Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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
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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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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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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 updating data

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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