# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

17 Sep 2026

## A comparison between the effectiveness of short message service and reminder cards regarding medication adherence in patients with hypertension: A randomized controlled clinical trial

## Protocol summary

**Summary**

Objectives: This study aims to compare the effectiveness of short message service (SMS) to reminder cards with regard to medication adherence in patients with hypertension. Design: The present study is a randomized controlled clinical trial. Major inclusion and exclusion criteria: Uncontrolled hypertension confirmed by doctor; being on medication for hypertension; living in the city of Urmia; having access to a mobile phone in patient or a member of his family; being able to use the text messaging function in patient or a member of his family (reading and composing a text message); not being on medication for prostate in the male patients; and willingness to participate in the study will be entry requirements. The exclusion criteria will be: being hospitalized in the duration of the study, unwillingness to participate further; moving to another city; and loss of contact with the patient through his/her mobile phone. Setting and conduct: The subjects consisted of 123 of the patients with hypertension at the clinical-educational center of Sayyed-Al Shohada, Urmia, who met the study criteria. Will select based on the convenience method, the samples will be randomly divided into three groups: the SMS group, the reminder-cards group, and the control group. Intervention: The subjects in the SMS group will sent 6 text messages a week for three months, and the subjects in the reminder-cards group will train in how and in what order to use their cards. Outcome measures: Adherence to treatment

## General information

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT2015110917059N2**
Registration date: **2015-12-13, 1394/09/22**
Registration timing: **retrospective**
Last update:
Update count: **0**

**Registration date**

2015-12-13, 1394/09/22

**Registrant information**

**Name**
Masoume Hemmati Maslakpak
**Name of organization / entity**
Urmia University of Medical Sciences
**Country**
Iran (Islamic Republic of)
**Phone**
+98 44 1365 9031
**Email address**
hemmati_m@umsu.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

Vice chancellor for research, Urmia University of Medical Sciences

**Expected recruitment start date**

2014-03-03, 1392/12/12

**Expected recruitment end date**

2014-07-03, 1393/04/12

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

A comparison between the effectiveness of short message service and reminder cards regarding medication adherence in patients with hypertension: A randomized controlled clinical trial

**Public title**
SMS and reminder cards for improving medication adherence
**Purpose**
Health service research
**Inclusion/Exclusion criteria**
Major inclusion and exclusion criteria: Uncontrolled hypertension confirmed by doctor; being on medication for hypertension; living in the city of Urmia; having access to a mobile phone in patient or a member of his family; being able to use the text messaging function in patient or a member of his family (reading and composing a text message); not being on medication for prostate in the male patients; and willingness to participate in the study will be entry requirements. The exclusion criteria will be: being hospitalized in the duration of the study, unwillingness to participate further; moving to another city; and loss of contact with the patient through his/her mobile phone.
**Age**
From **20 years** old to **60 years** old
**Gender**
Both

**Phase**
N/A
**Groups that have been masked**
*No information*
**Sample size**
Target sample size: **143**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
**Blinding (investigator's opinion)**
Single blinded
**Blinding description**
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**
Using colored bags

## Secondary Ids

**1**

**Registry name**
no
**Secondary trial Id**
no
**Registration date**
empty

## Ethics committees

**1**

**Ethics committee**
**Name of ethics committee**
Urmia Medical University
**Street address**
Urmia, Seru Road. Pardis Nazlu
**City**
Urmia
**Postal code**
**Approval date**
2013-09-23, 1392/07/01
**Ethics committee reference number**
192

## Health conditions studied

**1**

**Description of health condition studied**
hypertension
**ICD-10 code**
I10, I15
**ICD-10 code description**
Essential (primary) hypertension, Secondary hypertension

## Primary outcomes

**1**

**Description**
Adherence to treatment
**Timepoint**
Two times
**Method of measurement**
Hill-Bone medication adherence scale

## Secondary outcomes

**1**

**Description**
Hypertension
**Timepoint**
Two times
**Method of measurement**
Mercury sphygmomanometer

## Intervention groups

**1**

**Description**
Intervention group 1: In the reminder cards group, cards in four different colors with the content of the medication regimen (30 cards), diet (30 cards), physical activities (30 cards) and blood pressure monitoring (30 cards) will be designed. Patients will be educated about how to properly use the card (every day of every educational content 1 card). So that the end of the first month 120 card will be read by patients , and in the second and third month reading cards will be repeated two more times. The patients will be expected to inform the researchers if they failed to check their blood pressure or have to visit the clinical center again in the duration of the intervention. Also, all the patients will be asked to

visit the clinical center on alternate weeks (6 times in total during the 3-month intervention) and have their blood pressure checked for free.

**Category**

Treatment - Drugs

**2**

**Description**

Intervention group 2: The patients in the text messaging group will be sent 6 messages a week. Educational content of text messaging is same to educational content of reminder cards and contains medication regimen, diet, physical activities and blood pressure monitoring. Send messages will continue for 3 months. The patients will be expected to inform the researchers if they failed to check their blood pressure or have to visit the clinical center again in the duration of the intervention. Also, all the patients will be asked to visit the clinical center on alternate weeks (6 times in total during the 3-month intervention) and have their blood pressure checked for free.

**Category**

Treatment - Drugs

## Recruitment centers

**1**

**Recruitment center**

**Name of recruitment center**

Clinical-Educational Center of Sayyed-Al Shohada

**Full name of responsible person**

Iraj Mohebi

**Street address**

Postal Code: 571478334, Orjhans Street, Resalat Blvd, Urmia

**City**

Urmia

## Sponsors / Funding sources

**1**

**Sponsor**

**Name of organization / entity**

Vice chancellor for research, Urmia University of Medical Sciences

**Full name of responsible person**

Iraj Mohebi

**Street address**

Postal Code: 571478334, Orjhans Street, Resalat Blvd, Urmia

**City**

Urmia

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Vice chancellor for research, Urmia 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**

Urmia Medical University

**Full name of responsible person**

Masumeh Hemmati Maslakpak

**Position**

Ph.D

**Other areas of specialty/work**

**Street address**

Postal Code: 571478334, Orjhans Street, Resalat Blvd, Urmia

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**Phone**

+98 44 3365 9031

**Fax**

**Email**

hemmatma@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*