Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

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

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 appiontment 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

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Aḥmad abad Avenue- Ghaem hospital

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Sponsors / Funding sources

1

Sponsor

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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

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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 secondery 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