

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

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Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah International University, Lahore, Pakistan

Full name of responsible person

Qurat-ul-Ain

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

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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

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Person responsible for scientific inquiries

Contact

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Full name of responsible person

Salman

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

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

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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