

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### The effect of blood glucose control with insulin on hyperglycemia during and after coronary artery bypass grafting surgery in non-diabetic patients.

#### Protocol summary

##### Summary

Evidence reveals high incidence of hyperglycemia in NON\_DIABETICS undergoing major operations such as cardiac surgery. The aim of this study is to evaluate the effect of INTRA-OPERATIVE glycemic control to preventing hyperglycemia DURING and AFTER cardiac surgery. Sixty adult non-diabetic patients who undergoing elective coronary artery bypass grafting surgery randomly divided to 2 groups(each group n=30). First group received insulin infusion during operation according to a established protocol to maintain blood glucose within 110-140 mg/dl. Blood glucose(BG) of patients of second (control) group only monitored every 30 min (such as First group) and received bolus insulin only when BG> 250 mg/dl. All patients' BG measured in every 2 hours after operation until 24h, and every 6h until discharge from ICU. Also postoperative complications recorded.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT138705291049N1**  
Registration date: **2008-09-27, 1387/07/06**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2008-09-27, 1387/07/06

##### Registrant information

##### Name

Rasoul Azarfarin

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

3357310 411 +98

##### Email address

azarfarinr@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Tabriz University of Medical Sciences

##### Expected recruitment start date

2008-06-21, 1387/04/01

##### Expected recruitment end date

2009-06-20, 1388/03/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of blood glucose control with insulin on hyperglycemia during and after coronary artery bypass grafting surgery in non-diabetic patients.

##### Public title

Blood glucose control with insulin in non-diabetic patients undergoing cardiac operation.

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: Elective coronary artery bypass grafting surgery, American anesthesiologists Association (ASA) physical status class I and II exclusion criteria : Patients refuse to participate into study, Diabetes mellitus, Taking drugs that affect on blood glucose, Pre-operative unstable hemodynamic or taking inotrop

drugs, unexpected event during operation.

#### Age

From **18 years** old to **79 years** old

#### Gender

Both

#### Phase

3

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **60**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

#### Blinding (investigator's opinion)

Single blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Parallel

#### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Regional Ethics committee of Tabriz University of  
Medical Sciences

##### Street address

Daneshgah st.

##### City

Tabriz

##### Postal code

5166614776

#### Approval date

2008-06-19, 1387/03/30

#### Ethics committee reference number

872

## Health conditions studied

### 1

#### Description of health condition studied

Hyperglycemia in patients undergoing cardiac surgery

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Hyperglycemia

#### Timepoint

During and early post-operative period

#### Method of measurement

Blood glucose measurement

## Secondary outcomes

### 1

#### Description

Post-operative complications (neurologic, infectious, ...)

#### Timepoint

post-operative period

#### Method of measurement

Clinical examination

## Intervention groups

### 1

#### Description

Insulin infusion/no insulin infusion

#### Category

*empty*

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Madani Heart Hospital

##### Full name of responsible person

##### Street address

Daneshgah st.

##### City

Tabriz

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Full name of responsible person

Abdol-hassan Kazemi

##### Street address

Daneshgah st.

##### City

Tabriz

#### 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

*empty*  
**Domestic or foreign origin**  
*empty*  
**Category of foreign source of funding**  
*empty*  
**Country of origin**  
**Type of organization providing the funding**  
*empty*

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
Tabriz University of Medical Sciences  
**Full name of responsible person**  
Rasoul Azarfarin  
**Position**  
Associate professor in anesthesiology  
**Other areas of specialty/work**  
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azarfarinr@tbzmed.ac.ir  
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## Person responsible for scientific inquiries

### Contact

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## Person responsible for updating data

### Contact

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azarfarinr@tbzmed.ac.ir  
**Web page address**

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**  
*empty*  
**Study Protocol**  
*empty*  
**Statistical Analysis Plan**  
*empty*  
**Informed Consent Form**  
*empty*  
**Clinical Study Report**  
*empty*  
**Analytic Code**  
*empty*  
**Data Dictionary**  
*empty*