

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison the effects of Atorvastatin and Rosuvastatin in preventing contrast induced nephropathy in myocardial infarction patients underwent primary per-cutaneous coronary intervention

#### Protocol summary

##### Summary

preventing of adverse events helps long-term prognosis of patients with STEMI. In some studies, it is shown that statins can prevent adverse events. however, its has not established significant difference between atorvastatin and rosuvastatin. So, in this study we evaluated the effects of atorvastatin and rosuvastatin in prevention of contrast induced nephropathy. In this clinical trial, of patients referred to Imam Reza and Qaem Hospitals, 200 STEMI patients underwent PPCI and have inclusion criteria were randomly assigned in two groups. In one group, oral atorvastatin with primary dose of 80mg then 40mg twice a day, in another group, rosuvastatin with primary dose of 40mg then 20mg twice a day will administer. After data collection, it will be categorized and will be analyzed.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2017101236737N1**  
Registration date: **2017-11-19, 1396/08/28**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2017-11-19, 1396/08/28

##### Registrant information

##### Name

Faeze Keihanian

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 911 292 0581

##### Email address

keihanianf941@mums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Mashhad University of Medical Sciences

##### Expected recruitment start date

2016-08-22, 1395/06/01

##### Expected recruitment end date

2017-08-23, 1396/06/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison the effects of Atorvastatin and Rosuvastatin in preventing contrast induced nephropathy in myocardial infarction patients underwent primary per-cutaneous coronary intervention

##### Public title

Comparing the effects of Atorvastatin and Rosuvastatin in preventing acute kidney injury due to contrast media

##### Purpose

Prevention

##### Inclusion/Exclusion criteria

Inclusion criteria: occurrence of first episode of ST elevation Myocardial Infarction (STEMI); performing primary per-cutaneous coronary intervention for patients. Exclusion criteria: patients under-dialysis; acute kidney injury before angiography; cardiogenic shock; consumption of drugs like N-acetyl cysteine, vitamin C, consumption of venous contrast for other cause, manitol,

diuretics, Theophylline and Dopamin in recent two weeks before PCI; having intra-aortic balloon pump; patients with previous cardiac surgery; patients who were candidate for CABG after angioplasty; patients who received G2b3a drugs during PPCI

**Age**

No age limit

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

No information

**Sample size**

Target sample size: 200

**Randomization (investigator's opinion)**

Randomized

**Randomization description****Blinding (investigator's opinion)**

Triple blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

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

empty

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

Ethical Committee of Mashhad University of Medical Sciences

**Street address**

Medical Faculty, University Complex, Azadi Square, Mashhad, Khorasan Razavi

**City**

Mashhad

**Postal code****Approval date**

2017-01-25, 1395/11/06

**Ethics committee reference number**

IR.MUMS.fm.REC.1395.90

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

Contrast Induced Nephropathy

**ICD-10 code**

Y57.5

**ICD-10 code description**

Other and unspecified drugs and medicament

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

Level of serum creatinine

**Timepoint**

24 hours after intervention and 72 hours after intervention

**Method of measurement**

mg/ deciliter

**Secondary outcomes****1****Description**

glomerular filtration rate

**Timepoint**

24hours after intervention and 72hours after intervention

**Method of measurement**

ml/min/1.73 m2

**Intervention groups****1****Description**

oral atorvastatin 80mg before PPCI then 40mg bid after PPCI

**Category**

Treatment - Drugs

**2****Description**

Rosuvastatin 40mg before PPCI then 20mg bid after PPCI

**Category**

Treatment - Drugs

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

Imam Reza Hospital

**Full name of responsible person**

Ali Eshraghi

**Street address**

Cardiovascular Department, Imam Reza Hospital, Imam Reza Square

**City**

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**2****Recruitment center****Name of recruitment center**

Ghaem Hospital

**Full name of responsible person**

Ramin Khameneh Bagheri

**Street address**

Cardiovascular Department, Qaem Hospital, Shariati Square

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**Email**

amirsoleimanih921@mums.ac.ir

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

Vice chancellor for research, Mashhad University of Medical Sciences

**Full name of responsible person**

Mohsen Tafaghodi

**Street address**

Vice chancellor for research, Mashhad University of Medical Sciences, Beside Huveizeh Cinema, Daneshgah Street, Mashhad

**City**

Mashhad

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

Yes

**Title of funding source**

Vice chancellor for research, Mashhad 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**

Mashhad University of Medical Sciences

**Full name of responsible person**

Hasan Amirsoleimani

**Position**

Cardiovascular resident

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

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**Position**

Fellowship of Intervention, Cardiovascular specialist

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**Full name of responsible person**

Faeze Keihanian

**Position**

Cardiovascular Resident

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**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*