

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

A randomized controlled trial comparing the antihypertensive efficacy of valsartan versus telmisartan in young adults with essential hypertension

Protocol summary

Study aim

To compare the antihypertensive efficacy of valsartan and Telmisartan in young adults with newly diagnosed essential hypertension by assessing changes in systolic and diastolic blood pressure after 12 weeks of treatment.

Design

Single-center, two-arm, parallel-group, randomized controlled superiority trial enrolling 126 participants. Participants will be randomly allocated in a 1:1 ratio to receive valsartan or Telmisartan for 12 weeks.

Settings and conduct

This study will be conducted at the Department of Medicine, CMH Rawalpindi. Eligible participants will be randomized to receive Valsartan or Telmisartan and followed for 12 weeks with standardized blood pressure assessments.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Adults aged 18–40 years with newly diagnosed essential hypertension who provide informed consent. Exclusion criteria: Secondary hypertension, pregnancy or lactation, severe renal or hepatic disease, hypersensitivity to ARBs, or serious comorbid illness.

Intervention groups

Participants will receive valsartan 160 mg orally once daily for 12 weeks, along with standard lifestyle modification advice. Blood pressure will be measured at baseline and scheduled follow-up visits.

Main outcome variables

Primary outcome: Change in systolic and diastolic blood pressure (mmHg) from baseline to 12 weeks. Secondary outcome: Proportion of participants achieving target blood pressure (<140/90 mmHg) at 12 weeks.

General information

Reason for update

Acronym

Valsartan vs Telmisartan Trial (VAST)

IRCT registration information

IRCT registration number: **IRCT20260701070040N1**

Registration date: **2026-08-08, 1405/05/17**

Registration timing: **prospective**

Last update: **2026-08-08, 1405/05/17**

Update count: **0**

Registration date

2026-08-08, 1405/05/17

Registrant information

Name

Shahryar Javed

Name of organization / entity

Pak Emirates Military Hospital

Country

Pakistan

Phone

+92 333 8940707

Email address

shahryaj@gmail.com

Recruitment status

recruiting

Funding source

Expected recruitment start date

2026-08-15, 1405/05/24

Expected recruitment end date

2027-02-15, 1405/11/26

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A randomized controlled trial comparing the antihypertensive efficacy of valsartan versus telmisartan in young adults with essential hypertension

Public title

Antihypertensive efficacy of valsartan versus telmisartan in young adults with essential hypertension

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age 18-40 years. Either sex. Newly diagnosed essential hypertension. Previously untreated. Office blood pressure 140/90 mmHg or higher.

Exclusion criteria:

Secondary hypertension Diabetes mellitus Chronic kidney disease (eGFR <60ml/min/1.73 Pregnancy Lactation Known hypersensitivity to angiotensin receptor blockers. Antihypertensive drug use within the previous 4 weeks. Significant hepatic dysfunction. Serum potassium >5.5 mmol/L. Unable or unwilling to complete follow-up.

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

4

Groups that have been masked

- Participant

Sample size

Target sample size: **126**

More than 1 sample in each individual

Number of samples in each individual: **63**

Sixty-three adults aged 18-40 years with newly diagnosed essential hypertension who meet the study inclusion criteria will receive valsartan 160 mg orally once daily for 12 weeks.

Randomization (investigator's opinion)

Randomized

Randomization description

Participants will be randomly allocated (1:1) to valsartan or telmisartan using a computer-generated block randomization sequence. Allocation will be concealed using sequentially numbered, opaque, sealed envelopes opened only after participant enrollment and informed consent.

Blinding (investigator's opinion)

Single blinded

Blinding description

This is a single-blind trial in which participants will be unaware of their treatment allocation. The treating physician responsible for prescribing the medication will know the assigned intervention, while participants will remain blinded throughout the study. Blood pressure measurements and follow-up assessments will be performed according to a standardized protocol.

Placebo

Not used

Assignment

Parallel

Other design features

A prospective, single-center, parallel-group randomized controlled trial with 1:1 allocation. Eligible participants with newly diagnosed essential hypertension will be

randomized to receive either valsartan 160 mg once daily or telmisartan 80 mg once daily for 12 weeks. Blood pressure will be measured at baseline and during scheduled follow-up visits using a standardized protocol and calibrated equipment. Analysis will be performed according to the intention-to-treat principle.

Secondary Ids

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethical Review Committee, Pak Emirates Military Hospital (PEMH), Rawalpindi

Street address

Abid Majeed Road Rawalpindi Cantt

City

Rawalpindi

Postal code

46000

Approval date

2026-07-30, 1405/05/08

Ethics committee reference number

A/28/ERC/76/26

Health conditions studied**1****Description of health condition studied**

Essential Hypertension

ICD-10 code

I10

ICD-10 code description

Essential (primary) hypertension

Primary outcomes**1****Description**

Change in systolic and diastolic blood pressure from baseline

Timepoint

12 weeks

Method of measurement

Office blood pressure measurement using a validated automated sphygmomanometer after 5 minutes of rest, according to standard guidelines.

Secondary outcomes**1****Description**

Proportion of participants achieving target blood

pressure (<140/90 mmHg).

Timepoint

12 weeks

Method of measurement

Blood pressure will be measured using a validated, calibrated automated sphygmomanometer according to standard guidelines.

Intervention groups

1

Description

Intervention group: Participants will receive telmisartan 80 mg orally once daily for 12 weeks along with standard lifestyle modification advice. Blood pressure will be monitored at baseline and follow-up visits.

Category

Treatment - Drugs

2

Description

Control group: Participants will receive valsartan 160 mg orally once daily for 12 weeks along with standard lifestyle modification advice. Blood pressure will be monitored at baseline and follow-up visits.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center**Name of recruitment center**

Combined Military Hospital (CMH), Rawalpindi

Full name of responsible person

Dr. Shahryar Javed

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Abid Majeed road Rawalpindi Cantt

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Email

shahryaj@gmail.com

Sponsors / Funding sources

1

Sponsor**Name of organization / entity**

Pak Emirates Military Hospital Rawalpindi

Full name of responsible person

Dr. Shahryar Javed

Street address

Abid Majeed Road Rawalpindi

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

Yes

Title of funding source

Pak Emirates Military Hospital Rawalpindi

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**

Pak Emirates Military Hospital Rawalpindi

Full name of responsible person

Dr. Shahryar Javed

Position

Post Graduate Trainee

Latest degree

Medical doctor

Other areas of specialty/work

Internal Medicine

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Person responsible for scientific inquiries

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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

There is no current plan to share individual participant data because of participant confidentiality and institutional data-sharing policies.

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Antihypertensive efficacy of Valsartan versus Telmisartan in young adults with essential hypertension.

When the data will become available and for how long

Not applicable

To whom data/document is available

Not applicable

Under which criteria data/document could be used

Not applicable

From where data/document is obtainable

Not applicable

What processes are involved for a request to access data/document

Not applicable

Comments

Not applicable

Person responsible for updating data**Contact****Name of organization / entity**

Pak Emirates Military Hospital Rawalpindi

Full name of responsible person

Dr. Shahryar Javed

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Latest degree

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