

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

07 Jul 2026

### Evaluating the effect of N-acetyl cysteine on the Late Remodeling's Biomarkers and ecocargdiography parameters in patients following acute myocardial infarction

#### Protocol summary

##### Summary

The aim of this study was to evaluate the effect of N-acetylcystein on late remodeling biomarkers and echocardiographic findings in patients following acute myocardial infarction. This would be a prospective clinical trial conducted on 50 patients of both sexes with the diagnosis of STEMI. Those patients who became candidate of primary PCI will be included in this study. Therefore, all patients received thrombolytics would be excluded. One group of patients will be considered as control group and in the other group NAC with the dose of 100 mg/kg and then 10 mg/kg/hr for 12 hours will be administered. Remodeling biomarker (MMP-9) was measured at the arrival time and after a month. Echocardiographic evaluations will be conducted upon arrival and within a month. These findings will be compared between these two groups.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201211168698N3**  
Registration date: **2012-12-14, 1391/09/24**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2012-12-14, 1391/09/24

##### Registrant information

##### Name

Azita Hajhossein Talasaz

##### Name of organization / entity

Department of Clinical Pharmacy, Faculty of Pharmacy, Tehran University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 66954709

##### Email address

atalasaz@razi.tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Tehran University of Medical Sciences

##### Expected recruitment start date

2012-12-01, 1391/09/11

##### Expected recruitment end date

2013-11-01, 1392/08/10

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Evaluating the effect of N-acetyl cysteine on the Late Remodeling's Biomarkers and ecocargdiography parameters in patients following acute myocardial infarction

##### Public title

NAC effect on late remodeling

##### Purpose

Prevention

##### Inclusion/Exclusion criteria

Inclusion Criteria: Myocardial infarction patients who were candidate of primary PCI . Exclusion Criteria: rescue pci; emergency for cardiac bypass ; cardiogenic shock; life expactancy less than 6 months; Age less than 18 years old; Uncontrolled hypertension; Thrombocytopenia; Malformation or aneurysm; sever chronic renal failure;

Sever liver failure; sensitivity to sulfonamides ; Major surgery; Unsatisfactory to enter to study

**Age**

No age limit

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

No information

**Sample size**

Target sample size: **100**

**Randomization (investigator's opinion)**

Randomized

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

Triple blinded

**Blinding description****Placebo**

Used

**Assignment**

Parallel

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

empty

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

Tehran University of Medical Sciences

**Street address**

Tehran University of Medical Sciences

**City**

Tehran

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

2012-11-14, 1391/08/24

**Ethics committee reference number**

19189

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

Acute Myocardial Infarction

**ICD-10 code**

I21

**ICD-10 code description**

Acute Myocardial Infarction

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

Echocardiography findings of remodeling (LVEDV)

**Timepoint**

Baseline and after a month

**Method of measurement**

Echocardiography

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

Level of MMP-9

**Timepoint**

Baseline and after a month

**Method of measurement**

Serum level-Elisa kit

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

Intervention: Bolus dose of NAC 100 mg/kg then 10 mg/kg/hr for 12 hours- During the intervention NAC will be administered intracoronary

**Category**

Treatment - Drugs

**2****Description**

Control group: Receive D5W in the same volume as NAC

**Category**

Placebo

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

Tehran Heart Center

**Full name of responsible person**

Azita Hajhossein Talasaz

**Street address**

North Kargar St., Jalal Al Ahmand St.

**City**

Tehran

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Tehran University of Medical Sciences

**Full name of responsible person**

Fatemeh Saeedi

**Street address**

Research Deputy, Tehran University of Medical Sciences, Qods St., Keshavarz Blv.

**City**  
Tehran

**Grant name**

**Grant code / Reference number**

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

**Title of funding source**  
Tehran 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**  
Tehran University of Medical Sciences

**Full name of responsible person**  
Azita Hajhossein Talasaz

**Position**  
Assistant Professor, Clinical Pharmacy Specialist

**Other areas of specialty/work**

**Street address**  
School of Pharmacy, Tehran University of Medical Sciences, 16 Azar St., Enghelab St.

**City**  
Tehran

**Postal code**

**Phone**  
+98 21 6695 4709

**Fax**

**Email**  
atalasaz@razi.tums.ac.ir

**Web page address**

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
Tehran University of Medical Sciences

**Full name of responsible person**  
Azita Hajhossein Talasaz

**Position**  
Assistant Professor, Clinical Pharmacy Specialist

**Other areas of specialty/work**

**Street address**  
School of Pharmacy, Tehran University of Medical Sciences

**City**  
Tehran

**Postal code**

**Phone**  
+98 21 6695 4709

**Fax**

**Email**  
atalasaz@razi.tums.ac.ir

**Web page address**

## Person responsible for updating data

### Contact

**Name of organization / entity**  
Tehran University of Medical Sciences

**Full name of responsible person**  
Azita Hajhossein Talasaz

**Position**  
Assistant Professor, Clinical Pharmacy Specialist

**Other areas of specialty/work**

**Street address**  
#9 East Babak, Farid Afshar St., Dastgerdi St.

**City**  
Tehran

**Postal code**

**Phone**  
+98 21 2227 4767

**Fax**

**Email**

**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*