

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Jun 2026

Investigating the effectiveness of MMR vaccination The rate of COVID19 in medical staff compared to the control group

Protocol summary

Study aim

Evaluation of the protective effects of MMR vaccine against coronavirus

Design

Clinical trial, parallel groups, randomized, phase 3 on 323 patients

Settings and conduct

The medical and health staff working in Ahvaz will be invited to participate in the study And will enter the study according to the entry and exit criteria and after obtaining informed consent. According to the randomized table, it is divided into two groups and one group is injected with MMR vaccine and the other group does not receive vaccine. Then, the subjects will be followed up according to the national protocols of COVID-19 and the necessary follow-ups and Covid test -19 will be performed.

Participants/Inclusion and exclusion criteria

Inclusion criteria included health care personnel aged 25-65 years, male or female, who are in contact with patients with SARS CoV-2 infection And sign and date the informed consent form. Exclusion criteria included health care personnel with fever, respiratory infection, pregnant women, taking immunosuppressive drugs such as corticosteroids or any serious underlying disease such as malignancy, receiving a live vaccine, or testing positive for COVID-19.

Intervention groups

MMR vaccine injection to the study group

Main outcome variables

Comparison of the incidence of Covid-19 disease in the vaccinated group with the non-vaccinated group

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200802048266N1**

Registration date: **2020-09-22, 1399/07/01**

Registration timing: **prospective**

Last update: **2020-09-22, 1399/07/01**

Update count: **0**

Registration date

2020-09-22, 1399/07/01

Registrant information

Name

souri heidari

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 61 3336 0289

Email address

sourihedari@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-11-19, 1399/08/29

Expected recruitment end date

2021-01-18, 1399/10/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effectiveness of MMR vaccination The rate of COVID19 in medical staff compared to the control group

Public title

The effect of MMR vaccine in preventing Covid disease

19

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Ahvaz health personnel with the age of 25-65 years

Exclusion criteria:

People with defective immune systems MMR vaccine susceptibility Taking immunosuppressive drugs such as corticosteroids Pregnant women People who are not allowed to get the MMR vaccine People who have active cancer and are receiving chemotherapy or radiotherapy. People who have had an organ transplant and are receiving immunosuppressive drugs. People with active HIV infection .

Age

From **25 years** old to **65 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **323**

Randomization (investigator's opinion)

Randomized

Randomization description

In this study, block randomization is used and the size of the blocks is randomly selected (for example, blocks of 8, 6, or 10 that contain an equal number of each group in each block). So that the number of samples assigned to each of the study groups is equal. In this method, the blocks are determined based on the personal characteristics of the staff of Ahwaz Health Centers in the face of Covid 19. Within each block, half of the individuals are considered as intervention groups and half as controls. The main goal of this method is to balance the number of participants in each group. In the intervention group, the MMR vaccine will be given to prevent COVID-19 complications, but in the control group, the vaccine will not be used.

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 Ahwaz Jundipur University of

Medical Sciences

Street address

golastan

City

Ahvaz

Province

Khouzestan

Postal code

6135715794

Approval date

2020-07-25, 1399/05/04

Ethics committee reference number

IR.AJUMS.REC.1399.361

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

Weight

Timepoint

The beginning of the study

Method of measurement

kilograms

2

Description

WBC

Timepoint

At the beginning and end of the study

Method of measurement

Flow cytometry

3

Description

Lymphocyte count / percentage in CBC

Timepoint

At the beginning and end of the study

Method of measurement

Flow cytometry

4

Description

Anti measles antibody titer

Timepoint

At the beginning and end of the study

Method of measurement

Eliza test

5

Description

Anti rubella antibody titer

Timepoint

At the beginning and end of the study

Method of measurement

Eliza test

6

Description

Anti mumps antibody titer

Timepoint

At the beginning and end of the study

Method of measurement

Eliza test

7

Description

Anti SARS-CoV-2 IgG & IgM

Timepoint

At the beginning and end of the study

Method of measurement

Eliza test

8

Description

PCR test

Timepoint

At the beginning and end of the study

Method of measurement

RT-PCR test using nasopharyngeal swabs

9

Description

Reduce the need for intubation

Timepoint

At the beginning and end of the study

Method of measurement

View

10

Description

Mortality rate

Timepoint

At the beginning and end of the study

Method of measurement

View

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Health workers exposed to the

epidemic virus (COVID-19) who were randomly selected after registering personal information including name, gender, age, weight, place of residence, occupation, presence of underlying diseases And disease characteristics were randomly divided into one of two experimental and control groups based on AB and BA random block design. Is placed If their antibody level is not safe for measles, mumps or rubella, the vaccine will be injected. It is injected according to the protocol of the Ministry of Health. External substance prescribed: MMR vaccine - Participants in the intervention group will receive a dose of MMR vaccine at the rate of 0.5 cc by subcutaneous method (SC) Then, in three periods of two, six and twelve months, the results of the desired indicators are collected. In addition, all subjects in both groups will be routinely searched for signs and symptoms associated with acute respiratory infection / Covid-19. Also, at baseline and 12 months later, serum interferon gamma levels and antibody titers against measles, rubella, and mumps, and if available, IgG and IgM antibody titers against SARS-CoV-2 swabs for PCR measurement. Is taken

Category

Prevention

2

Description

Control group: Health workers exposed to the epidemic virus (COVID-19) who were randomly selected after registering personal information including name, gender, age, weight, place of residence, occupation, presence of underlying diseases And disease characteristics were randomly divided into one of two experimental and control groups based on AB and BA random block design. Is placed. In this group, the vaccine is not injected to evaluate the efficacy of MMR vaccine in the intervention group. Then, in three periods of two, six and twelve months, the results of the desired indicators are collected. In addition, all subjects in both groups will be routinely searched for signs and symptoms associated with acute respiratory infection / Covid-19. Also, at baseline and 12 months later, serum interferon gamma levels and antibody titers against measles, rubella, and mumps, and if available, IgG and IgM antibody titers against SARS-CoV-2 swabs for PCR measurement. Is taken

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Ahwaz Jundishapur University of Medical Sciences

Full name of responsible person

Souri Heidari

Street address

Moshfag

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Postal code
6134753579
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ahvaz University of Medical Sciences
Full name of responsible person
Muhammad Badavi
Street address
Ahvaz University City-Deputy of research and
technology Ahwaz Jundishapur University of Medical
Sciences and Health Services
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Postal code
15794 - 61357
Phone
+98 61 3336 2414
Email
litc@ajums.ac.ir
Grant name
Grant code / Reference number
**Is the source of funding the same sponsor
organization/entity?**
Yes
Title of funding source
Ahvaz 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
Ahvaz University of Medical Sciences
Full name of responsible person
Souri Heidari
Position
Employee
Latest degree

Master
Other areas of specialty/work
Microbiology
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Person responsible for updating data

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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

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