

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

04 Jun 2026

### The effect of vaginal probiotic capsule on fertility in women with recurrent implantation failure: Clinical Trial

#### Protocol summary

##### Study aim

Determining the effect of using vaginal probiotic capsules on fertility in women with recurrent implantation failure (RIF)

##### Design

Written and informed consent will be obtained from people with RIF who are our target population in this project (200 people in each group). This product will be used vaginally three months before embryo transfer twice a day.

##### Settings and conduct

The study will be conducted in Valiasr International Hospital, Tabriz. Study subjects will receive probiotic pills according to the protocol. Pregnancy and clinical pregnancy rate will be evaluated. Finally, the number of babies born to affected individuals will be evaluated and compared with the control group that did not receive any treatment.

##### Participants/Inclusion and exclusion criteria

Patients from East Azerbaijan Having at least three implantation failures after IVF/ICSI Having primary infertility The thickness of the endometrium on the day of ovulation induction with HCG should be less than 6 mm Having regular menstrual cycles BMI under 30 Do not have any type of immunotherapy in their medical history.

##### Intervention groups

Subjects will receive probiotic tablets (Provage vaginal probiotic capsule (Gostareh Milad Pharmed Co)) according to the protocol. The ingredients (per one capsule (500 mg)) include Lactobacillus Gasseri 1\*0.5 Billion CFU < Lactobacillus Rhamnosus 1\*0.5 Billion CFU < Maltodextrin 100 mg. This product will be used three months before embryo transfer twice a day to restore and maintain the health of the vaginal flora by improving its pH level.

##### Main outcome variables

1- Pregnancy rate by serum  $\beta$ -hCG protein measurement and based on the gestational sac view and ultrasound at

6 or 7 weeks of pregnancy. 2- The number of babies born by the affected patients in compared with the control group that received no treatment.

#### General information

##### Reason for update

##### Acronym

RIF

##### IRCT registration information

IRCT registration number: **IRCT20160422027520N21**

Registration date: **2023-01-24, 1401/11/04**

Registration timing: **prospective**

Last update: **2023-01-24, 1401/11/04**

Update count: **0**

##### Registration date

2023-01-24, 1401/11/04

##### Registrant information

##### Name

Mehdi Yousefi

##### Name of organization / entity

Department of Immunology, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

##### Country

Iran (Islamic Republic of)

##### Phone

+98 41 3336 4665

##### Email address

yousefime@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-02-19, 1401/11/30

##### Expected recruitment end date

2024-02-19, 1402/11/30

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

The effect of vaginal probiotic capsule on fertility in women with recurrent implantation failure: Clinical Trial

**Public title**

The effect of vaginal probiotic capsule on fertility in women

**Purpose**

Treatment

**Inclusion/Exclusion criteria****Inclusion criteria:**

Patients from East Azerbaijan Having at least three implantation failures after IVF/ICSI Having primary infertility The thickness of the endometrium on the day of ovulation induction with HCG should be less than 6 mm Having regular menstrual cycles BMI under 30 Do not have any type of immunotherapy in their medical history.

**Exclusion criteria:**

Patients under 18 years old and over 41 years old Having polycystic ovarian syndrome Poor ovarian reserve Having chromosomal abnormalities Positive HIV, HCV or HBV tests Patients with intrauterine anomalies. Patients with coagulation problems.

**Age**

From **18 years** old to **40 years** old

**Gender**

Female

**Phase**

2

**Groups that have been masked**

- Participant
- Data analyser

**Sample size**

Target sample size: **200**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

At first, the sample size of 200 patients with RIF that met our inclusion criteria was considered as the total sample size. 'Random allocation rule' method was used for randomization, where numbers were randomly assigned to cards on a random order of one to 200. Even numbers were assigned to the treatment group and odd numbers to the control group (who did not receive any treatment). In this method, the balance will be reached at the end of the study in the number of people assigned to each group. Each card was placed in sealed and opaque envelopes to hide the random assignment.

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

The participants and the person who analyzed the results were blinded in this study. Participants were aware of the

study before being randomized and informed consent was obtained from them. It should be noted that the person analyzing the results had no other role in this study.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of Tabriz University of Medical Sciences

**Street address**

Tabriz University of Medical Sciences , Daneshgah st, Tabriz,

**City**

Tabriz

**Province**

East Azarbaijan

**Postal code**

6446-14155

**Approval date**

2022-12-05, 1401/09/14

**Ethics committee reference number**

IR.TBZMED.REC.1401.799

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

Recurrent implantation failure

**ICD-10 code**

N98.9

**ICD-10 code description**

Complication associated with artificial fertilization, unspecified

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

Pregnancy rate

**Timepoint**

After positive beta-hCG test, clinical pregnancy was evaluated at 5-6 week

**Method of measurement**

Examining the formation of gestational sac using Sonography method

## 2

### Description

Live birth rate

### Timepoint

9 months

### Method of measurement

People with positive  $\beta$ -hCG test after treatment will be continuously monitored with the help of gynecologists. After about 9 months, we will evaluate the number of babies born.

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Vaginal probiotic capsule (Three months before embryo transfer, two tablets a day vaginally). Provenge vaginal probiotic capsule (Gostareh Milad Pharmed Co) The ingredients (per one capsule (500 mg)) include Lactobacillus Gasseri 1\*0.5 Billion CFU < Lactobacillus Rhamnosus 1\*0.5 Billion CFU < Maltodextrin 100 mg.

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Infertility center at Valiasr Hospital

##### Full name of responsible person

Dr. Mehdi Yousefi

##### Street address

Infertility center at Valiasr Hospital, Aflak-nama Sq, Zaferaniyeh Ave, Tabriz

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##### Postal code

6446-14155

##### Phone

+98 41 3327 3000

##### Email

mehdi\_yusefi@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Full name of responsible person

Mehdi Yousefi

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#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor organization/entity?

Yes

#### Title of funding source

Tabriz 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

Tabriz University of Medical Sciences

##### Full name of responsible person

Mehdi Yousefi

##### Position

PhD in Medical Immunology, Associate Professor

##### Latest degree

Ph.D.

##### Other areas of specialty/work

Immunology

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## Person responsible for scientific inquiries

### Contact

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**Full name of responsible person**

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**Position**

PhD in Immunology- Associate professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

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## Person responsible for updating data

### Contact

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Tabriz University of Medical Sciences

**Full name of responsible person**

Sanam Dolati

**Position**

Assistant Professor of Immunology

**Latest degree**

Ph.D.

**Other areas of specialty/work**

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**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