

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Sep 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 gathered in questionnaire and then analysis with SPSS version 22.

Settings and conduct

The corona ward in Imam Khomeini Hospital, Tehran, 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

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

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**

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

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Fatemeh Saidi

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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

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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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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