

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Comparison of prediction between TIMI (Thrombolysis in Myocardial Infarction) risk score and Modified TIMI risk score in discharged patients from emergency department with atypical chest pain

Protocol summary

Summary

In a prospective-analytic study, all patients with chief complaints of atypical chest pain aged over 25 years old will be included. Later, the emergency medicine attending will decide on hospitalizing or discharging patients based on the criteria explained in two systems (TIMI risk score and Modified TIMI risk score). Based on TIMI risk score (0 or 1) and Modified TIMI risk score (0 or 1), patients will randomly be divided into 2 equal groups. Seven criteria are evaluated in the TRS scoring; each criterion equals to one score. The criteria include: 1. Age > 65 years 2. Confirmed cardiovascular stenosis > 50% 3. Three or more associated cardiac risk factors 4. Administration of aspirin within the previous week 5. Occurrence of at least two chest pains within the past 24 hours 6. ECG changes except for STEMI 7. Increased cardiac biomarkers Using the scoring system enables us to classify the patients and evaluate the degree of risk based on which further decision on either admitting or discharging patients would be made. It should be mentioned that in the Modified TIMI Risk Score (MTRS), raised criteria are similar to the TRS approach but the scoring is between 0-10 and a score of 5 has been considered for either ECG or cardiac biomarker changes in case of being positive (with a maximum score of five for the sum of both items). TIMI and Modified TIMI risk scores were evaluated regarding the prediction of the adverse events within 30 days (all-cause death, myocardial infarction, and coronary revascularization).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201304182496N9**

Registration date: **2013-04-28, 1392/02/08**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-04-28, 1392/02/08

Registrant information

Name

Hassan Soleimanpour

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 1329 1286

Email address

soleimanpourh@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Research-Vice chancellor, Tabriz University of Medical Sciences, Iran

Expected recruitment start date

2011-06-19, 1390/03/29

Expected recruitment end date

2012-06-18, 1391/03/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of prediction between TIMI (Thrombolysis in Myocardial Infarction) risk score and Modified TIMI risk score in discharged patients from emergency department with atypical chest pain

Public title

Comparison of prediction between TIMI (Thrombolysis in Myocardial Infarction) risk score and Modified TIMI risk score in discharged patients from emergency department with atypical chest pain

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: All patients with chief complaints of atypical chest pain aged over 25 years old. Exclusion criteria: patients with the diagnosis of STEMI; patients younger than 25 years old; patients being hospitalized due to other reasons including dialysis requirements in CRF patients and myocardial contusion following chest trauma; pregnant women; imprisoned patients and unavailability of the follow-up for patients.

Age

From **25 years** old to **100 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **1000**

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

Research Vice chancellor of Tabriz University of Medical Sciences

Street address

Research Vice chancellor of Tabriz University of Medical Sciences ,Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN.

City

Tabriz

Postal code

51664

Approval date

2011-01-05, 1389/10/15

Ethics committee reference number

8966

Health conditions studied

1

Description of health condition studied

Atypical chest pain

ICD-10 code

I20.9

ICD-10 code description

Angina pectoris, unspecified

Primary outcomes

1

Description

Atypical chest pain

Timepoint

on arrival and until 12 hours following symptoms onset

Method of measurement

ECGs and cardiac enzymes

Secondary outcomes

1

Description

Adverse events

Timepoint

One month after admission in the emergency department

Method of measurement

All patients were followed up regarding the adverse events ((Myocardial Infarction (MI), revascularization and death)) and questionnaire form

Intervention groups

1

Description

Group I was evaluated using TRS and its patients were discharged in case of having low risk (0-1). All criteria used in TRS method are of equal values and each score one. These criteria include: 1. increased cardiac markers: measurements of T troponin 12 hours after the primary chest pain onset 2. Ischemic ECG: ECG registration on admission 3. Age>65 4. Continuous administration of aspirin or history of consumption within previous seven days 5. three risk factors: patients should have at least three risk factors including diabetes mellitus, hypertension, hyperlipidemia, and familial history of cardiac diseases in the close relatives before the age of 65 years and smoking history within six previous weeks 6. previously-diagnosed cardiovascular stenosis 7. severe symptoms: two or more episodes of chest pain within the previous 24 hours or pain duration of more than one hour

Category

Prevention

2

Description

Patients in group II were evaluated regarding their risk factors using MTRS method and were discharged in case of having low risk (0-1). The criteria used in MTRS system are similar to that of TRS. The only difference is scoring is between 0-10 and a score of 5 has been considered for ECG or cardiac biomarker changes (items seven and six) in case of being positive (all together or separately).

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Madani Hospital

Full name of responsible person

Dr.Hassan Soleimanpour

Street address

Emergency Medicine Department, Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN. Tabriz

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Research Vice chancellor of Tabriz University of Medical Sciences

Full name of responsible person

Dr.seyed kazem shakouri

Street address

Research Vice chancellor of Tabriz University of Medical Sciences ,Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN

City

Tabriz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Research Vice chancellor of 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

Dr.Hassan Soleimanpour

Position

Anesthesiologist/ Associate professor of Anesthesiology, MD

Other areas of specialty/work

Street address

Emergency Medicine Department, Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN. Tabriz

City

Tabriz

Postal code

51664

Phone

+98 41 1335 2078

Fax

+98 41 1335 2078

Email

h_mofid1357@yahoo.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Dr.Hassan Soleimanpour

Position

Anesthesiologist/ Associate professor of Anesthesiology, MD

Other areas of specialty/work

Street address

Emergency Medicine Department, Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN. Tabriz

City

Tabriz

Postal code

51664

Phone

+98 41 1335 2078

Fax

+98 41 1335 2078

Email

h_mofid1357@yahoo.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Dr.Hassan Soleimanpour

Position

Anesthesiologist/Associate professor of

Anesthesiology, MD

Other areas of specialty/work

Street address

Emergency Medicine Department, Tabriz University of

Medical Sciences, Daneshgah Street, Tabriz-51664,

I.R IRAN. Tabriz

City

Tabriz

Postal code

51664

Phone

+98 41 1335 2078

Fax

+98 41 1335 2078

Email

h_mofid1357@yahoo.com

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