

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

20 Jun 2026

### Comparison the Effect of Continuous and Intermittent Flushing on Maintaining Patency of the Arterial Complications after Coronary Artery Bypass Surgery

#### Protocol summary

##### Summary

This study is a randomized clinical trial with two-group that conducted on the patients who underwent CABG procedures off pump and hospitalized in intensive care unit open heart of Imam Reza hospital in Mashhad is done. The aim of this study is evaluation the efficacy of cleaning continuous and intermittent on maintaining openness and complications of arterial line. The main outcomes is time openness artery catheter, blocking the artery catheter, and incidence of complications (bleeding, hematoma) at the arterial catheter every 3 hours from the time of acceptance of the open heart ICU. Sample size is considered 30 patients in each group. In the intervention group washed artery catheter in a continuous manner using a cuff transfusion so that saline containing heparin in a pressure cuff is placed 300 mmHg and 3 ml of solution heparin infused in the catheter per hour. Catheter patency will be assessed with blood backward into the catheter and complications, including bleeding and hematoma checked every 3 hours. The result is entered in the checklist. In the control group artery catheter intermittent is flushed by a syringe 5 ml with 5 cc of saline with heparin every 3 hours. Complications of catheter and catheter patency and will be accessed similar intervention group and recorded in the checklist.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016050427741N1**

Registration date: **2016-08-09, 1395/05/19**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2016-08-09, 1395/05/19

##### Registrant information

###### Name

Sedigheh Arta

###### Name of organization / entity

Mashhad University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 32566747

###### Email address

artas1@mums.ac.ir

##### Recruitment status

###### Recruitment complete

##### Funding source

Mashhad University of Medical Sciences, Vice chancellor for research

##### Expected recruitment start date

2016-06-21, 1395/04/01

##### Expected recruitment end date

2016-08-21, 1395/05/31

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison the Effect of Continuous and Intermittent Flushing on Maintaining Patency of the Arterial Complications after Coronary Artery Bypass Surgery

##### Public title

Effect of Arterial Catheter Irrigation on the rate of Obstruction and its Complications

## Purpose

Supportive

## Inclusion/Exclusion criteria

Inclusion criteria: Have consent to participate in the study; coronary artery bypass surgery is located off pump; have artery catheter; vascular disorders do not have; have been 18-70 years old; preoperative coagulation disorders have (Pt less than 13 seconds and ptt less than 45 seconds). Exclusion criteria: Unwillingness to continue to participate in the study; The incidence of coagulation disorders and testing ptt-pt is disrupted (According to the listed criteria); artery catheter is removed for any reason.

## Age

From **18 years** old to **70 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **60**

## Randomization (investigator's opinion)

Randomized

## Randomization description

## 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 Mashhad University of Medical Sciences

##### Street address

University of Medical Sciences Mashhad, Vice chancellor for research, Ghoraiшы Building, University St, Mashhad

##### City

Mashhad

##### Postal code

##### Approval date

2016-06-18, 1395/03/29

##### Ethics committee reference number

IR.MUMS.REC.1394.1271

## Health conditions studied

### 1

#### Description of health condition studied

Obstruction and Complications of Arterial Line

#### ICD-10 code

Y61.6

#### ICD-10 code description

During aspiration, puncture and other catheterization

## Primary outcomes

### 1

#### Description

Obstruction

#### Timepoint

Every 3 hours

#### Method of measurement

Back arterial catheter aspiration and view the monitor arterial pressure curve

## Secondary outcomes

### 1

#### Description

bleeding

#### Timepoint

Every 3 hours

#### Method of measurement

Find bleeding at the insertion site

### 2

#### Description

Hematoma

#### Timepoint

Every 3 hours

#### Method of measurement

Find hematoma in the soft tissue surrounding the artery catheter

## Intervention groups

### 1

#### Description

Wash the intervention group artery catheter for continuous infusion using 3 ml per hour with heparin saline done. The control group artery catheter with a syringe 5 ml every 3 hours 5 cc of saline Heparin alternate method and catheter patency and complications similar groups in the Czech list will be recorded every 3 hours.

#### Category

Other

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

Imam Reza Hospital

**Full name of responsible person**

Seyed Reza Mazlom

**Street address**

Open Heart Department, Imam Reza Hospital, Ebne Sina St, Imam Reza Square, Mashhad

**City**

Mashhad

**Phone**

+98 51 3256 6747

**Fax****Email**

artas1@mums.ac.ir

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

Mashhad Faculty of Nursing and Midwifery

**Full name of responsible person**

Seyed Reza Mazlom

**Position**

Assistant Professor in Nursing

**Other areas of specialty/work****Street address**

Faculty of Nursing and Midwifery, Ebne Sina St, Doktora Crossroads

**City**

Mashhad

**Postal code****Phone**

+98 51 3859 1511

**Fax****Email**

Mazlomr[at]mums.ac.ir

**Web page address****Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

University of Medical Sciences Mashhad, Vice chancellor for research

**Full name of responsible person**

Mohsen Tafaghodi

**Street address**

University of Medical Sciences Mashhad, Vice chancellor for research, Ghoraishy Building, University St

**City**

Mashhad

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

Yes

**Title of funding source**

University of Medical Sciences Mashhad, Vice chancellor for research

**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**

Mashhad Faculty of Nursing and Midwifery

**Full name of responsible person**

Sedigheh Arta

**Position**

Master of Science in Nursing

**Other areas of specialty/work****Street address**

Mashhad Faculty of Nursing and Midwifery, Ebne Sina St, Doktora Crossroads Mashhad

**City**

Mashhad

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

Mashhad Faculty of Nursing and Midwifery

**Full name of responsible person**

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**Position**

Master of Science in Nursing

**Other areas of specialty/work****Street address**

Mashhad Faculty of Nursing and Midwifery, Ebn-e Sina St, Doktora Crossroads

**City**

Mashhad

**Postal code**

9157997714

**Phone**

+98 51 3256 6747

**Fax****Email**

Artas1@mums.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*