

Clinical Trial Protocol

Iranian Registry of Clinical Trials

15 Jul 2026

Evaluation of the effectiveness of pulmonary rehabilitation and exercise therapy in reducing the length of hospital stay of patients with Covid-19

Protocol summary

Study aim

Evaluation of the effect of exercise therapy in reducing the length of hospital stay of patients with Covid-19 disease.

Design

A non-control clinical trial will be performed on 100 patients with Covid 19 which are hospitalized. This study is not randomized and exercise therapy will be performed for all patients.

Settings and conduct

This study will be performed in Shahid Taleghani Hospital. The procedure will be as follows: hospitalized patients will be divided into two groups with arterial oxygen saturation below 90% and above 90%. For the group with arterial oxygen saturation below 90%, exercise therapy, including pulmonary rehabilitation at the patient's bedside, will be performed by a sports medicine specialist. In the group with arterial oxygen saturation above 90%, aerobic exercise therapy will include walking in the ward.

Participants/Inclusion and exclusion criteria

Patients with Covid-19 disease with arterial oxygen saturation below 90% who require hospitalization.

Intervention groups

Intervention 1: Bedside exercise therapy for patients admitted with Covid 19 disease with oxygen saturation below 90% Intervention 2: Aerobic exercise therapy for patients admitted with Covid 19 disease with oxygen saturation above 90%

Main outcome variables

The effect of exercise therapy on reducing the length of hospitalization of patients with Covid 19, the effect of exercise therapy on faster recovery of arterial blood oxygen saturation, the effect of exercise therapy on improving the patient's clinical symptoms including fever, shortness of breath and lethargy

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180226038870N1**

Registration date: **2021-03-05, 1399/12/15**

Registration timing: **prospective**

Last update: **2021-03-05, 1399/12/15**

Update count: **0**

Registration date

2021-03-05, 1399/12/15

Registrant information

Name

Narges Labibzadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 2233 9949

Email address

ddrn1z@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-10, 1400/02/20

Expected recruitment end date

2021-09-11, 1400/06/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effectiveness of pulmonary rehabilitation and exercise therapy in reducing the length of hospital stay of patients with Covid-19	
Public title	Evaluation of the effectiveness of pulmonary rehabilitation and exercise therapy in reducing the length of hospital stay of patients with Covid-19
Purpose	Treatment
Inclusion/Exclusion criteria	Inclusion criteria: Pulmonary involvement seen in pulmonary CT spiral consistent with Covid-19 changes diagnosed by a pulmonologist Positive PCR test for Covid-19 from respiratory or bloody secretions Normal white blood cell counts with decreased lymphocytes Drop in arterial blood oxygen saturation below 90% using finger pulse oximetry Exclusion criteria: The patient does not want to participate in the study or attend another trial. Patients who are severely ill and need ventilator ventilation. Patients with musculoskeletal or neurological disorders that prevent the patient from walking normally.
Age	No age limit
Gender	Both
Phase	N/A
Groups that have been masked	No information
Sample size	Target sample size: 100
Randomization (investigator's opinion)	N/A
Randomization description	
Blinding (investigator's opinion)	Not blinded
Blinding description	
Placebo	Not used
Assignment	Single
Other design features	
Secondary Ids	empty
Ethics committees	
<u>1</u>	
Ethics committee	
Name of ethics committee	Ethics committee of Shahid Beheshti University of Medical Sciences
Street address	Taleghani Hospital, Danshjoo Blv, Velenjak, Shahid Chamran Highway, Tehran, Iran

City	Tehran
Province	Tehran
Postal code	1985717443
Approval date	2021-02-14, 1399/11/26
Ethics committee reference number	IR.SBMU.MSP.REC.1399.729
Health conditions studied	
<u>1</u>	
Description of health condition studied	Covid -19
ICD-10 code	J06
ICD-10 code description	Acute upper respiratory infections of multiple and unspecified sites
Primary outcomes	
<u>1</u>	
Description	Duration of hospitalization
Timepoint	Daily
Method of measurement	Patients' records
<u>2</u>	
Description	Fever
Timepoint	Daily
Method of measurement	Oral thermometer
<u>3</u>	
Description	Patient walking distance
Timepoint	Daily
Method of measurement	Meter
<u>4</u>	
Description	Age
Timepoint	Initial of trial
Method of measurement	Birth certificate

5

Description

Shortness of breath

Timepoint

Daily

Method of measurement

Respiratory rate

6

Description

Arterial blood oxygen saturation

Timepoint

Daily

Method of measurement

Digital pulse oxymetry

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: pulmonary rehabilitation: Daily pulmonary rehabilitation for patients with COVID-19 hospitalized with arterial blood oxygen saturation below 90%, patient will be encouraged to take deep breaths for 30 minutes at heresies. At the same time, the chest muscles will be massaged by a sports medicine specialist. The massage will be done with the palm of the hand, parallel to the ribs and from front to back for 15 minutes. The second movement will be the tapping of the muscles around the chest. This movement will be performed by a sports medicine specialist for 15 minutes while holding the cup in the shape of a hand. This intervention will continue until the patient's arterial blood oxygen saturation reaches above 90%.

Category

Treatment - Other

2

Description

Intervention group: Aerobic exercise for patients with 19 patients admitted to hospital with arterial blood oxygen saturation above 90%. Patients will initially be encouraged to walk in the ward for 6 minutes. After they were able to walk this time, we gradually increase the walking time. The rate of increase will be 5 minutes every 2 days

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Taleghani Hospital

Full name of responsible person

Mehrshad Poursaeid Esfahani

Street address

Shahid Taleghani hospital, Danshjoo Blv, Velenjak, Shahid Chamran Highway, Tehran, Iran

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Tehran

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1985717443

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+98 21 2243 9948

Email

Ddrnlz@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Afshin Zarghi

Street address

Shahid Beheshti university of medical sciences, Danshjoo Blv, Velenjak, Shahid Chamran Highway, Tehran, Iran

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1985717443

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zarghi@sbmu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahid Beheshti 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
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Narges Labibzadeh
Position
Resident
Latest degree
Medical doctor
Other areas of specialty/work
Sport Medicine
Street address
Shahid Taleghani hospital, Danshjoo Blv, Velenjak,
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Person responsible for scientific inquiries

Contact

Name of organization / entity
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Full name of responsible person
Narges Labibzadeh
Position
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Medical doctor
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Person responsible for updating data

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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

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All data is potentially shareable after unidentified individuals

When the data will become available and for how long

Access starts 6 months after the results are published

To whom data/document is available

People working in academic and scientific institutions

Under which criteria data/document could be used

The data can be used only with the permission of the author responsible for the study and only for scientific purposes such as sharing in scientific situations. In order to send a request for access to data or documents, it is necessary for the requesting person to send an e.mail to the responsible author and state the purpose of the request for access to data.

From where data/document is obtainable

To receive data and documents related to the project, it is necessary to send an e.mail to the responsible author. Named: Mehrshad Poursaeed Esfahani e.mail: mpoorsaid@yahoo.com Address: Shahid Chamran Highway, Yemen St., Daneshjoo Blvd., Shahid Taleghani Hospital And contact number: 982122439948

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

After sending the e.mail to the responsible author, within 1-2 weeks, the responsible author will send the appropriate answer to the requesting person.

Comments

