Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Effect of preoperative erytropoetin and Ferinject injection on transfusion rate after adult cardiac surgery and comparing it with patients without erythropoietin and erythropoietin injection.

Protocol summary

Study aim
Effect of preoperative erytropoetin and Ferinject injection on transfusion rate after cardiac surgery

Design
Clinical trial with a control group, with parallel groups, double-blind, randomized, phase 2 on 100 patients. The Excel software was used for randomization.

Settings and conduct
In Modarres Hospital in tehran These patients are divided into two groups of 100 men and women. Anemia is considered to be less than 12 in women and less than 13 in men. and erythropoietin 5 _7 days before surgery, in hemoglobin less than 12 It is prescribed for female patients and less than 13 for men.And they are compared with 100 patients without erythropoietin injection and fringect in terms of the amount of blood injection.

Participants/Inclusion and exclusion criteria
Not allergic to iron tablets.liver disease .pediatric.iron overload

Intervention groups
Adults who undergo open heart surgery and receive intravenous iron, and control patients only receive blood transfusions in case of anemia.

Main outcome variables
Less blood consumption in heart surgery patients.

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20221021056256N1**
Registration date: **2022-11-26, 1401/09/05**
Registration timing: **registered_while_recruiting**

Last update: **2022-11-26, 1401/09/05**
Update count: **0**

Registration date
2022-11-26, 1401/09/05

Registrant information

Name
Alireza Omidi farzin

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 912 549 9128

Email address
alirezaomidi661818@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-11-22, 1401/09/01

Expected recruitment end date
2023-03-21, 1402/01/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effect of preoperative erytropoetin and Ferinject injection on transfusion rate after adult cardiac surgery and comparing it with patients without erythropoietin and erythropoietin injection.

Public title
Effect of erytropoetin and Ferinject on transfusion

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

These patients are divided into two groups, male and female. In the female group, hemoglobin is less than 12 and in the male group, hemoglobin is less than 13 is considered anemia.

Exclusion criteria:

History of allergy to iron. liver disease evidence of iron overload pediatrics

Age

From **20 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization

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 shahid Beheshty university of medical science

Street address

Modarres Hospital, Sadat abad Ave, Tehran

City

Tehran

Province

Tehran

Postal code

1393845861

Approval date

2022-06-05, 1401/03/15

Ethics committee reference number

IR.SBMU.RETECH.REC.1401.459

Health conditions studied

1

Description of health condition studied

Blood transfusion in heart surgery.

ICD-10 code

D50

ICD-10 code description

Iron deficiency anemia

Primary outcomes

1

Description

Frequency of blood transfusions.

Timepoint

5_7 day before surgery

Method of measurement

pack cell

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: injection of erytropoetin and ferinject

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Modarres Hospital

Full name of responsible person

Dr Ramin Baghaei Tehrani

Street address

Modarres Hospital, Sadat abad Ave, Tehran

City

Tehran

Province

Tehran

Postal code

13938458587

Phone

+98 21 2207 4090

Email

alirezaomidi661818@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The Shahid Beheshty University

Full name of responsible person
Dr Ramin Baghaei Tehrani
Street address
Modarres Hospital, Saadat abad Ave, Tehran
City
Tehran
Province
Tehran
Postal code
1393845861
Phone
+98 21 2207 4090
Email
alirezaomidi661818@gmail.com

Grant name

Grant code / Reference number

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

Title of funding source
The Shahid Beheshty University

Proportion provided by this source
10

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
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Dr Ramin Baghaei Tehrani
Position
Associate professor
Latest degree
Subspecialist
Other areas of specialty/work
Cardiology
Street address
Modarres hospital, Sadat abad Ave , Tehran
City
Tehran
Province
Tehran
Postal code
1393845861
Phone
+98 21 2207 4090
Email
alirezaomidi661818@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Dr Ramin Baghaei Tehrani
Position
associate professor
Latest degree
Subspecialist
Other areas of specialty/work
Cardiology
Street address
Modarres hospital, Sadat abad Ave, Tehran
City
Tehran
Province
Tehran
Postal code
1393845861
Phone
+98 21 2207 4090
Email
alirezaomidi661818@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Dr Ramin Baghaei Tehrani
Position
Associate professor
Latest degree
Subspecialist
Other areas of specialty/work
Cardiology
Street address
Modarres hospital, Sadat abad Ave, Tehran
City
Tehran
Province
Tehran
Postal code
1393845861
Phone
+98 21 2207 4090
Email
alirezaomidi661818@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

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Part of the data, such as the main result, can be published.

When the data will become available and for how long

6 mouth after publish

To whom data/document is available

for all

Under which criteria data/document could be used

for all is avaiable

From where data/document is obtainable

journal of published

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

1 month from the time of application

Comments