

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Evaluation of Success Rate and Complications of Internal Jugular Vein Catheterization with and without Ultrasonography Guide in Emergency Ward: a Randomized Clinical Trial

Protocol summary

Summary

This study is designed to evaluate results of ultrasound guided internal jugular vein catheterization in emergency ward and promotion of its using in Iran. One hundred patients referred to emergency ward of Baqiyatallah Hospital needing internal jugular vein catheterization will randomly assigned to two groups. Catheterization will be accomplished using ultrasound guidance after viewing internal jugular vein in the first group, and using anatomical landmarks in the second group. Patients younger than 14 years old and pregnant women will be exclude from study. Side of catheterization (left or right), risk factors such as hypertension, diabetes mellitus, coagulopathies, ischemic heart disease, cigarette smoking, edema, local masses, shock, cardiac arrest, chronic lung diseases, loss of consciousness, sepsis, malignancy, renal disease, trauma, hepatic failure, hematologic disorders, electrolyte imbalance, respiratory distress, patients under mechanical ventilator and vasodilator drugs infusion will be evaluated. Venous access time, numbers of tries, success rate, and catheter related complications will be compared between groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014081117413N6**
Registration date: **2014-08-21, 1393/05/30**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-08-21, 1393/05/30

Registrant information

Name

Hamidreza Karimi-Sari

Name of organization / entity

Student Research Committee, Baqiyatallah University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Baqiyatallah University of Medical Sciences, Deputy of Research

Expected recruitment start date

2014-04-21, 1393/02/01

Expected recruitment end date

2014-07-23, 1393/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of Success Rate and Complications of Internal Jugular Vein Catheterization with and without Ultrasonography Guide in Emergency Ward: a Randomized Clinical Trial

Public title

Internal Jugular Vein Catheterization with and without Ultrasonography Guide

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: patients referred to emergency ward of Baqiyatallah Hospital needing internal jugular vein catheterization
Exclusion criteria: Patients younger than 14 years old; pregnant women; uncontrolled coagulopathies; anticoagulant drugs consumption within the last day

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)

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

Baqiyatallah University of Medical Sciences Ethics Committee

Street address

Baqiyatallah University of Medical Sciences, Nosrati alley, Sheikh Bahaei Street, Mollasadra Street, Vanak Square, Tehran, I.R.Iran.

City

Tehran

Postal code

Approval date

2013-06-14, 1392/03/24

Ethics committee reference number

28-2

Health conditions studied

1

Description of health condition studied

Internal jugular vein puncture

ICD-10 code

Y62.6

ICD-10 code description

During aspiration, puncture and other catheterization

2

Description of health condition studied

Venous catheter complications

ICD-10 code

T82.4

ICD-10 code description

Mechanical complication of vascular dialysis catheter

Primary outcomes

1

Description

Internal jugular access time

Timepoint

From needle contacts skin to an established venous flow

Method of measurement

Seconds

2

Description

Number of attempts

Timepoint

at catheterization time

Method of measurement

Numbers

3

Description

Catheter related complications

Timepoint

after catheterization

Method of measurement

yes/ no

Secondary outcomes

empty

Intervention groups

1

Description

Ultrasound guided jugular vein catheterization

Category

Treatment - Devices

2

Description

Jugular vein catheterization using anatomical landmarks

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Emergency ward of Baqiyatallah Hospital

Full name of responsible person

Hamidreza Karimi Sari

Street address

Baqiyatallah Hospital, Nosrati alley, Sheikh Bahaei Street, Mollasadra Street, Vanak Square, Tehran, I.R.Iran.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Baqiyatallah University of Medical Sciences, Deputy of Research

Full name of responsible person

Mehrdad Faraji

Street address

Baqiyatallah Hospital, Sheikh Bahaei Street, Mollasadra Street, Vanak Square, Tehran, I.R.Iran.

City

Tehran

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Baqiyatallah University of Medical Sciences, Deputy of Research

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**

Students' Research Committee (SRC), Baqiyatallah University of Medical Sciences, Tehran, IR Iran

Full name of responsible person

Hamidreza Karimi Sari

Position

General Practitioner

Other areas of specialty/work**Street address**

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Person responsible for scientific inquiries

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Assistant Professor

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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