

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

effect of Interferon-beta1(zifron) on clinical improvement and prognosis of COVID-19 in Tabriz Imam-Reza hospital

Protocol summary

Study aim

Evaluation of the effect of Betafron on reducing and preventing the progression of respiratory failure as well as organs failure and death of COVID-19 disease.

Design

Clinical trial with parallel control group , randomisation by balanced block method, phase 2 on 60 COVID-19 patients

Settings and conduct

60 COVID-19 patients admitted to Tabriz Imam Reza Hospital will be divided in 2 groups: treatment and control. In randomization by balanced block method, first,we will define quadruple blocks with group (A) and (B) arrangements, then we will select each of the blocks using the table of random numbers, and prepare 4 patients in the arrangement of (A) and (B) group in the selected block enrolled to the study. We will Continue this process to complete patients..Both groups will be treated by Hydroxychloroquine and Kaletra. In 30 intervention group patients , interferon beta 1 (zifron) 250 micrograms subcutaneously every other day for up to 5 doses will be added, but not in other 30 control group patients. Oxygenation, need for mechanical ventilation,and mortality will be monitored. Outcome, considering improvement in respiratory failure, need for mechanical ventilation, and in hospital mortality will be compared in 2 groups.

Participants/Inclusion and exclusion criteria

inclusion criteria: 1. Respiratory rate more than 24 per minute 2. Pao2 / FIO2 less than 300 exclusion criteria: 1. Pregnancy 2. History of allergy to interferon-beta 1 compounds (zifron) 3. History of advanced liver disease and liver enzymes three times normal 4. History of severe depression with suicidal thoughts

Intervention groups

30 patients in intervention group will be treated with antivirals and interferon beta1. And control group will be treated only with antivirals.

Main outcome variables

Arterial oxygen saturation P / F ratio mechanical ventilation mortality

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200406046968N3**

Registration date: **2020-05-08, 1399/02/19**

Registration timing: **registered_while_recruiting**

Last update: **2020-05-08, 1399/02/19**

Update count: **0**

Registration date

2020-05-08, 1399/02/19

Registrant information

Name

Haleh Mikaeili

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 41 3329 6024

Email address

halehmikaeili@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-04-29, 1399/02/10

Expected recruitment end date

2020-06-30, 1399/04/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

effect of Interfron-beta1(zifron) on clinical improvement and prognosis of COVID-19 in Tabriz Imam-Reza hospital

Public title

effect of Interfron-beta1(zifron) on clinical improvement and prognosis of COVID-19 in Tabriz Imam-Reza hospital

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

respiratory rate > 24 / min pao₂ / Fio₂ < 300

Exclusion criteria:

Pregnancy history of Sensitivity to interferon-beta 1 compounds (zifron) History of advanced liver disease and liver enzymes three times normal history of severe depression or suicidal thought

Age

No age limit

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: 60

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization will be done by permuted (balanced) block randomization method. At the beginning, we will define quadruple blocks with group (a) and group (b) arrangements, and then we will select each of the blocks using the table of random numbers, and after each block determination, prepare 4 patients in the arrangement of (A) and (B) group in the selected block enrolled to the study. Then 4 other patients will be selected through the other block. We will Continue this process to complete patients.

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

Regional Research Ethics Committee (Humanities Studies)

Street address

Tabriz / Golgasht St. / Tabriz University of Medical Sciences Central Building No. 2 / Third Floor Deputy of Research and Technology

City

Tabriz

Province

East Azarbaijan

Postal code

5166614766

Approval date

2020-04-13, 1399/01/25

Ethics committee reference number

IR.TBZMED.REC.1399.019

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

COVID-19 disease

ICD-10 code

U07.2

ICD-10 code description

COVID-19, virus not identified

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

oxygenation

Timepoint

daily

Method of measurement

pulse oximetry

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

P/F ratio

Timepoint

daily

Method of measurement

ABG

2**Description**

need for mechanical ventilation

Timepoint

daily

Method of measurement

file

3**Description**

in hospital mortality

Timepoint

daily

Method of measurement

file

Intervention groups**1****Description**

Intervention group: 30 COVID-19 patients with inclusion criteria will be treated with 250 micro grams of betafron (Zifron Zist Darou Danesh) Subcutaneously every other day up to 10 days or 5 dosages in addition to antivirals including hydroxychloroquine 400 mg,bid stat. and Kaletra 2 tablet bid for 10 days.

Category

Treatment - Drugs

2**Description**

Control group: 30 COVID-19 patients will be treated only with antivirals including hydroxychloroquine 400 mg,bid stat and Kaletra 2 tablet bid for 10 days.

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Imam Reza Hospital

Full name of responsible person

Mikaeili Haleh

Street address

University Street in front of the Central Organization of Tabriz University of Medical Sciences

City

Tabriz

Province

East Azarbaijan

Postal code

5166614756

Phone

+98 41 3334 7059

Email

info@imamreza.tbzmed.ac.ir

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Zist Daru Danesh Company

Full name of responsible person

Hooshmand Ilka

Street address

No. 33, First Floor, Corner of Siboyeh St., Ibn Yamin St., North Sohrevardi St.

City

Tehran

Province

Tehran

Postal code

1555633114

Phone

+98 21 4231 8100

Email

info@zistdaru.ir

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Zist Daru Danesh Company

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Other

Person responsible for general inquiries**Contact****Name of organization / entity**

Tabriz University of Medical Sciences

Full name of responsible person

Mikaeili Haleh

Position

Associate Professor

Latest degree

Subspecialist

Other areas of specialty/work

Internal Medicine

Street address

3rd Floor, Central Building, University Street, Tabriz, Iran

City

Tabriz

Province

East Azarbaijan

Postal code

5157679746

Phone

+98 41 3329 6024

Email

halehmikaeili@gmail.com

Person responsible for scientific inquiries**Contact**

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Mikaeili Haleh

Position

Associate professor

Latest degree

Subspecialist

Other areas of specialty/work

Internal Medicine

Street address

3rd Floor, Central Building, University Street, Tabriz,
Iran

City

Tabriz

Province

East Azarbaijan

Postal code

5157679746

Phone

+98 41 3329 6024

Email

halehmikaeili@gmail.com

Province

East Azarbaijan

Postal code

5157679746

Phone

+98 41 3329 6024

Email

halehmikaeili@gmail.com

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 related to the study of the effect of interferon-beta 1 (zifron) on clinical improvement and prognosis of patients with COVID-19 will be shared in Imam Reza (AS) Hospital in Tabriz.

When the data will become available and for how long

Since the summer of 1399

To whom data/document is available

Researchers and all treatment staff

Under which criteria data/document could be used

For treatment

From where data/document is obtainable

Dr. Mikaeili haleh

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

After finishing the work and getting the result

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

Tabriz University of Medical Sciences

Full name of responsible person

Mikaeili haleh

Position

Associate professor

Latest degree

Subspecialist

Other areas of specialty/work

Internal Medicine

Street address

3rd Floor, Central Building, University Street, Tabriz,
Iran

City

Tabriz