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 admition evaluate in two groups. The data gathere 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
Interavenous 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)

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+98 21 6119 2811

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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 withG6PD 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 Pakhsh 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
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
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Position
Assistant Professor of Infectious diseases
Latest degree
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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