

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Jun 2026

Evaluation of successful rate of Ultrasound-guided Central Intravenous Access versus traditional approaches

Protocol summary

Summary

The purpose of this investigation is to improve ultrasound-guided central intravenous access versus traditional approaches. Inclusion criteria: Age>18 years; emergency admission; necessity for Central Intravenous access according to present attending; Exclusion criteria: Coagulation disorders; any contraindication for Central Access catheterization. Target sample size is 100 of patients admitting in the emergency department, asking them to participate in the research project voluntarily. After determining candidacy, patients will randomly be divided into two groups. In the first group traditional or classic central access catheterization with anatomic landmarks will be done and in the second group ultrasound-guided central intravenous access will be accomplished. Complications of two methods will be compared during presence at emergency room.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201504297751N6**
Registration date: **2015-05-10, 1394/02/20**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-05-10, 1394/02/20

Registrant information

Name

Davood Farsi

Name of organization / entity

TUMS

Country

Iran (Islamic Republic of)

Phone

+98 21 6652 5327

Email address

dfarsi@sina.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2014-03-21, 1393/01/01

Expected recruitment end date

2015-03-21, 1394/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of successful rate of Ultrasound-guided Central Intravenous Access versus traditional approaches

Public title

Ultrasonography-Guided Central Intravenous Access

Purpose

Diagnostic

Inclusion/Exclusion criteria

Inclusion criteria: Age>18 years; emergency admission; necessity for Central Intravenous access according to present attending; Exclusion criteria: Coagulation disorders; any contraindication for Central Access catheterization.

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)

N/A

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

Single blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Iran University of Medical Sciences

Street address

Hemmat highway

City

Tehran

Postal code**Approval date**

2015-04-16, 1394/01/27

Ethics committee reference number

105//449//94//s

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

General symptoms and signs

ICD-10 code

R50

ICD-10 code description

Fever of other and unknown origin

2**Description of health condition studied**

General symptoms and signs

ICD-10 code

R51

ICD-10 code description

Headache

3**Description of health condition studied**

General symptoms and signs

ICD-10 code

R54

ICD-10 code description

Senility

4**Description of health condition studied**

General symptoms and signs

ICD-10 code

R53

ICD-10 code description

Malaise and fatigue

5**Description of health condition studied**

General symptoms and signs

ICD-10 code

R55

ICD-10 code description

Syncope and collapse

6**Description of health condition studied**

General symptoms and signs

ICD-10 code

R56

ICD-10 code description

Convulsions not elsewhere classified

7**Description of health condition studied**

General symptoms and signs

ICD-10 code

R57

ICD-10 code description

Shock not elsewhere classified

8**Description of health condition studied**

General symptoms and signs

ICD-10 code

R58

ICD-10 code description

Haemorrhage not elsewhere classified

9**Description of health condition studied**

General symptoms and signs

ICD-10 code

R59

ICD-10 code description

Enlarged lymph nodes

10**Description of health condition studied**

General symptoms and signs

ICD-10 code

R60

ICD-10 code description

Oedema not elsewhere classified

11**Description of health condition studied**

General symptoms and signs

ICD-10 code

R61

ICD-10 code description

Hyperhidrosis

12**Description of health condition studied**

General symptoms and signs

ICD-10 code

R62

ICD-10 code description

Lack of expected normal physiological development

13**Description of health condition studied**

General symptoms and signs

ICD-10 code

R63

ICD-10 code description

Symptoms and signs concerning food and fluid intake

14**Description of health condition studied**

General symptoms and signs

ICD-10 code

R64

ICD-10 code description

Cachexia

15**Description of health condition studied**

General symptoms and signs

ICD-10 code

R65

ICD-10 code description

Systemic Inflammatory Response Syndrome

16**Description of health condition studied**

General symptoms and signs

ICD-10 code

R68

ICD-10 code description

Other general symptoms and signs

17**Description of health condition studied**

General symptoms and signs

ICD-10 code

R69

ICD-10 code description

Unknown and unspecified causes of morbidity

18**Description of health condition studied**

General symptoms and signs

ICD-10 code

R52

ICD-10 code description

Pain not elsewhere classified

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

Duration of Traditional CV-line Access

Timepoint

At the beginning of study

Method of measurement

Seconds

2**Description**

Duration of ultrasonography-guided central intravenous access

Timepoint

At the beginning of study

Method of measurement

Seconds

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

Reason of using ultrasonography-guided central intravenous access

Timepoint

At the beginning of study

Method of measurement

Indication for CV line insertion

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

For other 50 patients, a central vein access will be inserted.

Category

Diagnosis

2**Description**

For 50 patients, a central IV-line access will be inserted traditionally using landmarks.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Emergency Departement, Rasoul Akram hospital

Full name of responsible person

Farshid Farhadi, MD

Street address

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Dr. Mehrdad Eftekhari

Street address

Hemmat highway

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iran 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

Iran University of Medical Sciences

Full name of responsible person

Farshid Farhadi, MD

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Position

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Other areas of specialty/work

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City

Postal code

Phone

00

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