

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

12 Jun 2026

### Evaluation the effect of captopril on definitive patients with COVID-19(second phase)

#### Protocol summary

##### Study aim

Determining the interventional effect of captopril in the treatment of definitive patients with COVID-19 and its effect on pneumonia manifestations and clinical and laboratory symptoms of patients

##### Design

Clinical trial with control group, parallel, single blind, phase 3 on 40 patients, simple randomization method using closed door envelope

##### Settings and conduct

This study is performed with single blind (Participating patients) in the corona ward of Imam Reza and Ghaem Hospital in Mashhad on patients with COVID-19 pneumonia. Eligible patients with the same diet and underlying disease are divided into control and intervention groups after obtaining consent. Captopril treatment is performed for 14 days. After 14 days, the variables will be evaluated and the two groups will be compared.

##### Participants/Inclusion and exclusion criteria

Patients with Covoid 19 admitted with eligibility.  
Inclusion criteria: Positive pcr test  
Exclusion criteria: pregnant or lactating, hereditary angioedema, psoriasis, NSAID use

##### Intervention groups

In this study, patients with PCR confirmed COVID-19 are examined. First, patients who meet the inclusion criteria are selected. After obtaining the patient's consent, complement therapy with captopril is started. The recommended dose for this supplement is one 25 mg tablet every 8 hours for two weeks from the start of treatment. It has been tried that patients are on the same medication regimen and are similar in terms of variables such as age and underlying disease. Minimize the confounding effect of these variables.

##### Main outcome variables

Oxygen saturation rate; length of hospitalization; mortality rate

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20140824018915N10**

Registration date: **2021-09-23, 1400/07/01**

Registration timing: **registered\_while\_recruiting**

Last update: **2021-09-23, 1400/07/01**

Update count: **0**

##### Registration date

2021-09-23, 1400/07/01

##### Registrant information

##### Name

Mousalreza Hosseini

##### Name of organization / entity

Mashhad University Of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 80 1274 2513

##### Email address

hoseinmr@mums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2021-09-21, 1400/06/30

##### Expected recruitment end date

2021-11-21, 1400/08/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

**Scientific title**

Evaluation the effect of captopril on definitive patients with COVID-19(second phase)

**Public title**

The effect of captopril on definitive patients with coronavirus pneumonia

**Purpose**

Supportive

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

COVID-19 disease confirmed by imaging (HRCT) or Real Time PCR

**Exclusion criteria:**

Pregnancy Breastfeeding Bilateral renal artery stenosis Hereditary angioedema Psoriasis NSAID consumption Patients who have been taking Captopril before undergoing Covid due to other underlying diseases (such as hypertension, heart failure, myocardial infarction, etc.) will not be included in the study. Patients in need of ICU admission The patient participates in any other clinical trial on the corpus associated with therapeutic intervention. (Before entering this study)

**Age**

No age limit

**Gender**

Both

**Phase**

2-3

**Groups that have been masked**

- Participant

**Sample size**

Target sample size: **400**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Simple randomization with table of random numbers available at "www.randomization.com" website will be used. Numbers will be placed in sealed envelopes and each envelope is assigned to one participant placing them in one of the two groups

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Patients will be unaware of which intervention and control groups they belong to

**Placebo**

Not used

**Assignment**

Parallel

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

empty

**Ethics committees****1**

Ethics committee

**Name of ethics committee**

Ethics committee of Mashhad University of Medical Science

**Street address**

Central Building of Mashhad University of Medical Sciences (Ghorshi), Daneshgah 16, Daneshgah Street

**City**

Mashhad

**Province**

Razavi Khorasan

**Postal code**

9117699199

**Approval date**

2021-08-28, 1400/06/06

**Ethics committee reference number**

IR.MUMS.REC.1400.157

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

Coronavirus pneumonia

**ICD-10 code**

U07.1

**ICD-10 code description**

This code assigned to a disease diagnosis of COVID-19 confirmed by laboratory testing

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

Percentage of oxygen secretion

**Timepoint**

At the beginning of the study (before the intervention) and 14 days after the start of taking captopril

**Method of measurement**

Using a pulse oximeter

**2****Description**

Mortality rate

**Timepoint**

At the end of hospitalization of patients

**Method of measurement**

According to the physician report

**3****Description**

Duration of hospitalization

**Timepoint**

At the end of hospitalization of patients

**Method of measurement**

According to the physician report

**Secondary outcomes**

empty

## Intervention groups

### 1

#### Description

Intervention group: In addition to the usual treatment regimen, patients receive captopril at a dose of one 25 mg tablet every 8 hours for 2 weeks from the start of treatment (Without knowing that this drug has entered their treatment regimen)

#### Category

Treatment - Drugs

### 2

#### Description

Control group: Patients in this group receive only routine treatment

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Corona ward in Imam Reza Hospital of Mashhad

##### Full name of responsible person

Mousalreza Hoseini

##### Street address

Imam Reza (AS) Hospital, Imam Reza (AS) Square, Ibn Sina St.

##### City

Mashhad

##### Province

Razavi Khorasan

##### Postal code

91379 13316

##### Phone

+98 51 3854 3031

##### Email

hoseinimr@mums.ac.ir

### 2

#### Recruitment center

##### Name of recruitment center

Ghaem Hospital

##### Full name of responsible person

Zahra Meshkat

##### Street address

Ghaem Hospital, Ahmad Abad AVE

##### City

Mashhad

##### Province

Razavi Khorasan

##### Postal code

99199-91766

##### Phone

+98 51 3841 3492

##### Email

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Full name of responsible person

Dr Mohsen Tafaghodi

##### Street address

Central Building of Mashhad University of Medical Sciences (Ghorshi), Daneshgah 16, Daneshgah street

##### City

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##### Province

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345 - 91357

##### Phone

+98 51 3841 2081

##### Email

ramresearch@mums.ac.ir

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Mashhad 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

Mashhad University of Medical Sciences

##### Full name of responsible person

Mousalreza Hoseini

##### Position

Assistant professor

##### Latest degree

Specialist

##### Other areas of specialty/work

Internal Medicine

##### Street address

Ahmad Abad Ave, Ghaem hospital

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##### Province

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## Person responsible for scientific inquiries

### Contact

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Mashhad University of Medical Sciences  
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Mousalreza Hoseini  
**Position**  
Assistant professor  
**Latest degree**  
Specialist  
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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

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