

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 Jun 2026

### Comparing permanent hemodialysis recirculation with fixed tip and split tip catheters in chronic renal failure patients

#### Protocol summary

##### Summary

The present study aims to compare permanent hemodialysis recirculation with fixed tip and split tip catheters in chronic renal failure patients who attend Kermanshah Imam Reza hospital. It is a single blind clinical study. 164 patients were randomly selected and divided to two experiment groups. In both groups, after prep and drep the patients and creating proper position in neck extension, internal Jugular vein is found at bifurcation of Sternocleidomastoid muscle in Supraclavicular triangle toward Niple at the same side with needle guide. In the first group the main needle of fixed tip catheter set will be placed on the needle and in the second group the main needle of split tip catheter will be on the needle. Dialysis will be ceased 30 minutes later at optimal flow 250ml/m. Simultaneously, three blood samples are taken from artery and venous dialysis and also upper extremity vein opposite to catheter embedding. Samples are sent to laboratory to be tested for their urea levels and dialysis continues. Finally, considering the urea level in blood, blood recirculation is measured using three needle method and two groups are compared on their urea levels. Inclusion: written consent to attend the study by patients; patients with renal failure requiring hemodialysis; age of 16 to 70. Exclusion: patients who experienced central vein catheter. .

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2015031214333N30**  
Registration date: **2015-05-07, 1394/02/17**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2015-05-07, 1394/02/17

##### Registrant information

###### Name

Feizollah Foroughi

###### Name of organization / entity

kermanshah University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 83 1821 4653

###### Email address

fforoughi@kums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Kermanshah university of medical sciences

##### Expected recruitment start date

2014-05-22, 1393/03/01

##### Expected recruitment end date

2015-02-19, 1393/11/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparing permanent hemodialysis recirculation with fixed tip and split tip catheters in chronic renal failure patients

##### Public title

Study of two types of Permanent Hemodialysis Recirculation in Fixed Tip and Split Tip Catheters in chronic renal failure patients

##### Purpose

Treatment

## Inclusion/Exclusion criteria

Inclusion: written consent to attend the study by patients; patients with renal failure requiring hemodialysis; age of 16 to 70. Exclusion: patients who experienced central vein catheter.

## Age

From **16 years** old to **70 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **164**

## 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

Kermanshah University of Medical Sciences

##### Street address

Building No.2, Shahid Beheshti, Vice Chancellor for Research Affairs, Kermanshah University of Medical Sciences

##### City

Kermanshah

##### Postal code

##### Approval date

2014-07-01, 1393/04/10

##### Ethics committee reference number

420/7/13765/پ

## Health conditions studied

### 1

#### Description of health condition studied

Chronic Kidney Disease

#### ICD-10 code

N18.5

#### ICD-10 code description

Chronic kidney disease, stage 5

## Primary outcomes

### 1

#### Description

Venous blood urea rate

#### Timepoint

30 minutes after starting dialysis

#### Method of measurement

Through laboratory

### 2

#### Description

Arterial blood urea rate

#### Timepoint

30 minutes after starting dialysis

#### Method of measurement

Through laboratory

### 3

#### Description

Peripheral blood urea rate

#### Timepoint

30 minutes after starting dialysis

#### Method of measurement

Through laboratory

### 4

#### Description

Recirculation of blood

#### Timepoint

Finishing the dialysis

#### Method of measurement

Based on the formula  $\{(p-a)(p-v)\} * 100$

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

In the first group, after prep and drep the patients and creating proper position in neck extension, internal Jugular vein is found at bifurcation of Sternocleidomastoid muscle in Supraclavicular triangle toward Niple at the same side with needle guide. The main needle of fixed tip catheter set will be placed on the needle Dialysis will be ceased 30 minutes later at optimal flow 250ml/m. Simultaneously, three blood samples are taken from artery and venous dialysis and also upper extremity vein opposite to catheter embedding. Samples are sent to laboratory to determine their urea levels and dialysis resumes. Finally, considering the urea level in blood, blood recirculation is measured using three needles method.

#### Category

Treatment - Other

## 2

### Description

In the second groups, after prep and drep the patients and creating proper position in neck extension, internal Jugular vein is found at bifurcation of Sternocleidomastoid muscle in Supraclavicular triangle toward Niple at the same side with needle guide. In the second group the main needle of split tip catheter set will be on the needle. Dialysis will be ceased 30 minutes later at optimal flow 250ml/m. Simultaneously, three blood samples are taken from artery and venous dialysis and also upper extremity vein opposite to catheter embedding. Samples are sent to laboratory to determine their urea levels and dialysis continues. Finally, considering the urea level in blood, blood recirculation is measured using three needles method. .

### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

Emam reza Hospital

**Full name of responsible person**

Dr. Mahmood Rasekhi

**Street address**

Emamreza hospital, Parastar boulevard

**City**

Kermanshah

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Kermanshah University of Medical Sciences

**Full name of responsible person**

Koroush Hamzehee

**Street address**

Building No.2, Shahid Beheshti, Vice Chancellor for Research Affairs, Kermanshah University of Medical Sciences

**City**

Kermanshah

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

Yes

**Title of funding source**

Kermanshah 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**

## Person responsible for scientific inquiries

**Contact****Name of organization / entity**

Kermanshah University of Medical Sciences

**Full name of responsible person**

Dr. Ezatollah Sadeghi

**Position**

Vascular Surgery

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

Emamreza hospital, Parastar boulevard

**City**

Kermanshah

**Postal code****Phone**

+98 83 3427 6309

**Fax****Email**

Ezatollahsadeghi@yahoo.com

**Web page address**

## Person responsible for updating data

**Contact**

## 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*