

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

07 Jul 2026

### Comparison of Stroke Triage scale (Researcher) and Emergency Severity Index scale (ESI) on timing indicators and triage errors among patients with neuro sensory deficit referred to emergency department

#### Protocol summary

##### Study aim

Determination the Effect of Stroke Triage scale Scale on Timing Indicators and Triage Errors in Patients with nervous sensory impairment.

##### Design

The present study is a randomized clinical trial with parallel, one-blind, and control group, which was performed on 138 patients with neuro-sensory impairment referred to the emergency department of Ghaem Hospital. The random allocation of patients to the two groups was done by SPSS software before the intervention stage.

##### Settings and conduct

The research project was performed in the emergency department of Ghaem Hospital, that is the largest center for the management and acceptance of nerve patients in the eastern part of the country. The Nurse using emergency severity index Scale will stay blind to the researcher's triage process and will not share the decision information.

##### Participants/Inclusion and exclusion criteria

Patients referring to the emergency department with a complaint of neuro sensory impairment were enrolled in the study. At the end of the study, patients that their neuro-sensory defects (diagnosed by a specialist physician) were diagnosed for reasons except central nervous system impairment, were excluded from the study.

##### Intervention groups

Patients in the intervention group will be triage based on a researcher-made instrument that has 5 levels.

##### Main outcome variables

1. Compare the time elapsed since the patient leaves the triage room until performing any of the following in two methods, stroke triage scale and emergency severity index (ESI): CT scan, visit doctor, check orders by nurse
2. Comparison of the average of patients' triage levels in

two methods of stroke triage scale and ESI in each of the following sections: ICU hospitalized in the neurology, discharged patients 3. Measurement of triage error and sensitivity and specificity in two stroke triage scale and emergency severity index (ESI) 4. Thrombolytic therapy

#### General information

##### Reason for update

##### Acronym

ESI

##### IRCT registration information

IRCT registration number: **IRCT20171031037138N1**

Registration date: **2018-03-27, 1397/01/07**

Registration timing: **prospective**

Last update: **2018-03-27, 1397/01/07**

Update count: **0**

##### Registration date

2018-03-27, 1397/01/07

##### Registrant information

##### Name

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 51 4464 9561

##### Email address

abedia951@mums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2018-01-28, 1396/11/08

##### Expected recruitment end date

2019-04-19, 1398/01/30

**Actual recruitment start date**

2018-12-06, 1397/09/15

**Actual recruitment end date**

2019-02-04, 1397/11/15

**Trial completion date**

empty

**Scientific title**

Camparison of Stroke Triage scale (Researcher) and Emergency Severity Index scale (ESI) on timing indicators and triage errors among patients with neuro sensory deficit referred to emergency department

**Public title**

The effect of Stroke Triage scale (Researcher) on timing indicators and triage errors among patients with neuro sensory deficit referred to emergency department

**Purpose**

Screening

**Inclusion/Exclusion criteria****Inclusion criteria:**

Satisfied to participate in the study. If they are over 18 years old. Ability to speak Persian. Referring to the emergency department is at least one of the most common symptoms of sensory neural impairment:  
•Severe Headache •Weakness or paralysis on one side of the body •Sudden, severe numbness in any part of the body •Visual disturbance (sudden loss of vision)  
•Difficulty walking (staggering or veering) •Coordination problems in the arms and hands •Slurred speech or inability to speak

**Exclusion criteria:**

Incomplete or corrupted patient records Sending the patient to other treatment centers At the end of the study, patients that their neuro-sensory defects (diagnosed by a specialist physician) are diagnosed for reasons except central nervous system impairment are excluded from the study , and Patients who do not have an emergency file are excluded Patients who do not want to continue to participate

**Age**

From **18 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

- Participant
- Care provider

**Sample size**

Target sample size: **72**

Actual sample size reached: **105**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

After the patient enters to the triage room, if there is a suspicion that there is a sensory impairment, using random allocation method (using SPSS software), they are divided into two groups: intervention and control.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

The Nurse using emergency severity index Scale will stay blind to the researcher's triage process and will not share the decision information.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

Introduction of Triage Stroke Scale (Researcher): It has five levels. First level: Patients referred with signs of neuro-sensory deficit accompanied by a decrease in the level of consciousness that requires advanced life-saving measures. Second Level: Patients referred with symptoms of neuro-sensory deficit without loss of consciousness. The next three levels of researcher's scale are the same as the three levels of ABCD2 scale, so patients with transient ischemic attack that may not be properly diagnosed or may be undertriaged , are identified by the researcher's scale. Third level: people who score from the scoreboard ABCD2 score 6-7 will be on this level. Level 4: Individuals who score from the Scoreboard Score ABCD2 score of 4-5 will be on this level. Level 5: Individuals who score from the Scoreboard score of ABCD2 score 0-3 will be placed at this level.

**Secondary Ids**

empty

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

The Ethics Committee of Mashhad University of Medical Sciences

**Street address**

Ahmad abad Ave, Faculty of Nursing and Midwifery of Mashhad

**City**

Mashhad

**Province**

Razavi Khorasan

**Postal code**

1234566758

**Approval date**

2018-01-16, 1396/10/26

**Ethics committee reference number**

960825

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

stroke

**ICD-10 code**

163.9

**ICD-10 code description**

Cerebral infarction, unspecified

## Primary outcomes

### 1

#### Description

1.The length of time elapsed from the exit of the triage room until each of the following measures and comparing them based on two methods of stroke triage scale and the emergency severity index scale (ESI): CT Scan doctor appointment Checks the orders by the nurse  
2.The mean of the triage score of patients hospitalized in ICU in two methods of stroke triage scale and the emergency severity index scale (ESI). 3.The mean of the triage score of patients admitted to the neurology department in two methods of stroke triage scale and the emergency severity index scale (ESI). 4.The mean of the triage score of discharged patients in two methods of stroke triage scale and the emergency severity index scale (ESI). 5.Measurement of triage error and sensitivity and specificity in two methods of stroke triage scale and the emergency severity index scale (ESI). 6.thrombolytic therapy.

#### Timepoint

The final outcome of the patient is determined from the patients leaves the triage room to 6 hours later.

#### Method of measurement

The level of triage of patients entering the study is determined using the items available at each scale. To measure time indicators, the hours recorded in the patient file are used.

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: patients who are in the intervention group fall into five classes using the stroke triage scale.

#### Category

Other

### 2

#### Description

Control group: Patients who are in the control group fall into five classes using the emergency severity index scale.

#### Category

Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Emergency Department of Ghaem Hospital.

##### Full name of responsible person

Dr. zaremehei

#### Street address

Ahmad abad Avenue- Ghaem hospital

#### City

Mashhad

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Razavi Khorasan

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12345678

#### Phone

+98 51 3887 8888

#### Email

MazlomR@mums.ac.ir

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Full name of responsible person

Dr. Mohsen Tappaghdi

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##### Email

Abedia951@mums.ac.ir

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Mashhad University of Medical Sciences

#### Proportion provided by this source

100

#### Public or private sector

Public

#### Domestic or foreign origin

Domestic

#### Category of foreign source of funding

empty

#### Country of origin

#### Type of organization providing the funding

Academic

## Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Full name of responsible person

Seyed Reza Mazlom

##### Position

Faculty trainer

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Nursery

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seyed reza mazlom

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**Sharing plan**

**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

Because of secondary data analysis

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

No - There is not a plan to make this available

**Informed Consent Form**

No - There is not a plan to make this available

**Clinical Study Report**

No - There is not a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available