

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 2026

evaluation the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID 19 patients after recovery from the acute phase

Protocol summary

Study aim

To identify the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID19 patients after recovery from the acute phase

Design

Clinical trial with control group, with parallel groups, randomized on 70 patients, for randomization, permutation blocks with 4 samples in each block using Random Allocation software was used.

Settings and conduct

Breathing exercises in the form of educational videos will be provided to the intervention group in a virtual way using the training site, and patients should do the exercises for 8 weeks 5 days a week, three times a day and three repetitions each time.

Participants/Inclusion and exclusion criteria

Definite diagnosis of covid 19 with PCR Hospitalization during the acute phase of the disease Lung involvement with a typical pattern of covid 19 in chest X ray or chest CT scan Being clinically stable Being able to understand and perform the virtual respiratory exercises as given to them in the study Age over 18 and less than 60 years

Intervention groups

Virtual pulmonary rehabilitation in the form of breathing exercise for intervention group

Main outcome variables

The perceived dyspnea severity during daily activities, The severity of dyspnea, General health-related quality of life, Psychological state and mood disorder

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200930048892N1**
Registration date: **2020-10-18, 1399/07/27**

Registration timing: **prospective**

Last update: **2020-10-18, 1399/07/27**

Update count: **0**

Registration date

2020-10-18, 1399/07/27

Registrant information

Name

Fariba Erfani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 71 5383 8166

Email address

erfanif70@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-20, 1399/07/29

Expected recruitment end date

2021-02-17, 1399/11/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

evaluation the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID 19 patients after recovery from the acute phase

Public title

evaluation the effect of virtual pulmonary rehabilitation

on covid 19 patients

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Definite diagnosis of covid 19 with PCR Hospitalization during the acute phase of the disease Lung involvement with a typical pattern of covid 19 in chest X ray or chest CT scan Being clinically stable Being able to understand and perform the virtual respiratory exercises as given to them in the study Age > 18 and < 60 years

Exclusion criteria:

COPD, asthma and any other respiratory disease Neuromuscular disorders that affect lung function History of ischemic heart disease, congestive heart failure and uncontrolled hypertension Asymptomatic carriers Sever comorbid conditions Disagree to participate in the study Lack of access to the internet and virtual applications

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **70**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization method was performed based on random permutation blocks with 4 samples in each block and a random list of data was obtained using Random Allocation software. Independent T test and paired T test will be used for statistical analysis of the data. Blindness will be done for people who measure the outcomes and people who analyze the data

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

Ethics committee of Shiraz University of Medical Sciences

Street address

Medical School. Imam Hossein Square.Zand Stree .Shiraz Cityt

City

shiraz

Province

Fars

Postal code

7134845794

Approval date

2020-10-02, 1399/07/11

Ethics committee reference number

IR.SUMS.MED.REC.1399.364

Health conditions studied

1

Description of health condition studied

COVID 19

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The perceived dyspnea severity during daily activities

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Medical Research Council Scale

2

Description

The severity of dyspnea

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Modified Borg Scale

3

Description

General health-related quality of life

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Short-Form 36 (SF-36)

4

Description

psychological state and mood disorder

Timepoint

Before intervention and 8 weeks after study

Method of measurement

The Hospital Anxiety and Depression Scale (HADS)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: virtual pulmonary rehabilitation in the form of breathing exercise

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Faghihi hospital

Full name of responsible person

Seyed Mohammad Kazem Tadayyon

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2

Recruitment center

Name of recruitment center

Ali Asghar hospital

Full name of responsible person

Parnian Nikmanesh

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3

Recruitment center

Name of recruitment center

Shahid Chamran hospital

Full name of responsible person

Seyed Rouhollah Mousavi

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chamhosp@sums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Abbas Rezaeian zade

Street address

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info@sums.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shiraz University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

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

Shiraz University of Medical Sciences

Full name of responsible person

Fariba Erfani

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine

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Person responsible for scientific inquiries

Contact

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Full name of responsible person

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Position

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Person responsible for updating data

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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