

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

08 Jul 2026

### Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

#### Protocol summary

##### Study aim

The main aim of this study is to see the comparison between stretching of respiratory accessory muscles and ribs mobilisation to improve chest expansion, level of dyspnea and vital capacity in COPD patients

##### Design

Two parallel groups: group A have stretching of respiratory accessory muscles and group B have ribs mobilization. Sample size is 50 which is collected from single center (Rabia Trust Hospital Faisalabad). Randomization will be through lottery method, single blinded study will be conducted in which only patient would be blinded.

##### Settings and conduct

This study is conducted in Rabia Trust Hospital Faisalabad. Randomization is done by lottery method. Sealed envelope method is use for blinding of participant.. grouping of 2 envelopes showed to patient, once he selected one of them, he will be the part of that Two groups are made. Sealed envelope will made upon with allocation of participants in both groups can be possible without biasness

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria: Age: 30-55 years, Patients who are diagnosed with COPD according to GOLD, Patients with acute and moderate history of COPD, Both males and females, Haemodynamically stable patients who will be willing participate in the study. Exclusion Criteria: Patients having lung carcinoma and acute inflammatory condition, Patients having cardiac or neuromuscular disease, Patients having recent surgery history and recent chest injury, Patients having severe or very severe history of COPD, COVID-19 patients, Patients with broken ribs, bruised ribs, fractured ribs, Patients having Fibromyalgia, Patients with costochondritis, Patients with pleurisy.

##### Intervention groups

Two groups Group A stretching of respiratory accessory muscles Group B ribs mobilization

#### Main outcome variables

Xiphisteranl chest expansion, Perceived dyspnea, Vital capacity

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220514054851N1**

Registration date: **2022-05-27, 1401/03/06**

Registration timing: **prospective**

Last update: **2022-05-27, 1401/03/06**

Update count: **0**

##### Registration date

2022-05-27, 1401/03/06

##### Registrant information

##### Name

Rabia Anwar

##### Name of organization / entity

The University Of Faisalabad

##### Country

Pakistan

##### Phone

+92 300 8431018

##### Email address

mspp-fa20-025@tuf.edu.pk

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-06-13, 1401/03/23

##### Expected recruitment end date

2022-06-20, 1401/03/30

##### Actual recruitment start date

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

**Public title**

Comparative effects of stretching respiratory accessory muscles and ribs mobilization to improve chest expansion in COPD patients.

**Purpose**

Education/Guidance

**Inclusion/Exclusion criteria****Inclusion criteria:**

Patients within age group of 30-55 years Patients who are diagnosed with chronic obstructive pulmonary disease according to global initiative for chronic obstructive pulmonary disease Patients with acute and moderate history of chronic obstructive pulmonary disease Both males and females Haemodynamically stable patients who will be willing participate in the study

**Exclusion criteria:**

Patients having lung carcinoma and acute inflammatory condition Patients having cardiac or neuromuscular disease Patients having recent surgery history and recent chest injury Patients having severe or very severe history of chronic obstructive pulmonary disease Corona virus disease of 2019 patients Patients with broken ribs, bruised ribs, fractured ribs Patients having Fibromyalgia Patients with costochondritis Patients having pleurisy

**Age**

From **30 years** old to **55 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

- Participant

**Sample size**

Target sample size: **50**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Randomization is done by lottery method. Sealed envelope method is use for blinding of participant. Grouping of 2 envelopes showed to patient, once he selected one of them, he will be the part of that Two groups are made. Sealed envelope will made upon with allocation of participants in both groups can be possible without biasness

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Participant is blinded that means they don't know what treatment the other group gets

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of the university of faisalabad

**Street address**

Abdullah city, samundari road

**City**

Faisalabad

**Postal code**

38000

**Approval date**

2022-03-13, 1400/12/22

**Ethics committee reference number**

1021

**Health conditions studied****1****Description of health condition studied**

Chest expansion in COPD

**ICD-10 code****ICD-10 code description****Primary outcomes****1****Description**

Chest expansion

**Timepoint**

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

**Method of measurement**

Measuring tape

**Secondary outcomes****1****Description**

Dyspnea

**Timepoint**

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

**Method of measurement**

Modified borg dyspnea scale

## 2

### **Description**

Vital capacity

### **Timepoint**

Total 4 weeks of interventional period in which every week 3 sessions and assessment of chest expansion at baseline then after 2 weeks and again after 2 weeks

### **Method of measurement**

Spirometry

## **Intervention groups**

### 1

#### **Description**

Intervention group 1 will receive stretching of respiratory accessory muscles. There will be two sets, ten repetitions for each muscle with a one-min interval between them. The session will be given 3 days a week and it will be continued for 4 weeks. Variables will be measured at baseline, after 2 weeks and again after 2 weeks.

#### **Category**

Rehabilitation

### 2

#### **Description**

Intervention group 2 will receive ribs mobilization. There will be two sets of ten repetitions for each rib with one min interval between them for 3 days a week and it will be continued for 4 weeks. Variables will be measured at baseline, after 2 weeks and again after 2 weeks.

#### **Category**

Rehabilitation

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

Rabia Trust Hospital, Faisalabad

##### **Full name of responsible person**

Dr. Mehar Imran ( pulmonologist)

##### **Street address**

Abdullah city, samundari road

##### **City**

Faisalabad

##### **Postal code**

38000

##### **Phone**

+92 300 8431018

##### **Email**

rabiaanwar853@gmail.com

## **Sponsors / Funding sources**

### 1

#### **Sponsor**

**Name of organization / entity**

The university of faisalabad

#### **Full name of responsible person**

Dr Sidra Majeed

#### **Street address**

Abdullah city, samundari road

#### **City**

Faisalabad

#### **Postal code**

38000

#### **Phone**

+92 300 8431018

#### **Email**

rabiaanwar853@gmail.com

#### **Grant name**

#### **Grant code / Reference number**

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

Yes

#### **Title of funding source**

The university of faisalabad

#### **Proportion provided by this source**

100

#### **Public or private sector**

Private

#### **Domestic or foreign origin**

Foreign

#### **Category of foreign source of funding**

UN agencies and international organizations

#### **Country of origin**

Pa

#### **Type of organization providing the funding**

Academic

## **Person responsible for general inquiries**

#### **Contact**

##### **Name of organization / entity**

The university of faisalabad

##### **Full name of responsible person**

Dr Sidra Majeed

##### **Position**

Assistant professor

##### **Latest degree**

Master

##### **Other areas of specialty/work**

Physiotherapy

##### **Street address**

Abdullah city, samundari road

##### **City**

Faisalabad

##### **Province**

Punjab

##### **Postal code**

38000

##### **Phone**

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##### **Email**

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## **Person responsible for scientific**

## **inquiries**

### **Contact**

**Name of organization / entity**

The university of faisalabad

**Full name of responsible person**

Dr Sidra Majeed

**Position**

Assistant professor

**Latest degree**

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**Other areas of specialty/work**

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**Email**

rabiaanwar853@gmail.com

## **Person responsible for updating data**

### **Contact**

**Name of organization / entity**

Rabia trust hospital, faisalabad

**Full name of responsible person**

Dr Mehr Imran

**Position**

Consultant pulmonologist

**Latest degree**

Master

**Other areas of specialty/work**

Pulmonologist

**Street address**

Abdullah city, samundari road

**City**

Faisalabad

**Province**

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**Phone**

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**Email**

rabiaanwar853@gmail.com

## **Sharing plan**

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

Yes - There is a plan to make this available

**Study Protocol**

Yes - There is a plan to make this available

**Statistical Analysis Plan**

Yes - There is a plan to make this available

**Informed Consent Form**

Yes - There is a plan to make this available

**Clinical Study Report**

Yes - There is a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available

**Title and more details about the data/document**

IPD collected for primary and secondary outcome measures

**When the data will become available and for how long**

January 2023

**To whom data/document is available**

People working in any domain can be authorized to get this data

**Under which criteria data/document could be used**

Any wrong information or editorial errors

**From where data/document is obtainable**

This data is only available on demand via email mention to the person responsible

**What processes are involved for a request to access data/document**

Documents can also be processed via university emails

**Comments**

Data is private legacy respect it