

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

18 Jun 2026

### The effect of selected exercise during dialysis on some hematology indicators and dialysis quality in hemodialysis patients.

#### Protocol summary

##### Study aim

to determine the effect of selected exercise during dialysis on some hematology indicators and dialysis quality in hemodialysis patients.

##### Design

controlled clinical trial with a parallel group design of 60 Subjects, Randomised

##### Settings and conduct

In this quasi-experimental study, referring to Hazrat Abolfazl Dialysis Center in Isfahan, 60 subjects are selected according to the inclusion criteria and are divided into control and intervention groups. Blood samples are taken from patients 48 hours before the start and after the implementation of the training protocol. Some indicators of hematology and quality of blood dialysis are measured. The intervention group will perform a training program during dialysis for 12 weeks and 3 sessions per week. The training program consists of three parts: warm-up, main part and cooling. The warm-up and cooling part include 5 minutes of simple stretching movements and the main part of the exercise includes both isotonic and isometric movements. The control group does not do any exercise program.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: At least three months under dialysis treatment, Complete consent of patient to participate in this study. Exclusion criteria: No history of stroke in the last three months.

##### Intervention groups

Intervention group: Selected exercises that were dividing into three parts: warm-up, main part and cooling. The warm-up and cooling part consisted of 5 minutes of simple stretching movements, and the main part of the exercise, consisting both isotonic and isometric movements. Control group: without any intervention.

##### Main outcome variables

hemoglobin

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20170510033909N11**

Registration date: **2021-05-13, 1400/02/23**

Registration timing: **retrospective**

Last update: **2021-05-13, 1400/02/23**

Update count: **0**

##### Registration date

2021-05-13, 1400/02/23

##### Registrant information

##### Name

فرزانه تقیان

##### Name of organization / entity

دانشگاه آزاد اسلامی. واحد اصفهان

##### Country

Iran (Islamic Republic of)

##### Phone

+98 913 308 0241

##### Email address

f.taghian@khuisf.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2021-04-14, 1400/01/25

##### Expected recruitment end date

2021-04-30, 1400/02/10

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

## Scientific title

The effect of selected exercise during dialysis on some hematology indicators and dialysis quality in hemodialysis patients.

## Public title

Exercise and dialysis

## Purpose

Supportive

## Inclusion/Exclusion criteria

### Inclusion criteria:

At least three months on dialysis treatment Complete patient consent to participate in this study

### Exclusion criteria:

No history of stroke in the last three months

## Age

From **45 years** old to **65 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **60**

## Randomization (investigator's opinion)

Randomized

## Randomization description

Randomization method: Simple randomization;  
Randomization Tool: Flip the coin Randomization Unit: Individual; This method is used to create random sequences in two-group experiments. This method is used to create a random sequence in two-group experiments in such a way that one of the study groups is considered a lion and the other group is considered a line, and based on the sample size, the coin is tossed to assign the two groups randomly.

## 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

Ethics Committee on Research Islamic Azad University - Isfahan Branch (Khorasgan)

##### Street address

University Blvd, Arghavanie, East Gay Street, Isfahan

##### City

Isfahan

## Province

Isfahan

## Postal code

8155139998

## Approval date

2020-08-19, 1399/05/29

## Ethics committee reference number

IR.IAU.KHUISF.REC.1399.146

## Health conditions studied

### 1

#### Description of health condition studied

hemodialysis patients

#### ICD-10 code

Z49.31

#### ICD-10 code description

Encounter for adequacy testing for hemodialysis

## Primary outcomes

### 1

#### Description

Hematological indicators

#### Timepoint

At the beginning and end of 12 weeks of study

#### Method of measurement

It is measured by using the venous blood sample of the subjects and the hematology cell counter analyzer of BC model Mindray company made in Iran.

## Secondary outcomes

### 1

#### Description

The quality of dialysis

#### Timepoint

At the beginning and end of the study after 12 weeks

#### Method of measurement

Will be checked out by two laboratory indicators KT / V and URR. In the KT / V formula, the variable K means urea clearance (dialysis purification rate), T means dialysis time, and V indicates the volume of urea distribution, which is approximately equal to the total body water. The URR was calculated by the formula  $BUN1 - BUN2 / BUN1$ , which is BUN1 urea before dialysis and BUN2 urea after dialysis.

## Intervention groups

### 1

#### Description

Intervention group: Selected exercises that were dividing into three parts: warm-up, main part and cooling. The warm-up and cooling part consisted of 5 minutes of simple stretching movements, and the main part of the exercise, consisting both isotonic and isometric

movements.  
**Category**  
Rehabilitation

2

**Description**  
Control group: without intervention  
**Category**  
N/A

## Recruitment centers

1

**Recruitment center**  
**Name of recruitment center**  
Abolfazl Charity Clinic  
**Full name of responsible person**  
Mohammad Ali Tabibi  
**Street address**  
In front of Social Security Insurance, Imam Khomeini  
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## Sponsors / Funding sources

1

**Sponsor**  
**Name of organization / entity**  
Islamic Azad University, Isfahan Branch (Khorasgan),  
Research Deputy  
**Full name of responsible person**  
Majid Toghyani  
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**Email**  
F\_taghian@yahoo.com  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor  
organization/entity?**  
Yes  
**Title of funding source**

Islamic Azad University, Isfahan Branch (Khorasgan),  
Research Deputy  
**Proportion provided by this source**  
100  
**Public or private sector**  
Public  
**Domestic or foreign origin**  
Domestic  
**Category of foreign source of funding**  
empty  
**Country of origin**  
**Type of organization providing the funding**  
Academic

## Person responsible for general inquiries

**Contact**  
**Name of organization / entity**  
Farzaneh taghian  
**Full name of responsible person**  
Islamic Azad University  
**Position**  
Associate professor  
**Latest degree**  
Ph.D.  
**Other areas of specialty/work**  
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**Person responsible for updating data****Contact****Name of organization / entity**

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**Position**

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**Other areas of specialty/work**

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**Web page address****Sharing plan****Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

No more information

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

No - There is not a plan to make this available

**Informed Consent Form**

No - There is not a plan to make this available

**Clinical Study Report**

No - There is not a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available