

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Bioequivalence study of Omeprazole 20mg capsules manufactured by Sina Pishgam Darou Novin pharmaceutical company on 24 healthy volunteers and comparing pharmacokinetics results with Omprazole capsules manufactured by Hexal

#### Protocol summary

##### Study aim

Comparing pharmacokinetics parameters of Sina Pishgam Darou Novin Omeprazole 20mg capsules and Omeprazole 20mg of HEXAL company.

##### Design

Bioequivalence study consists of one 24 healthy volunteers group. This group itself randomly divided to two 12 volunteers sub-groups. The first sub-group administered reference drug and the second sub-groups administered generic or test drugs. The bioequivalence study is performed as cross over double blind within 1-2 weeks.

##### Settings and conduct

Bioequivalence Omeprazole 20mg study will be performed under physician since 7 AM until 5 PM. This study is carried out as a cross over double blind investigation. The blind person included volunteers, administrator and analyst.

##### Participants/Inclusion and exclusion criteria

Acceptance criteria: Healthy liver and kidney and observing BMI limits Rejection criteria: Smokers and pregnancy

##### Intervention groups

Intervention group consist Measuring maximum plasma concentration and Tmax concentration. Control group include the volunteers administered reference drugs and Measuring maximum plasma concentration and Tmax concentration.

##### Main outcome variables

Most important outcome is plasma concentration versus time profile. Pharmacokinetics parameters are calculated using this profile and included Cmax, Tmax, AUC0-t, AUC0-inf

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200513047423N2**

Registration date: **2021-10-07, 1400/07/15**

Registration timing: **prospective**

Last update: **2021-10-07, 1400/07/15**

Update count: **0**

##### Registration date

2021-10-07, 1400/07/15

##### Registrant information

##### Name

Amir Mehdizadeh

##### Name of organization / entity

Ofogh pajo

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 6673 8727

##### Email address

ofoghfarmed.lab@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2021-10-08, 1400/07/16

##### Expected recruitment end date

2021-10-29, 1400/08/07

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

## Scientific title

Bioequivalence study of Omeprazole 20mg capsules manufactured by Sina Pishgam Darou Novin pharmaceutical company on 24 healthy volunteers and comparing pharmacokinetics results with Omeprazole capsules manufactured by Hexal

## Public title

Bioequivalence study of Omeprazole 20mg

## Purpose

Other

## Inclusion/Exclusion criteria

### Inclusion criteria:

Healthy liver Healthy kidney Observing BMI

### Exclusion criteria:

Out of age ranges No smoker Unhealthy liver and kidney Pregnancy

## Age

From **18 years** old to **50 years** old

## Gender

Both

## Phase

Bioequivalence

## Groups that have been masked

*No information*

## Sample size

Target sample size: **24**

More than 1 sample in each individual

Number of samples in each individual: **1**

Each volunteer has been administered once reference drug and the next time test drugs

## Randomization (investigator's opinion)

Randomized

## Randomization description

We designate to 24 healthy volunteers one number between 1 and 24. Extraction of 12 numbers is carried out using random number table available in internet. These first 12 numbers establish first group.

## Blinding (investigator's opinion)

Double blinded

## Blinding description

The main investigator creates a table using randomization and divides 24 healthy volunteer in 2 groups which only he knows the details of group. Test and reference drugs are packaged in special envelopes that administrator and volunteers are blinded regarding to the kind of drugs. Volunteers, administrator (health care professional) and analyst are blinded regarding to reference and test drugs.

## Placebo

Not used

## Assignment

Crossover

## Other design features

## Secondary Ids

empty

## Ethics committees

## 1

### Ethics committee

#### Name of ethics committee

Ethics committee of school and Nursing & midwifery-shahid beheshti university of medicine

#### Street address

No.65, Razi Ave, Enghelab Ave

#### City

Tehran

#### Province

Tehran

#### Postal code

1133713144

### Approval date

2021-09-19, 1400/06/28

### Ethics committee reference number

IR.SBMU.RETECH.REC.1400.409

## Health conditions studied

## 1

### Description of health condition studied

Bioequivalence Omeprazole 20mg

### ICD-10 code

### ICD-10 code description

## Primary outcomes

## 1

### Description

Increasing plasma concentration after administration of Omeprazole capsules till Tmax and then decreasing plasma concentration after Tmax

### Timepoint

Initial blood sampling is performed before drug administration to obtain blank plasma chromatogram of each healthy volunteers. Hence the Tmax of Omeprazole is between 1.5 and 2 hours, so it is needed to have 5 blood samplings before Tmax. This period of time is called absorption phase.

### Method of measurement

In this study, the variable is plasma concentration of Omeprazole. High performance liquid chromatography is used to determine the concentration of Omeprazole in plasma.

## Secondary outcomes

empty

## Intervention groups

## 1

### Description

Intervention group: One Omeprazole capsule 20mg manufactured by Sina Pishgam Darou Novin (Test drug) is administered to each of 12 healthy volunteers of group 1.

**Category**

Treatment - Drugs

**2****Description**

Intervention group: One Omeprazole 20mg capsule manufactured by HEXAL company is administered to each of 12 healthy volunteers of group 2.

**Category**

Treatment - Drugs

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

Ofoq pharmed

**Full name of responsible person**

Dr Amir mehdizadeh

**Street address**

No.65, Razi Ave, Enghelab Ave

**City**

Tehran

**Province**

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**Postal code**

1133713144

**Phone**

+98 21 6673 8727

**Email**

a\_mehdizadeh@gmail.com

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

Sina Pishgam Darou Novin

**Full name of responsible person**

Dr naser Arab

**Street address**

No.28, 4th Alley, North kargar Ave, Tehran

**City**

Tehran

**Province**

Tehran

**Postal code**

1413694163

**Phone**

+98 21 8863 0175

**Email**

info@sinapishgamdarou.com

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

No

**Title of funding source**

Sina Pishgam Darou Novin

**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**

Industry

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

Ofoq pharmed laboratory

**Full name of responsible person**

Dr Amir mehdizadeh

**Position**

Responsible pharmacist

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Medical Pharmacy

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

Shahid Beheshti University of Medical Sciences

**Full name of responsible person**

Dr Farzad kobarfard

**Position**

Professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Medical Pharmacy

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

Ofohgh pharmed

**Full name of responsible person**

Amir Mehdizadeh

**Position**

Responsible pharmacist

**Latest degree**

Ph.D.

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Medical Pharmacy

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**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**

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

**Title and more details about the data/document**

Demography tables of volunteers including group 1 and 2 have been shared in bioequivalence report.

**When the data will become available and for how long**

The results of bioequivalence study of Omeprazole capsules will be shared after accepting by Iranian food and drug organization.

**To whom data/document is available**

The results of bioequivalence study of Omeprazole capsules will be shared by expert by Iranian food and drug organization and financial supporter.

**Under which criteria data/document could be used**

To promotion of result of investigation, the results will be shared with eager.

**From where data/document is obtainable**

1-Iranian food and drug organization, 2-Ofohgh pharmed laboratory

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

To complete of educational filed of eager to result of investigation.

**Comments**