

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### Evaluation of effectiveness of Intravenous vitamin c in Patients with COVID-19 Referred to Imam Khomeini Hospital: a clinical trial

#### Protocol summary

##### Study aim

Evaluation of effectiveness of Intravenous vit c in Patients with COVID-19

##### Design

Two arm parallel group randomized trial with sample size 110 patients. In case group 55 patients treat with intravenous vitamin c and Hydroxychloroquine 400 mg in the first day and then 200 mg BID plus Atazanavir / Ritonavir 300/100 for 5 days. In control group 55 patients treat with Hydroxychloroquine 400 mg in the first day and then 200 mg BID plus Atazanavir / Ritonavir 300/100 for 5 days. Clinical, laboratory and radiologic responses and need to ICU admission evaluate in two groups. The data gather in questionnaire and then analysis with SPSS version 22.

##### Settings and conduct

The corona ward in Imam Khomeini Hospital, Theran, Iran.

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria: Definite or probable case of covid-19  
At least 18 years old  
Exclusion Criteria: The Patient with chronic renal diseases or ESRD G6PD deficiency

##### Intervention groups

Intravenous vitamin c

##### Main outcome variables

clinical sign and symptoms  
Laboratory findings

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200411047025N1**  
Registration date: **2020-04-14, 1399/01/26**  
Registration timing: **prospective**

Last update: **2020-04-14, 1399/01/26**

Update count: **0**

##### Registration date

2020-04-14, 1399/01/26

##### Registrant information

###### Name

Fereshteh Ghiasvand

###### Name of organization / entity

###### Country

Iran (Islamic Republic of)

###### Phone

+98 21 6119 2811

###### Email address

ghiasvand\_62@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-04-18, 1399/01/30

##### Expected recruitment end date

2020-05-19, 1399/02/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Evaluation of effectiveness of Intravenous vitamin c in Patients with COVID-19 Referred to Imam Khomeini Hospital: a clinical trial

##### Public title

Effect of Intravenous vitamin c in Patients with COVID-19

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

###### Inclusion criteria:

At least 18 years old  
The case of definite or probable of covid-19

**Exclusion criteria:**

The patient with chronic renal failure or dialysis  
The patient with G6PD deficiency

**Age**

From **18 years** old

**Gender**

Both

**Phase**

2-3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **110**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

The block randomization method is designed to randomize subjects into groups that result in equal sample sizes. This method is used to ensure a balance in sample size across groups over time. In this study we will be considered 4 patients in a block.

**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 Tehran University of Medical Sciences

**Street address**

Keshavarz Blvd

**City**

Tehran

**Province**

Tehran

**Postal code**

1419733141

**Approval date**

2020-03-30, 1399/01/11

**Ethics committee reference number**

IR.TUMS.VCR.REC.1399.078

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

covid-19

**ICD-10 code**

U07.1

**ICD-10 code description**

COVID-19, virus identified

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

improvement of SPO2 (stands for peripheral capillary oxygen saturation)

**Timepoint**

Daily, until 3-5 days or discharge

**Method of measurement**

pulse oximetry

**Secondary outcomes****1****Description**

fever subside

**Timepoint**

4 times a day until 3-5 days or discharge

**Method of measurement**

termometer

**2****Description**

CRP

**Timepoint**

Every other day until discharge

**Method of measurement**

Laboratory test

**3****Description**

respiratory rate

**Timepoint**

4 times a day until 3-5 days or discharge

**Method of measurement**

physical examination

**4****Description**

lymphocytosis

**Timepoint**

every other day until discharge

**Method of measurement**

laboratory test

**5****Description**

creatinine

**Timepoint**

every other day until discharge

**Method of measurement**

Laboratory test

## Intervention groups

### 1

#### Description

Intervention group: case group 55 patients treat with intravenous vitamin c 1.5 gram 4 times a day and Hydroxychloroquine 400 mg in the first day and then 200 mg BID plus Atazanavir / Ritonavir 300/100 daily 5 days. Every vitamin c vial content of 500 mg and is from Darou Paksh factory. The patients receive 3 vials slow infusion (1-2 hours) with normalsaline. Duration of treatment base of clinical response is 3-5 days. Renal function with BUN and CR monitor every other day.

#### Category

Treatment - Drugs

### 2

#### Description

Control group: control group 55 patients treat with Hydroxychloroquine 400 mg in the first day and then 200 mg BID plus Atazanavir / Ritonavir 300/100 daily 5 days.

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Imam khomeini hospital

##### Full name of responsible person

Fereshteh Ghasvand

##### Street address

Keshavarz Blvd

##### City

تهران

##### Province

Tehran

##### Postal code

1419733141

##### Phone

+98 21 6119 2811

##### Email

ghiasvand\_62@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Tehran University of Medical Sciences

##### Full name of responsible person

Fatemeh Saidi

##### Street address

Keshavarz Blvd

##### City

Tehran

##### Province

Tehran

##### Postal code

1419733141

##### Phone

+98 21 8163 3618

##### Email

ghiasvand\_62@yahoo.com

##### Grant name

##### Grant code / Reference number

47277

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

No

##### Title of funding source

Research Assistant of Tehran 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

Tehran University of Medical Sciences

##### Full name of responsible person

Fereshteh Ghasvand

##### Position

Assistant Professor of Infectious diseases

##### Latest degree

Specialist

##### Other areas of specialty/work

Infectious diseases

##### Street address

Keshavarz Blvd

##### City

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##### Province

Tehran

##### Postal code

1419733141

##### Phone

009861192811

##### Email

ghiasvand\_62@yahoo.com

## Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

Tehran University of Medical Sciences

**Full name of responsible person**

Fereshteh Ghiasvand

**Position**

Assistant professor of Infectious Diseases

**Latest degree**

Specialist

**Other areas of specialty/work**

Infectious diseases

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**Email**

dr.besharat70@yahoo.com

**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 more information

**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

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

Tehran University of Medical Sciences

**Full name of responsible person**

Besharat Zarezade

**Position**

Resident of infectious diseases

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Infectious diseases

**Street address**