-12-26, 1403/10/06**

Update count: **0**

##### Registration date

2024-12-26, 1403/10/06

##### Registrant information

##### Name

Komal Ammar Bukhari

##### Name of organization / entity

Muhammad Institute of Medical Sciences, Multan

##### Country

Pakistan

##### Phone

+92 314 6361728

##### Email address

komalbukhari608@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2025-01-12, 1403/10/23

##### Expected recruitment end date

2025-04-12, 1404/01/23

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**  
empty

**Scientific title**  
Effectiveness of METs With and Without Scapular Mobilization in Treating Patients with Adhesive Capsulitis

**Public title**  
METs With and Without Scapular Mobilization in Treating Patients with Adhesive Capsulitis.

**Purpose**  
Treatment

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
Age range (e.g 30-60 y) Patients who have completed their conservative treatment for a minimum of 6 Week Restricted range of motion of the affected shoulder joint Patients with pain (e.g visual analogue score > 4) in the affected shoulder joint Patients who can understand exercise program and co-operate with therapist Both genders  
**Exclusion criteria:**  
1. Patients with any other pathological disease related to the shoulder (e. g. "rotator cuff tear, impingement syndrome") Patients with neurological and rheumatological disorders affecting the shoulder joint Patients with a history of shoulder surgery or trauma Patients with systemic diseases affecting the musculoskeletal system (e. g., osteoarthritis, rheumatoid arthritis) Patients who may be limited in their capacity to exercise due to cardiovascular, respiratory, or metabolic issues Patients who are pregnant or breastfeeding Fractures/dislocations<sup>8</sup>. History of acute trauma or previous surgery in the affected shoulder Patients treated with corticoid injection in the affected shoulder in the last 12 months

**Age**  
From **30 years** old to **60 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**

- Outcome assessor
- Data analyser

**Sample size**  
Target sample size: **377**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
This randomization will be done by Lottery method to ensure fairness. Medications will be given in numbered white boxes, each with a unique medication number. The treatment codes will be kept by the principal investigator.

**Blinding (investigator's opinion)**  
Double blinded

**Blinding description**  
Statistical analyser and outcome assessor will be kept blind so that the result obtained will be without biasness.

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

The Institutional Ethical Committee of Muhammad Institute of Medical and Allied Sciences

##### Street address

Bosan Road

##### City

Multan

##### Postal code

66000

#### Approval date

2024-12-12, 1403/09/22

#### Ethics committee reference number

MIMAS/19/01/Komal

## Health conditions studied

### 1

#### Description of health condition studied

Adhesive capsulitis

#### ICD-10 code

M75.0

#### ICD-10 code description

Adhesive capsulitis of shoulder

## Primary outcomes

### 1

#### Description

Range of motion

#### Timepoint

12weeks

#### Method of measurement

Goniometer Scale

### 2

#### Description

Shoulder Disability

#### Timepoint

12weeks

#### Method of measurement

SPADI Scale

### 3

#### Description

pain

#### Timepoint

12weeks

#### Method of measurement

NPRS(Numerical pain rating scale)

### Secondary outcomes

empty

### Intervention groups

#### 1

#### Description

Intervention group: will receive METs with combination of scapular mobilization scapular exercises • scapular wall angles• scapular protraction and retraction with Quadruped exercises • scapular dips• scapular punches• scapular cat camel stretch . Muscle Energy Techniques MET for Glenohumeral Joint Restricted Flexion , Abduction and External Rotation, Treatment regime distributed in 12 weeks period, 5 days a week, with 30 repetitions per set and sessions lasting 30 min per day

#### Category

Rehabilitation

#### 2

#### Description

Control group: will receive METs without scapular mobilization , MET for Glenohumeral Joint Restricted Flexion MET for Glenohumeral Joint Restricted Abduction MET for Glenohumeral Joint Restricted External Rotation, Treatment regime distributed in 12 weeks period, 5 days a week, with 30 repetitions per set and sessions lasting 30 min per day

#### Category

Rehabilitation

### Recruitment centers

#### 1

#### Recruitment center

##### Name of recruitment center

Muhammad physical therapy & rehabilitation center  
Multan

##### Full name of responsible person

Maliha Khalid Khan

##### Street address

Bosan Road

##### City

Multan

##### Postal code

66000

##### Phone

+92 314 6361728

##### Email

malihatareen1997@gmail.com

### Sponsors / Funding sources

#### 1

#### Sponsor

##### Name of organization / entity

Muhammad Institute of Rehabilitation Sciences,  
Multan

##### Full name of responsible person

Qurat ul Ain

##### Street address

Bosan Road

##### City

Multan

##### Postal code

66000

##### Phone

+92 312 6862130

##### Email

qain0635@gmail.com

##### Grant name

Student fund

##### Grant code / Reference number

MIMAS/6/2/Rabia

##### Is the source of funding the same sponsor organization/entity?

Yes

##### Title of funding source

Muhammad Institute of Rehabilitation Sciences, Multan

##### Proportion provided by this source

70

##### Public or private sector

Private

##### Domestic or foreign origin

Domestic

##### Category of foreign source of funding

empty

##### Country of origin

##### Type of organization providing the funding

Academic

### Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Muhammad Institute of Medical and Allied Sciences,  
Multan

##### Full name of responsible person

Maliha Khalid Khan

##### Position

Lecturer

##### Latest degree

Medical doctor

##### Other areas of specialty/work

Physiotherapy

##### Street address

Bosan Road

##### City

Multan

##### Province

Punjab

##### Postal code

66000

**Phone**

+92 312 6862130

**Email**

malihatareen1997@gmail.com

**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**

Muhammad Institute of Medical Sciences and Rehabilitation center, Multan

**Full name of responsible person**

Komal Ammar Bukhari

**Position**

Lecturer

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Physiotherapy

**Street address**

Bosan Road

**City**

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**Province**

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**Person responsible for updating data**

**Contact**

**Name of organization / entity**

Muhammad Institute of Medical and Allied Sciences, Multan

**Full name of responsible person**

Rabia Abbas

**Position**

Student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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**Email**

rabiahabbas12@gmail.com

**Sharing plan**

**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available