Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of peripheral venous cannulation success rate with ultrasonography or direct vision in children under 5 years

Protocol summary

Summary

We sought to determine if the use of a static ultrasound technique could, a) allow clinicians to visualize peripheral veins and b) improve success rates of peripheral venous cannulation in young children in the pediatric patients. We will perform a randomized clinical trial of 70 children less than 5 years old by physical status with ASA I and ASA II in an academic pediatric hospital who will be required IV access. We'll be randomized patients to either continued standard IV attempts. In the ultrasound group , great saphenous vein localization will be performed by a physician. patients who had multiple attempts to iv accessing or had scar in iv access localization will be excluded. Intravenous cannulation attempts will be performed by the anesthesiologist who have transverse view on target vessel location by ultrasonography. In second group intravenous cannulation attempts will be performed by the same anesthesiologist who have direct view on anatomical signs for standard iv access. We will record success rate in first try. We will compare group success rates using differences in 95% confidence intervals.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201501304041N9**
Registration date: **2015-04-23, 1394/02/03**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2015-04-23, 1394/02/03

Registrant information

Name

Mahin Seyedhejazi

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 3385 2252

Email address

seidhejazie@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Tabriz Uiniversity of Medical Sciences

Expected recruitment start date

2014-03-21, 1393/01/01

Expected recruitment end date

2015-06-21, 1394/03/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of peripheral venous cannulation success rate with ultrasonography or direct vision in children under 5 years

Public title

ultrasonography for peripheral venous cannulation

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria : physical status with ASA I and ASA II ; age less than 5 years old ; candidate to surgery procedure less than 1 hour. exclusion criteria : patients who had multiple attempts to iv accessing ; had scar in iv access localization.

Age

To **5 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **70**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Tabriz University of Medical Sciences

Street address
Ethic committee of university, Research Vice chancellor of Tabriz University of Medical Sciences , Tabriz University of Medical Sciences, Daneshgah Street, Tabriz.Iran

City
Tabriz

Postal code
5166614711

Approval date
2014-02-12, 1392/11/23

Ethics committee reference number
931

Health conditions studied

1

Description of health condition studied
anesthesia for surgery

ICD-10 code
K40.2

ICD-10 code description
Bilateral inguinal hernia, without obstruction or gangrene

Primary outcomes

1

Description
success rate in first try

Timepoint
after success iv access

Method of measurement
questionnaires

Secondary outcomes

empty

Intervention groups

1

Description
ultrasonography

Category
Treatment - Other

2

Description
classic method

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Tabriz Children's Hospital

Full name of responsible person
Alireza Hatami

Street address
Tabriz Children's Hospital, Sheshgelan street, Tabriz, Iran

City
Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tabriz University of Medical Sciences

Full name of responsible person
Dr Hasan Soleimanpour

Street address
Golgasht Ave- Tabriz University of Medical Sciences

City
Tabriz

Grant name

Grant code / Reference number

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

Title of funding source
Tabriz 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
Tabriz University of Medical Sciences
Full name of responsible person
Alireza Hatami
Position
student
Other areas of specialty/work
Street address
Tabriz Children Hospital,Sheshkelan,Tabriz
City
Tabriz
Postal code
Phone
+98 41 3477 3957
Fax
Email
alireza.hatami.1990@gmail.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Mahin Seyedhejazi
Position
Professor
Other areas of specialty/work
Street address
Tabriz Children Hospital,Sheshkelan,Tabriz
City
Tabriz
Postal code
Phone
+98 41 3477 3957
Fax
Email
seidhejazie@yahoo.com
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Mahin Seyedhejazi
Position
Professor
Other areas of specialty/work
Street address
Tabriz Children Hospital,Sheshkelan,Tabriz
City
Tabriz
Postal code
Phone
+98 41 3477 3957
Fax
Email
seidhejazie@yahoo.com
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