Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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 race 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

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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

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

City
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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

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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
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Position
Anesthesiologist/ Associate professor of Anesthesiology, MD

Other areas of specialty/work

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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