

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

23 Feb 2026

### Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients

#### Protocol summary

##### Study aim

The aim of this study is to focus on understanding the mechanics of the spontaneous breathing pattern of people with bronchiectasis, and its determinants, to provide a rational basis for physical therapy management. Interventions that focus on optimizing respiratory mechanics may result in a better therapeutic outcome rather than a focus on breathing patterns that primarily may be the result of impaired respiratory mechanics.

##### Design

A randomized clinical trial with parallel groups, with 20 patients divided into 2 groups by lottery

##### Settings and conduct

The study will be conducted at Gulab Devi Chest Hospital Lahore

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: both men and women; aged between 40-60 years; diagnosed with Acute bronchiectasis.

Exclusion criteria: patients with cardiac, metabolic or endocrine disorders, having an acute chest infection, cardiac or other surgeries; patients with a diagnosis of cancer or active gastrointestinal problems; patients requiring supplemental oxygen and patients with chronic bronchiectasis.

##### Intervention groups

Group A will be treated by stacked breathing and group B will be treated by pursed-lip breathing. Both groups will be followed by standardized physiotherapy treatment which includes active cycling breathing techniques (ACBT).

##### Main outcome variables

FEV,FVC,PEF and Wellbeing

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20211222053488N1**

Registration date: **2022-01-06, 1400/10/16**

Registration timing: **retrospective**

Last update: **2022-01-06, 1400/10/16**

Update count: **0**

##### Registration date

2022-01-06, 1400/10/16

##### Registrant information

###### Name

Salman Deedar

###### Name of organization / entity

Riphah International University, Lahore, Pakistan

###### Country

Pakistan

###### Phone

+92 300 4477558

###### Email address

saloo.jutialian013@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-07-01, 1399/04/11

##### Expected recruitment end date

2021-01-30, 1399/11/11

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients

**Public title**

Comparative Effects Of Pursed-Lip Breathing And Stacked Breathing On Pulmonary Function And Wellbeing In Bronchiectasis Patients

**Purpose**

Diagnostic

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

Both genders. Aged between 40 to 60 years. Acute bronchiectasis

**Exclusion criteria:**

Patients with cardiac, metabolic or endocrine disorders. Acute chest infection. Having cardiac or other surgeries. Patients with a diagnosis of cancer or active gastrointestinal problems. Those requiring supplemental oxygen. Chronic bronchiectasis

**Age**

From **40 years** old to **60 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **20**

More than 1 sample in each individual

Number of samples in each individual: **1**

In this study each participant contribute as one sample to the trail.

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Simple random sampling will be used to select 20 patients. After taking consent these 20 patients will be equally recruited in groups either in Intervention group A or Intervention group B by Lottery method of randomization. These 20 patients of the population will be assigned a number, after which numbers will be selected at random. We will draw numbers from the box randomly to choose the sample. 10 individuals will be placed in each group.

**Blinding (investigator's opinion)**

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

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

empty

**Ethics committees****1****Ethics committee**

**Name of ethics committee**

Riphah ethical committee

**Street address**

28M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat, Lahore, Pakistan

**City**

Lahore

**Postal code**

42000

**Approval date**

2021-07-01, 1400/04/10

**Ethics committee reference number**

342573

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

Bronchiectasis

**ICD-10 code**

J47

**ICD-10 code description**

Bronchiectasis

**Primary outcomes****1****Description**

FEV

**Timepoint**

First visit (baseline) and after 4 weeks

**Method of measurement**

peak flow meter will be used as a tool in this study

**2****Description**

FVC

**Timepoint**

First visit (baseline) and after 4 weeks

**Method of measurement**

peak flow meter will be used as a tool in this study

**3****Description**

PEF

**Timepoint**

First visit (baseline) and after 4 weeks

**Method of measurement**

peak flow meter will be used as a tool in this study

**4****Description**

Wellbeing

**Timepoint**

First visit (baseline) and after 4 weeks

**Method of measurement**

St. George questionnaire

## Secondary outcomes

empty

## Intervention groups

1

### Description

Intervention group 1: Stacked breathing will be used 3-4 times per day with 8-10 repetitions for 4-5 days per week along with baseline treatment of ACBT. Each standardized ACBT cycle will be around two minutes with duration of each session for 15 mins, 3-4 times daily. Peak flow meter will be used as a measuring tool.

### Category

Rehabilitation

2

### Description

Intervention group 2: Pursed-lip breathing will be used 3-4 times per day with 8-10 repetitions for 4-5 days per week along with baseline treatment of ACBT. Each standardized ACBT cycle will be around two minutes with duration of each session for 15 mins, 3-4 times daily. St. George questionnaire will be used as a measuring tool.

### Category

Rehabilitation

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

Gulab Devi Chest Hospital Lahore

#### Full name of responsible person

Qurat-ul-Ain

#### Street address

28 M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat, Lahore, Pakistan

#### City

Lahore

#### Postal code

42000

#### Phone

+92 300 4477558

#### Email

saloo.jutialian013@gmail.com

## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

Riphah International University, Lahore, Pakistan

#### Full name of responsible person

Qurat-ul-Ain

#### Street address

28-M, Quaid-e-Azam, Industrial Estate, Kot Lakhpat,

Lahore, Pakistan

#### City

Lahore

#### Postal code

42000

#### Phone

+92 312 1707719

#### Email

Saloo.jutialian013@gmail.com

#### Grant name

#### Grant code / Reference number

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

No

#### Title of funding source

Nil

#### Proportion provided by this source

80

#### 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

Riphah International University

#### Full name of responsible person

Salman

#### Position

Student

#### Latest degree

Bachelor

#### Other areas of specialty/work

Physiotherapy

#### Street address

street no 5, house no 10, wahdat colony, Jutiyal, Gilgit

#### City

Lahore

#### Province

Punjab

#### Postal code

15150

#### Phone

+92 355 4459875

#### Email

saloo.jutialian013@gmail.com

## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

Riphah International University

#### Full name of responsible person

Salman

**Position**

Studen

**Latest degree**

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**Other areas of specialty/work**

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**Person responsible for updating data****Contact****Name of organization / entity**

Riphah International University

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

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

There is no further information

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

No - There is not a plan to make this available

**Informed Consent Form**

No - There is not a plan to make this available

**Clinical Study Report**

No - There is not 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