Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 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

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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//د

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 Eftekhar
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
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Farshid Farhadi,MD
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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