

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

05 Jul 2026

### Comparison of the effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

#### Protocol summary

##### Study aim

Determination of the effect of two types of short message service (interactive and non-interactive) on adherence to treatment in patients with hypertension

##### Design

A single blinded, randomized, controlled clinical trial with a parallel group

##### Settings and conduct

The present study was conducted on patients referred to AJA 502 hospital in Tehran, Iran for a period of four months in 2019. 63 patients were selected by purposive sampling method and then were randomly allocated to three groups of 21 patients Interactive Short Message Service (ISMS), Non-interactive Short Message Service (N-ISMS) and control. Questionnaires were completed for their patients and their blood pressure was measured in the first week of each month and in three separate days for all three groups. Four educational messages about adherence to the treatment of hypertension were sent to the ISMS and N-ISMS groups every week for a period of four months, a total of 64 messages. Additionally, in the ISMS group, patients without a time limit and within 24 hours, had two-way communication by asking their questions to the researcher. Questionnaires were completed again by the researcher four months after the beginning of the study.

##### Participants/Inclusion and exclusion criteria

The inclusion criteria: a clinical diagnosis of hypertension, aged 35-64 years, own or have daily access to a cellphone, lack of other diseases requires taking drugs other than anti-hypertensive drugs, not having a history of known heart disease, such as myocardial infarction, and willing to give informed consent to participate in the study. The exclusion criteria: unwillingness to participate further

##### Intervention groups

The intervention group 1 received interactive SMS,

intervention group 2 non-interactive SMS intervention and control groups received a training booklet.

##### Main outcome variables

Adherence to treatment, Blood pressure

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20190120042423N1**

Registration date: **2019-04-26, 1398/02/06**

Registration timing: **retrospective**

Last update: **2019-04-26, 1398/02/06**

Update count: **0**

##### Registration date

2019-04-26, 1398/02/06

##### Registrant information

##### Name

Ehsan Rahmanipour

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 7750 0404

##### Email address

ehsanrahmanipoor@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2017-11-22, 1396/09/01

##### Expected recruitment end date

2018-02-20, 1396/12/01

##### Actual recruitment start date

2017-12-06, 1396/09/15  
**Actual recruitment end date**  
2018-02-19, 1396/11/30  
**Trial completion date**  
2018-09-23, 1397/07/01

**Scientific title**  
Comparison of the effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

**Public title**  
The effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

**Purpose**  
Supportive

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

A clinical diagnosis of hypertension and either currently receiving antihypertensive medication for at least a one month A systolic blood pressure 140-220 mmHg and a diastolic blood pressure 90-120 mmHg at enrolment. Aged 35-64 years Own or have daily access to a cellphone with able to send a SMS text-message Able to use the text messaging function (reading and composing a text message) Able to send and receive a SMS text-message Do not live in a household where another member has been recruited into the trial Currently residing in the trial area and expecting to be resident for the duration of the trial Lack of other diseases requires taking drugs other than anti-hypertensive drugs, such as diabetes Lack of use complementary therapies such as taking herbal medicines during the study Not having a history of known heart disease, such as myocardial infarction Lack of dementia, impaired short-term memory, mental and psychological problems, end-stage liver or kidney disease and cancer Willing to participate in the study

**Exclusion criteria:**

Patients whose regimen has changed for two months or more according to the physician's order Unwillingness to continue cooperation Pregnancy or lactation during the test for female participants

**Age**  
From **35 years** old to **64 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**

- Data analyser

**Sample size**  
Target sample size: **63**  
Actual sample size reached: **63**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
Randomization method: Simple randomization  
Randomization unit: Individual Randomization tools: Throw the dice

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

The single-blind, clinical trial: Blindness was done at the level of the statistical analyst.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

**Secondary Ids**

empty

**Ethics committees**

1

**Ethics committee**

**Name of ethics committee**

Ethics committee Of AJA University Of Medical Science

**Street address**

AJA University Of Medical Science, Etemadzade St., West Fatemi Ave.

**City**

Tehran

**Province**

Tehran

**Postal code**

1411718541

**Approval date**

2017-12-25, 1396/10/04

**Ethics committee reference number**

IR.AJAUMS.REC.1396.90

**Health conditions studied**

1

**Description of health condition studied**

Hypertension

**ICD-10 code**

I10-I15

**ICD-10 code description**

Hypertensive diseases

**Primary outcomes**

1

**Description**

Adherence to treatment

**Timepoint**

Start of study and 4 months after intervention.

**Method of measurement**

Treatment adherence questionnaire for patients with hypertension (TAQPH)

## 2

### **Description**

Blood Pressure

### **Timepoint**

Start of study and 1, 2, 3 and 4 months after intervention.

### **Method of measurement**

Beurer GmbH, Söflinger Str. 218, 89077 Ulm, Germany, Type: BM16, Item No: 652.02

## **Secondary outcomes**

empty

## **Intervention groups**

### 1

#### **Description**

Interactive SMS group: For this group of patients, four training messages were sent each week for 4 months. During this period, patients had two-way communication by asking their questions to the researcher.

#### **Category**

Other

### 2

#### **Description**

Non-interactive SMS group: For this group of patients, four training messages were sent each week for 4 months.

#### **Category**

Other

### 3

#### **Description**

Control group: All patients in this group received a training package.

#### **Category**

Other

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

502 AJA hospital

##### **Full name of responsible person**

Dr. Behzad Moradi

##### **Street address**

502 AJA hospital, Bahar St., Taleghani Ave.

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## **Sponsors / Funding sources**

### 1

#### **Sponsor**

##### **Name of organization / entity**

Artesh University of Medical Sciences

##### **Full name of responsible person**

Dr. Armin Rezaeian

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##### **Phone**

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##### **Web page address**

<http://www.ajaums.ac.ir/>

##### **Grant name**

##### **Grant code / Reference number**

##### **Is the source of funding the same sponsor organization/entity?**

Yes

##### **Title of funding source**

Artesh University of Medical Sciences

##### **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**

Artesh University of Medical Sciences

##### **Full name of responsible person**

Ehsan Rahmanipour

##### **Position**

Instructor

##### **Latest degree**

Master

##### **Other areas of specialty/work**

Nursery

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## Person responsible for scientific inquiries

**Contact**

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Dr Shahla Aliari

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Assistant Professor

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Ph.D.

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## Person responsible for updating data

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**Latest degree**

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**Other areas of specialty/work**

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available