

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 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 rehabilitaion

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

Shiraz
Province
Fars
Postal code
7194815644
Phone
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Email
chamhosp@sums.ac.ir

Recruitment centers

1

Recruitment center

Name of recruitment center
Shahid Faghihi hospital
Full name of responsible person
Seyed Mohammad Kazem Tadayyon
Street address
Zand Blvd, Shiraz City
City
Shiraz
Province
Fars
Postal code
7134844119
Phone
+98 71 3235 1087
Email
faghihihsp@sums.ac.ir

2

Recruitment center

Name of recruitment center
Ali Asghar hospital
Full name of responsible person
Parnian Nikmanesh
Street address
Meshkin fam street
City
Shiraz
Province
Fars
Postal code
7143918796
Phone
+98 71 3228 8907
Email
aliasghar@sums.ac.ir

3

Recruitment center

Name of recruitment center
Shahid Chamran hospital
Full name of responsible person
Seyed Rouhollah Mousavi
Street address
Chamran Blvd, Shiraz City
City

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Shiraz University of Medical Sciences
Full name of responsible person
Abbas Rezaeian zade
Street address
Zand Blvd. Shiraz Univercity of Science, Shiraz City
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Province
Fars
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7134814336
Phone
+98 71 3230 5410
Email
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

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Full name of responsible person

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Position

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Person responsible for updating data

Contact

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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