

IPERTENSIONE ARTERIOSA: UPDATE 2026

Nuovi scenari terapeutici farmacologici nel controllo dell'ipertensione arteriosa resistente

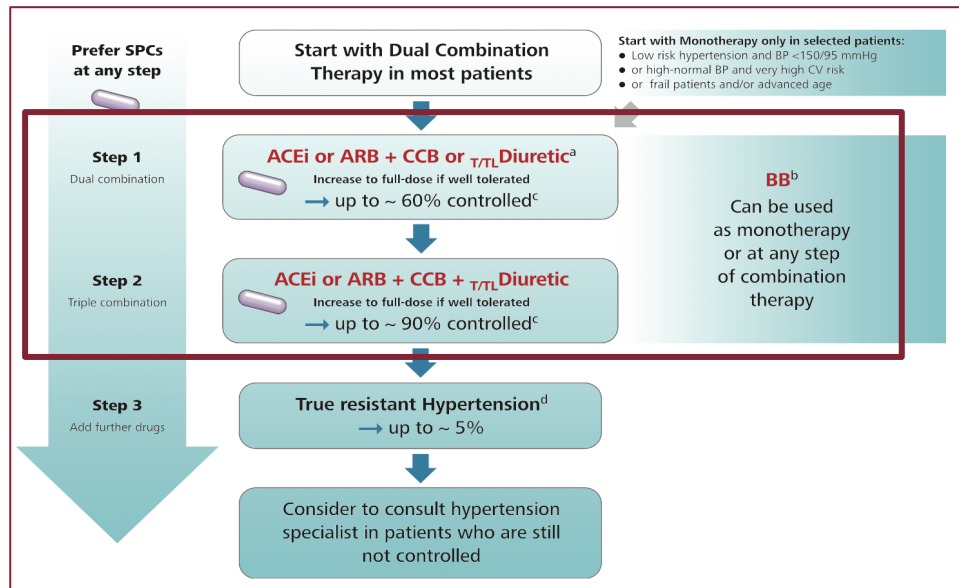
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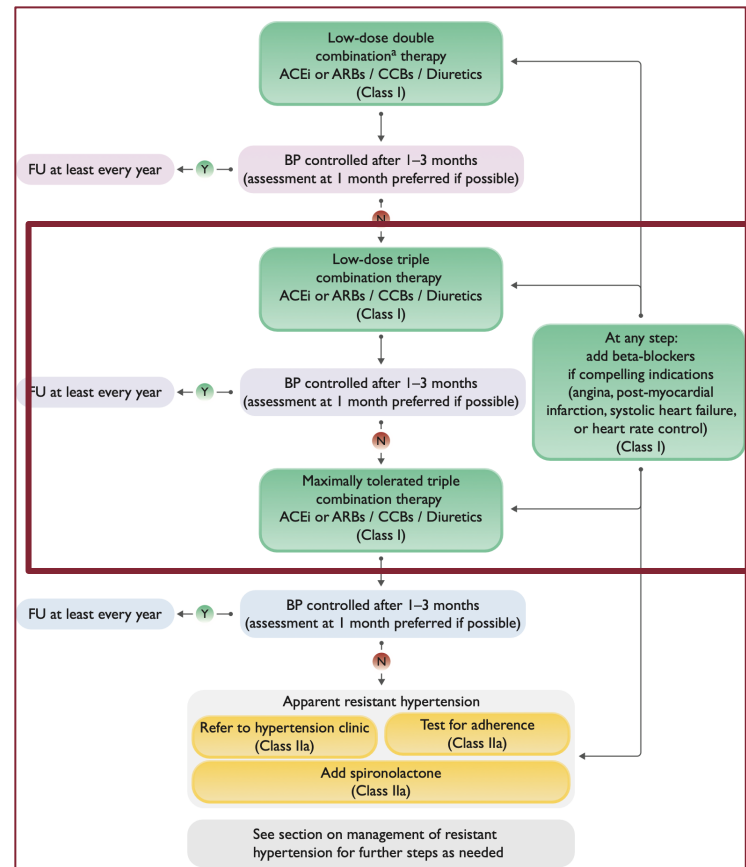




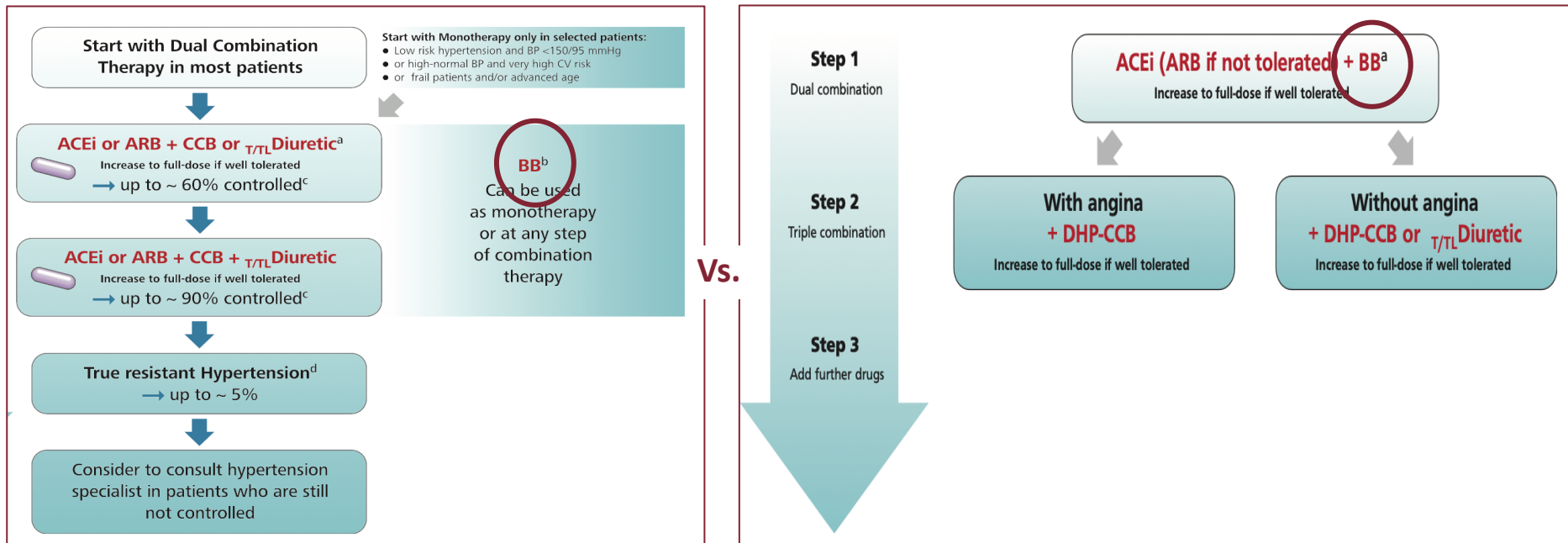
2023 ESH Hypertension Guidelines ¹



2024 ESC Hypertension Guidelines ²

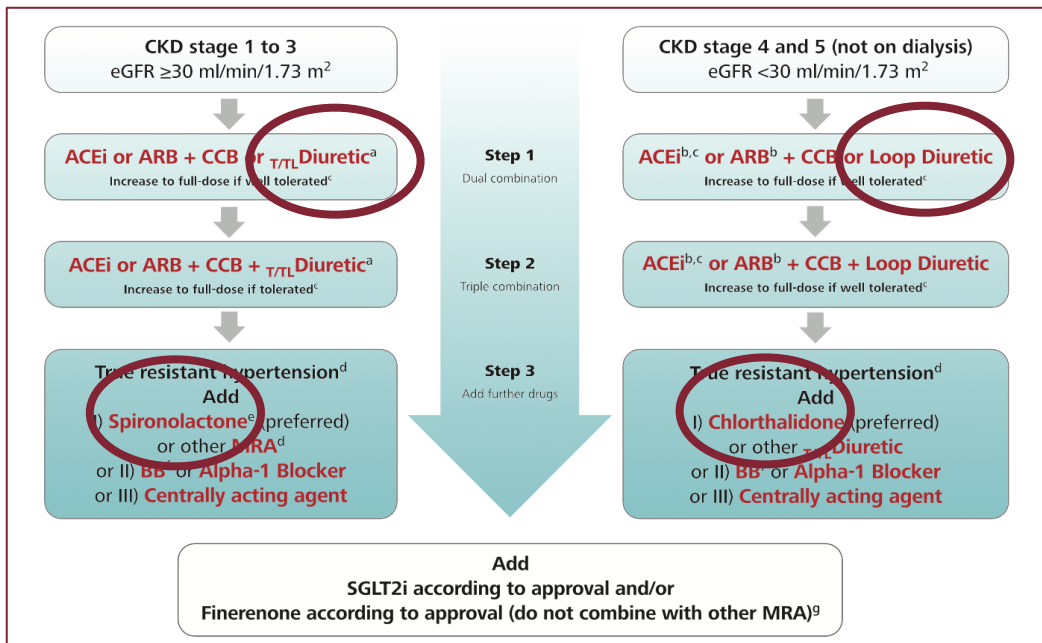


Drug therapy to be used in patients with Hypertension and Chronic CAD



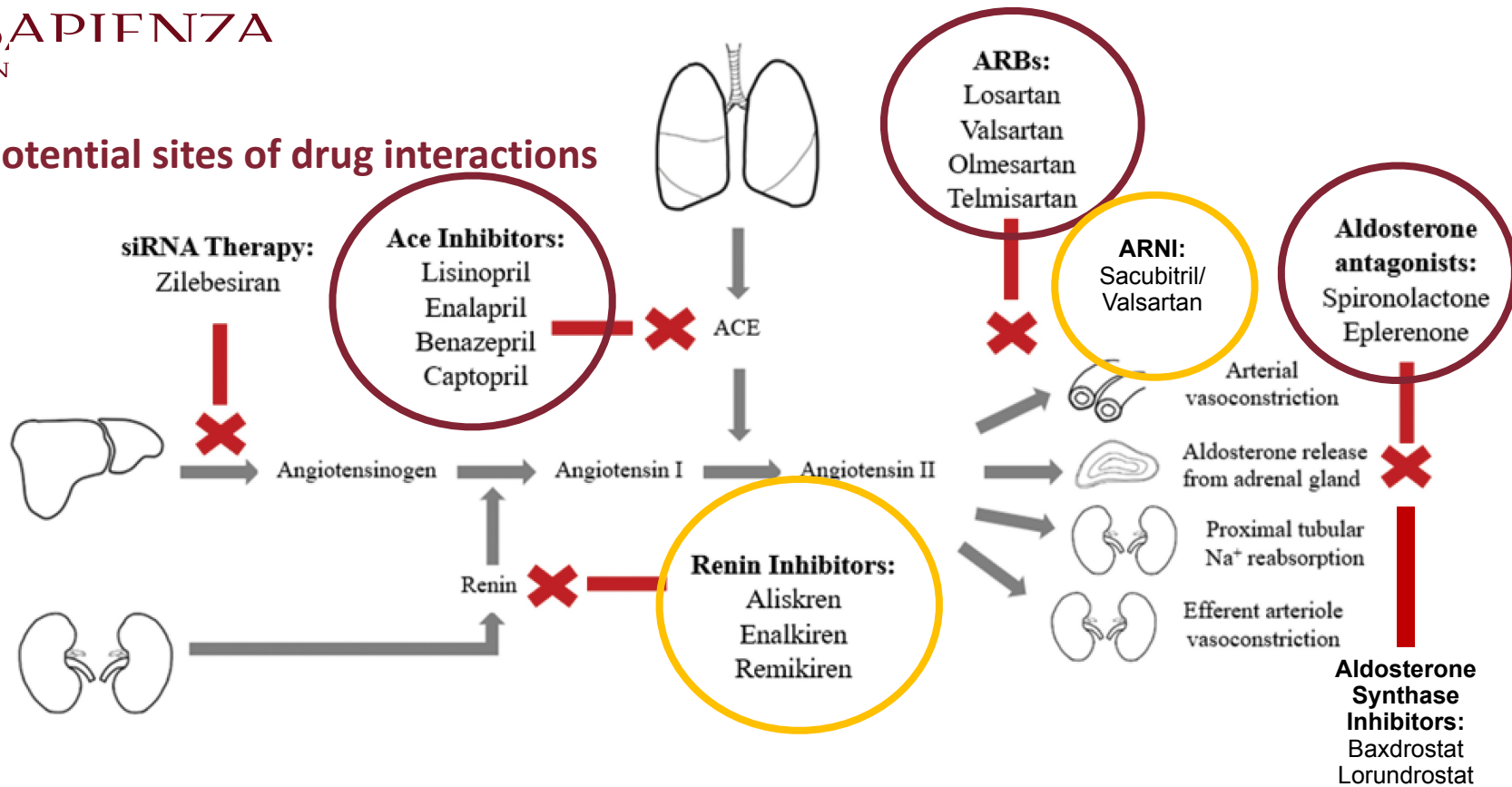
Therapeutic approach to HTN with CKD

2023 ESH Hypertension Guidelines ¹

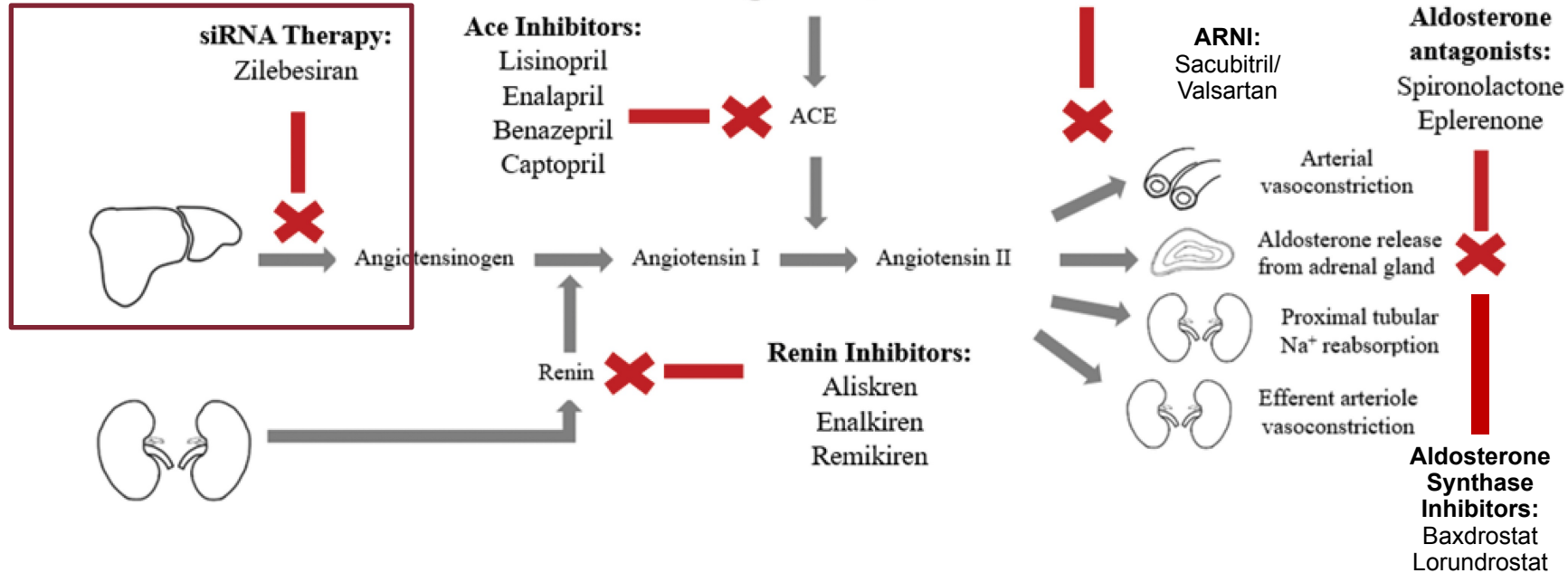


Recommendations	Class ^a	Level ^b
In patients with diabetic or non-diabetic moderate-to-severe CKD and confirmed BP $\geq 130/80$ mmHg, lifestyle optimization and BP-lowering medication are recommended to reduce CVD risk, provided such treatment is well tolerated. ^{275,766}	I	A
In adults with moderate-to-severe CKD who are receiving BP-lowering drugs and who have eGFR >30 mL/min/1.73 m ² , it is recommended to target systolic BP to 120–129 mmHg, if tolerated. Individualized BP targets are recommended for those with lower eGFR or renal transplantation. ^{274,779}	I	A
In hypertensive patients with CKD and eGFR >20 mL/min/1.73 m ² , SGLT2 inhibitors are recommended to improve outcomes in the context of their modest BP-lowering properties. ^{776,777}	I	A
ACE inhibitors or ARBs are more effective at reducing albuminuria than other BP-lowering agents and should be considered as part of the treatment strategy for patients with hypertension and microalbuminuria or proteinuria. ^{780–782}	IIa	B

RAAS: potential sites of drug interactions



RAAS: potential sites of drug interactions





ORIGINAL ARTICLE

Zilebesiran, an RNA Interference Therapeutic Agent for Hypertension

Akshay S. Desai, M.D., M.P.H., David J. Webb, M.D., D.Sc., Jorg Taubel, M.D.,
Sarah Casey, M.B., Ch.B., Yansong Cheng, Ph.D., Gabriel J. Robbie, Ph.D.,
Don Foster, M.S., Stephen A. Huang, M.D., Sean Rhyee, M.D., M.P.H.,
Marianne T. Sweetser, M.D., Ph.D., and George L. Bakris, M.D.

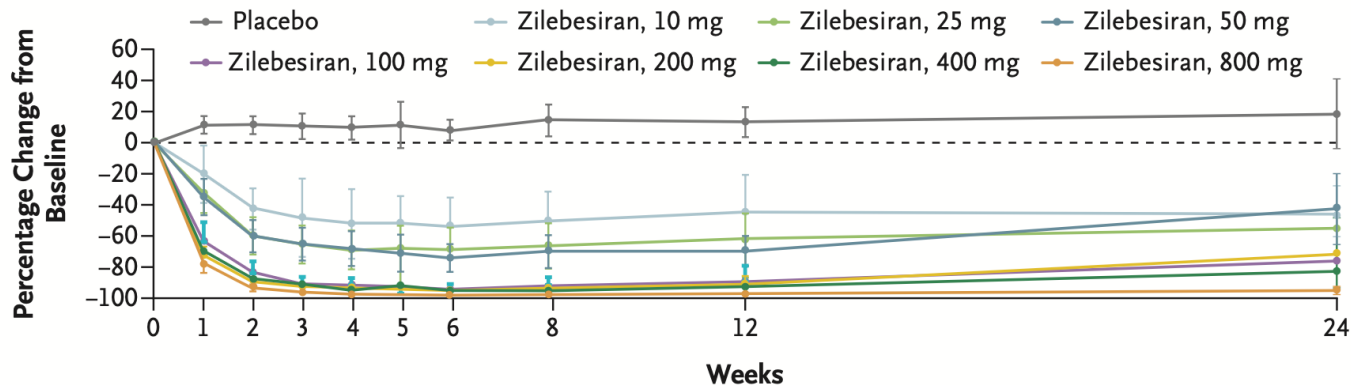
Background. Zilebesiran, an investigational RNA interference therapeutic agent with a prolonged duration of action, inhibits hepatic angiotensinogen synthesis.

Methods. In this phase 1 study, patients with hypertension were randomly assigned in a 2:1 ratio to receive either a single ascending subcutaneous dose of zilebesiran (10, 25, 50, 100, 200, 400, or 800 mg) or placebo and were followed for 24 weeks (Part A). Part B assessed the effect of the 800-mg dose of zilebesiran on BP under low- or high-salt diet conditions, and Part E the effect of that dose when coadministered with irbesartan. **End points included safety, pharmacokinetic and pharmacodynamic characteristics, and the change from baseline in systolic and diastolic BP, as measured by 24-hour ABPM.**



Decreases in SBP and DBP
after Single Doses of

A Part A

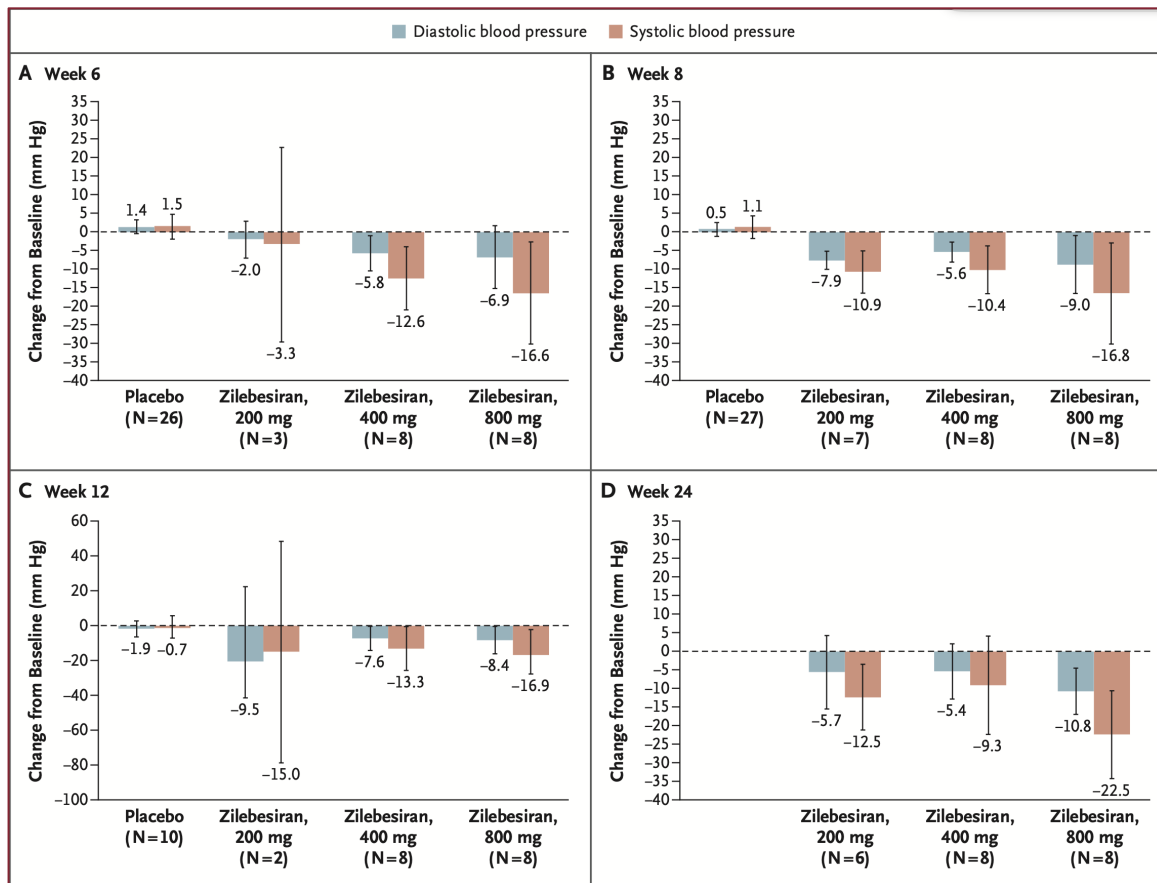


No. of Patients

Placebo	28	28	28	28	27	17	26	27	28	12
Zilebesiran, 10 mg	8	8	8	8	8	8	8	8	8	5
Zilebesiran, 25 mg	8	8	8	8	8	8	8	8	8	8
Zilebesiran, 50 mg	8	8	8	8	8	8	8	7	7	7
Zilebesiran, 100 mg	8	7	8	8	8	8	8	8	7	7
Zilebesiran, 200 mg	8	8	8	7	6	2	3	7	8	8
Zilebesiran, 400 mg	8	8	8	8	8	0	8	8	8	8
Zilebesiran, 800 mg	8	8	8	8	8	0	8	8	8	8



**Decreases in SBP and DBP after Single
Doses of Zilebesiran in Part A**

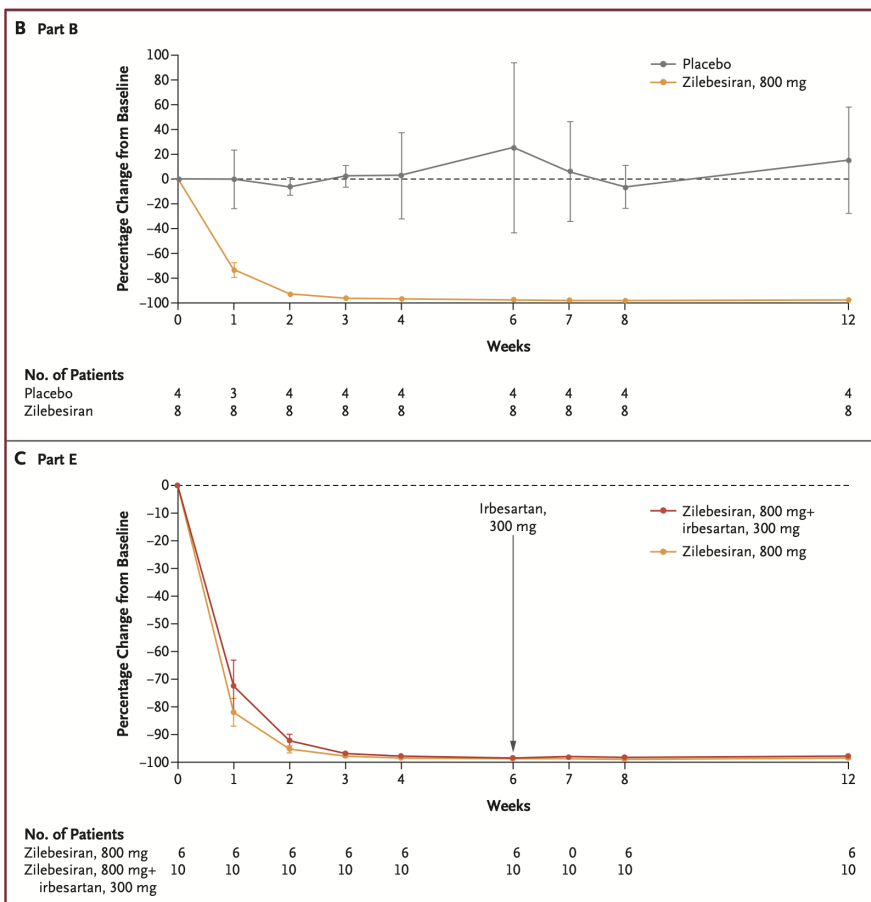




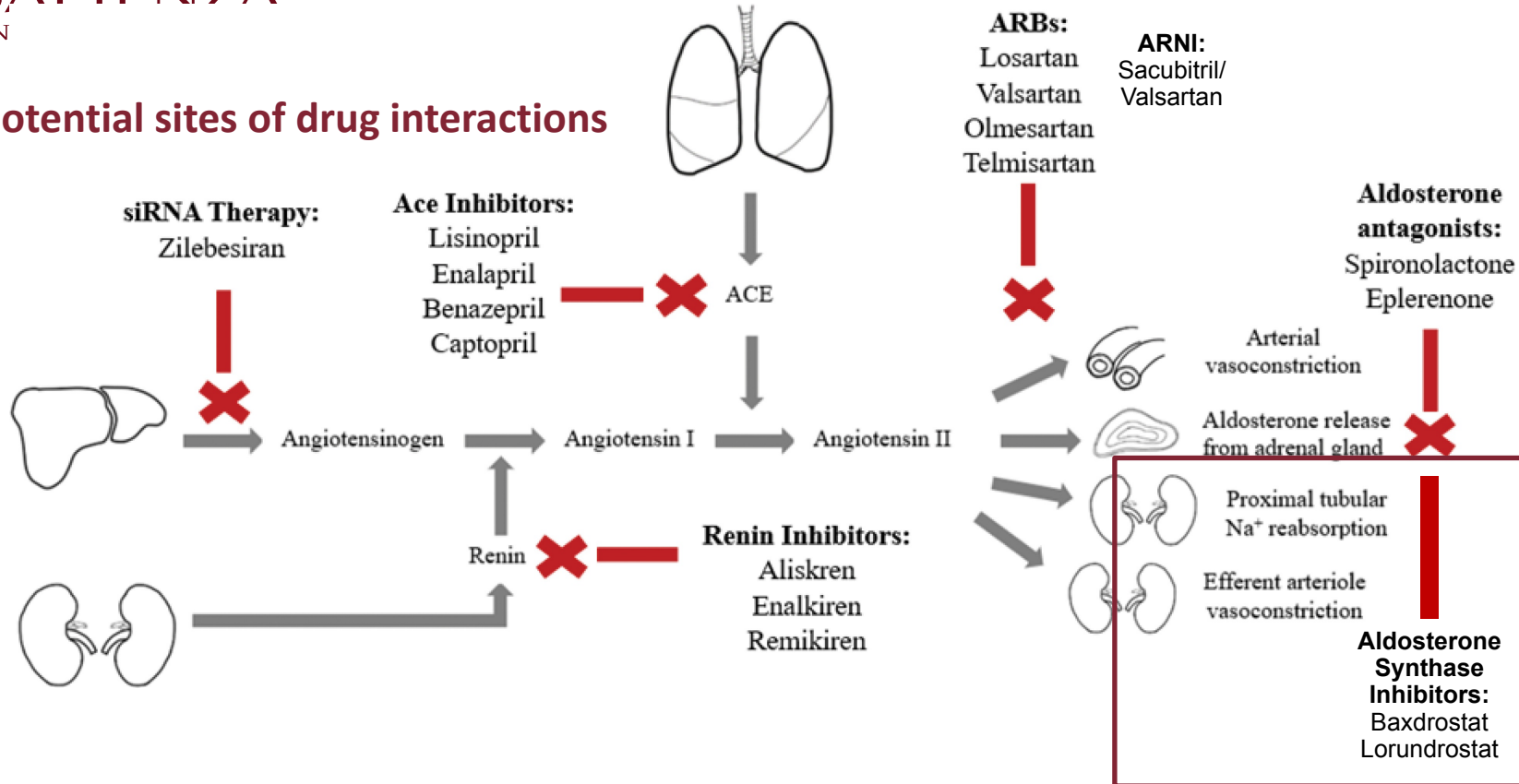
Change from Baseline in Mean Serum Angiotensinogen Level after Single Doses of Zilebesiran

Part B, after sequential administration of low- and high-salt diets, patients were randomly assigned to a single dose of 800-mg zilebesiran or placebo and rechallenged with the same dietary protocol from days 43 through 56 (Panel B).

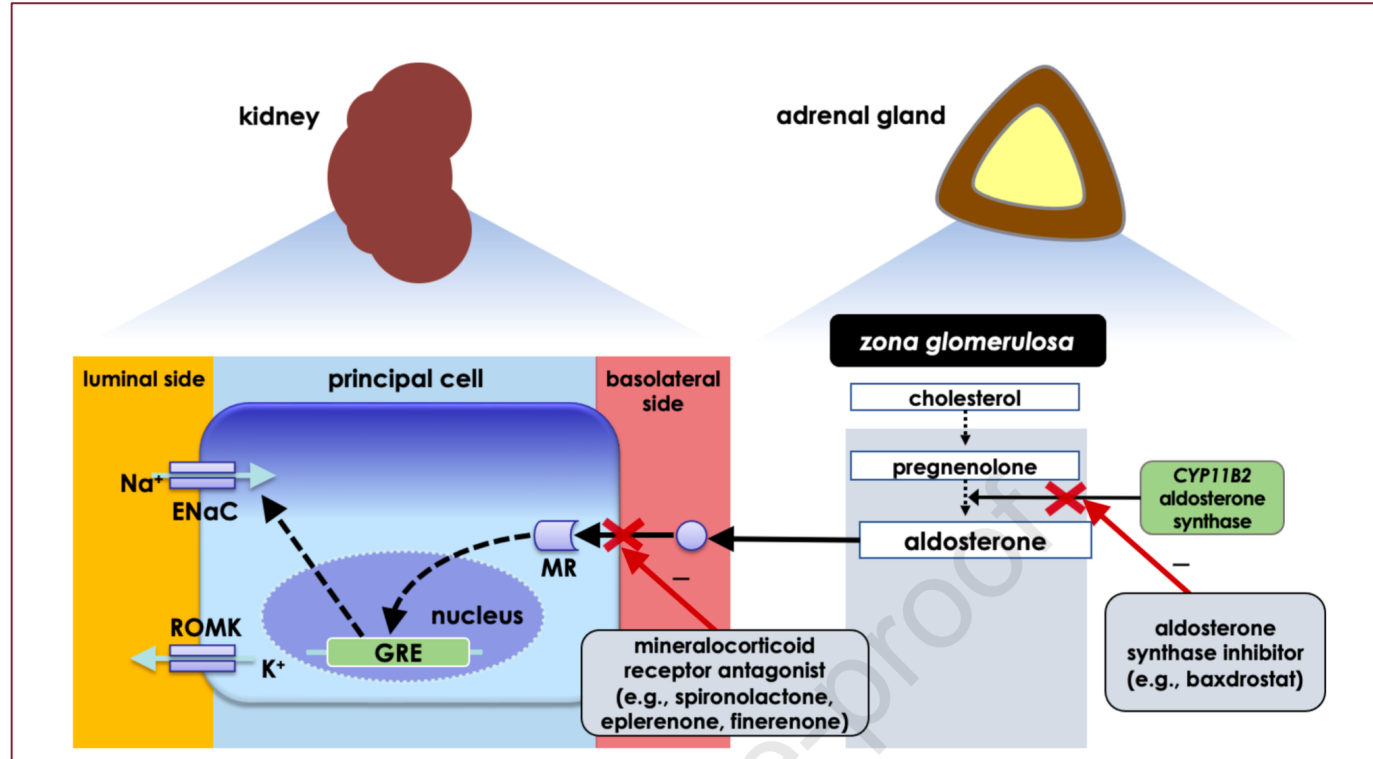
Part E was a single-group study with all the patients receiving a single 800-mg dose of zilebesiran (Panel C).



RAAS: potential sites of drug interactions



Mechanism of Actions: MRA vs ASI





Launch-HTN Trial (1)

Research

JAMA | Original Investigation

Lorundrostat in Participants With Uncontrolled Hypertension and Treatment-Resistant Hypertension The Launch-HTN Randomized Clinical Trial

Manish Saxena, MBBS; Luke Laffin, MD; Claudio Borghi, MD; Beatriz Fernandez Fernandez, MD, PhD; Jalal K. Ghali, MD; Branko Kopjar, MD, PhD; Krishna Polu, MD; Simon D. Roger, MD; B. T. Slingsby, MD, PhD; Frank Strutz, MD; Liffert Vogt, MD, PhD; Matthew R. Weir, MD; David Rodman, MD; for the Launch-HTN Investigators

ORIGINAL ARTICLE

Efficacy and Safety of Baxdrostat in Uncontrolled and Resistant Hypertension

John M. Flack, M.D.,¹ Michel Azizi, M.D.,^{2,3} Jenifer M. Brown, M.D.,⁴
Jamie P. Dwyer, M.D.,⁵ Jakub Fronczek, M.D.,⁶ Erika S.W. Jones, M.D.,⁷
Daniel S. Olsson, M.D.,⁸ Shira Perl, M.D.,⁹ Hirotaka Shibata, M.D., Ph.D.,¹⁰
Ji-Guang Wang, M.D.,¹¹ Ulrica Wilderäng, Ph.D.,⁸ Janet Wittes, Ph.D.,¹²
and Bryan Williams, M.D.,¹³ for the BaxHTN Investigators*

BaxHTN Trial (2)



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

FEBRUARY 2, 2023

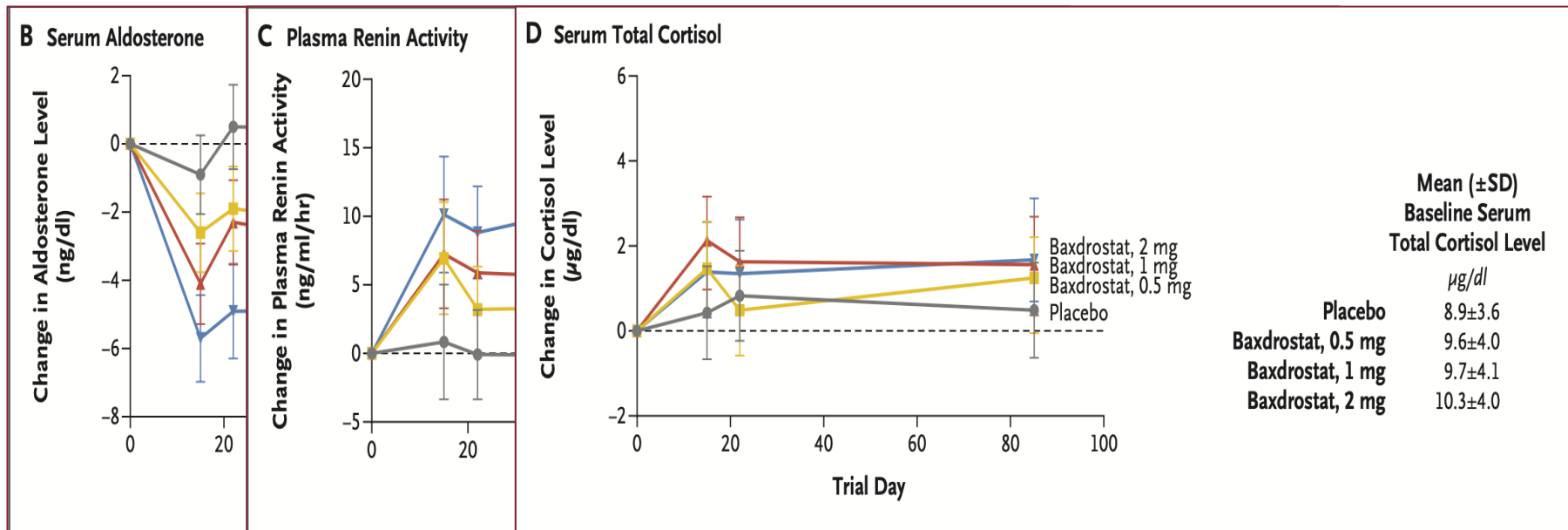
VOL. 388 NO. 5

Phase 2 Trial of Baxdrostat for Treatment-Resistant Hypertension

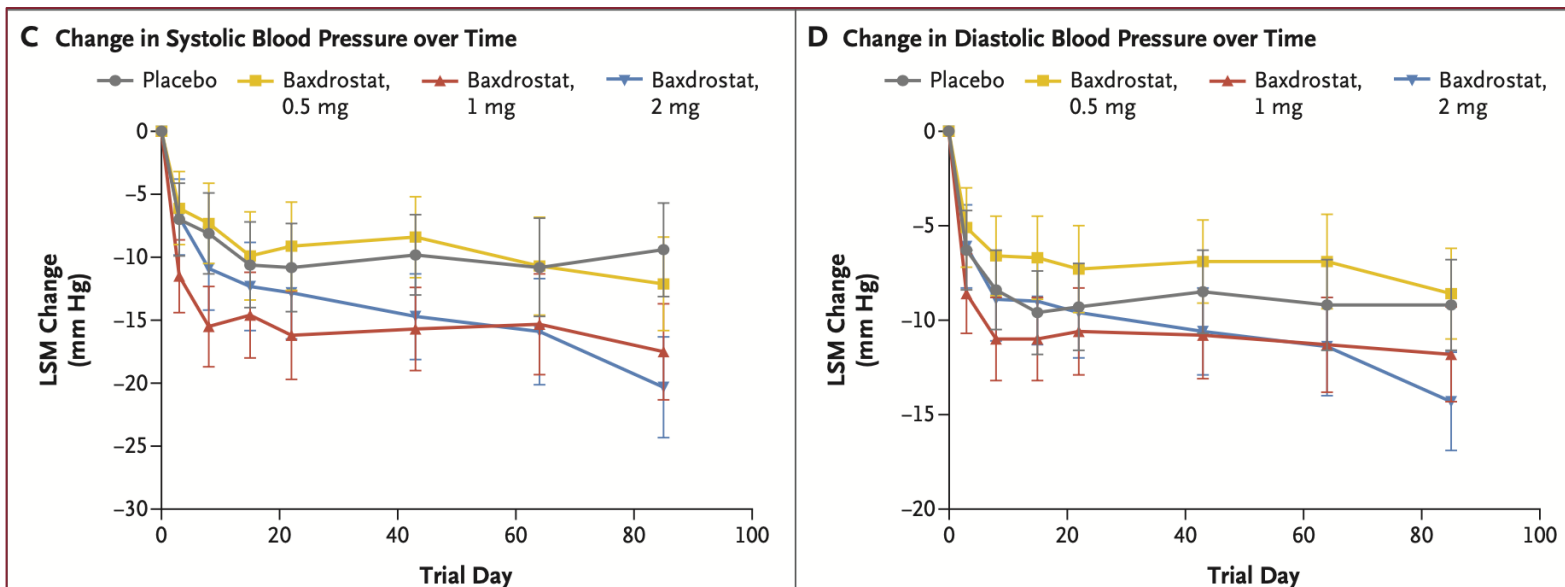
Mason W. Freeman, M.D., Yuan-Di Halvorsen, Ph.D., William Marshall, M.D., Mackenzie Pater, Ph.D.,
Jon Isaacsohn, M.D., Catherine Pearce, D.H.Sc., Brian Murphy, M.D., M.P.H., Nicholas Alp, M.D.,
Ajay Srivastava, M.D., Deepak L. Bhatt, M.D., M.P.H., and Morris J. Brown, M.D., for the BrigHTN Investigators*

METHODS. In this **multicenter, placebo-controlled trial**, we randomly assigned patients who had treatment-resistant hypertension, with BP $\geq$ 130/80 mmHg, and who were receiving stable doses of **at least three antihypertensive agents**, including a diuretic, to receive baxdrostat (0.5 mg, 1 mg, or 2 mg) once daily for 12 weeks or placebo. The primary endpoint was the change in SBP from baseline to week 12 in each baxdrostat group as compared with the placebo group.

Effects of Baxdrostat on Pharmacodynamic Measures

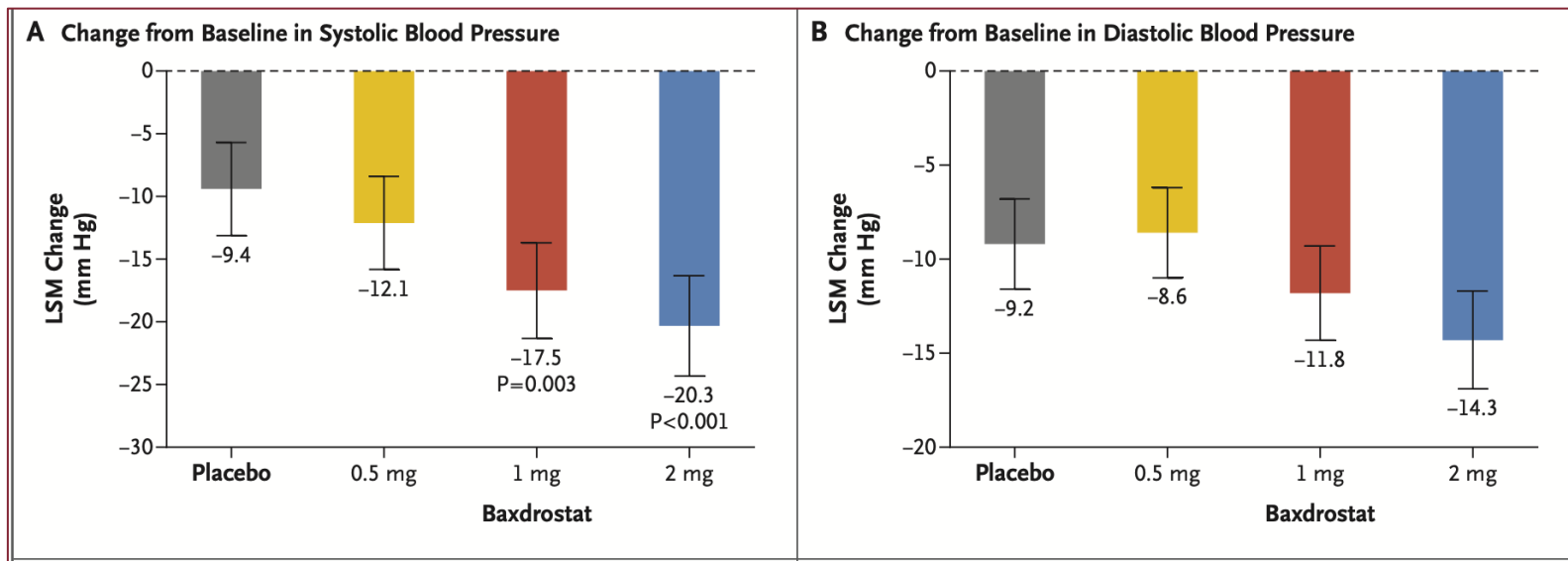


Change in Systolic and Diastolic Blood Pressure over Time



Baseline seated office systolic and diastolic BP: 147/87 mmHg

Change from Baseline in Systolic and Diastolic BP levels



Baseline seated office systolic and diastolic BP: 147/87 mmHg



ORIGINAL ARTICLE

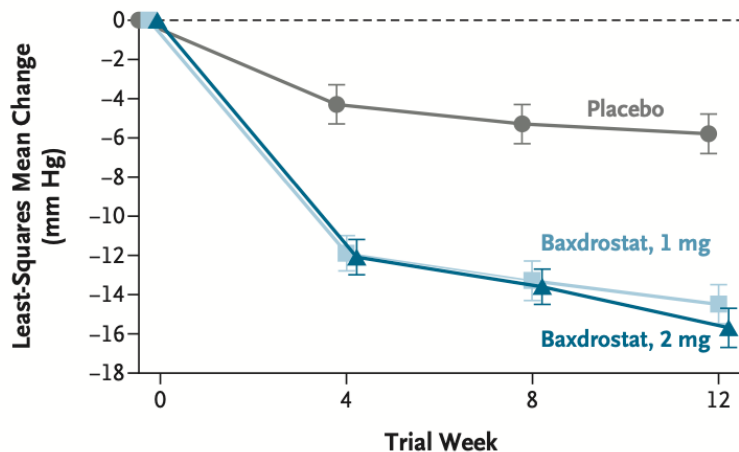
Efficacy and Safety of Baxdrostat in Uncontrolled and Resistant Hypertension

John M. Flack, M.D.,¹ Michel Azizi, M.D.,^{2,3} Jennifer M. Brown, M.D.,⁴
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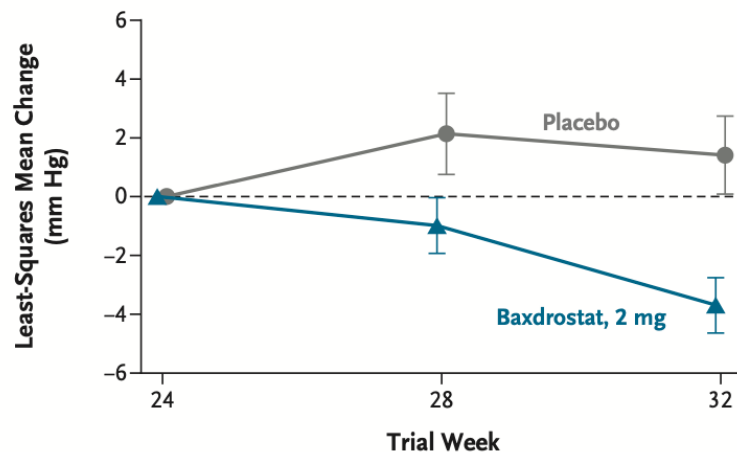
Methods. In this phase 3, multinational, double-blind, randomized, placebo-controlled trial, we recruited patients with a seated systolic blood pressure of between 140 mm Hg and less than 170 mmHg despite the receipt of stable treatment with two antihypertensive medications (**uncontrolled hypertension**) or three or more such medications (**resistant hypertension**), including a diuretic. After a 2-week placebo run-in period, we randomly assigned patients with a seated systolic blood pressure of 135 mm Hg or more in a 1:1:1 ratio to receive **baxdrostat** at a dose of **1 mg**, baxdrostat at a dose of **2 mg**, or **placebo** once daily for 12 weeks. The primary end point was the change in seated systolic blood pressure from baseline to week 12.

Change in Blood Pressure in Patients with Uncontrolled or Resistant Hypertension

A Change in Seated Systolic Blood Pressure from Baseline to Week 12

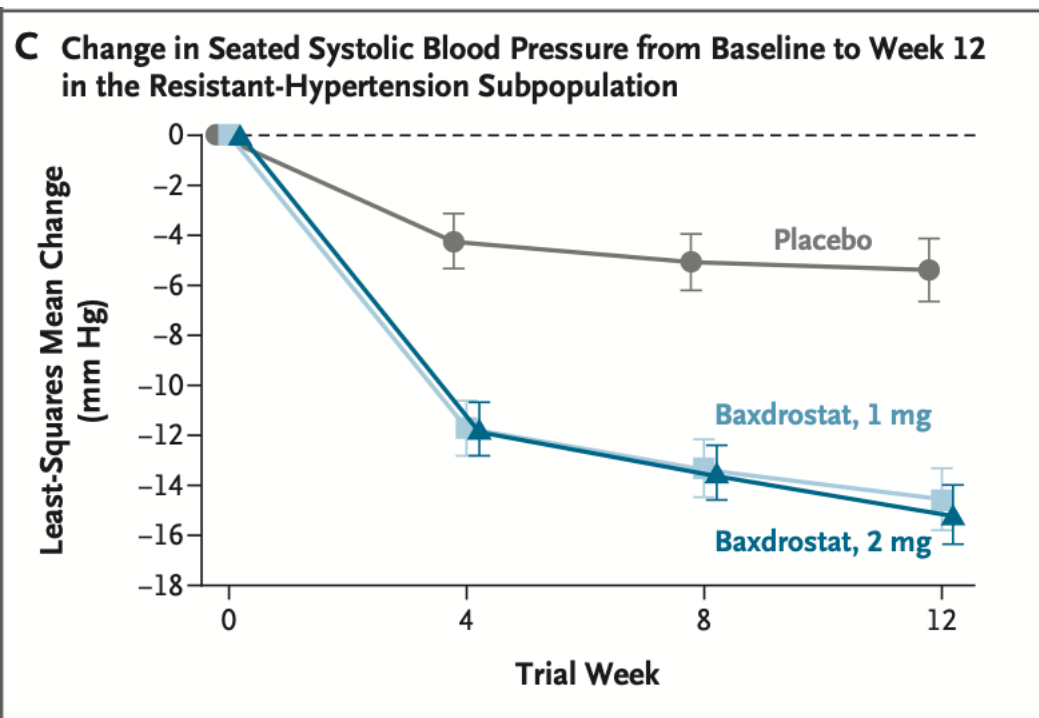


B Change in Seated Systolic Blood Pressure from Randomized-Withdrawal Period Baseline (week 24) to Week 32





Change in Systolic BP in Patients with
Resistant Hypertension





Hypertension Unit, Division of Cardiology, Sant'Andrea Hospital, Rome IT



Observational studies on patients with HTN:

- **STARK (STudy on ARterial hypertension Knowledge and control).** A single-center, retrospective-prospective real-world registry including >11,000 hypertensive outpatients. Primary aims were to assess BP control and hypertension phenotypes and their relationship with CV risk profile, HMOD markers, treatment patterns, and clinical outcomes.
- **STAR-RDN (Sant'Andrea Registry of Resistant Hypertension and Renal DeNervation).** A real-world observational registry evaluating the selection, treatment, and long-term outcomes of patients with RHT undergoing RDN at a tertiary hypertension referral center.

RCTs on patients with high-risk HTN or RHT:

- Multi-center, blinded, randomized, PaRallEl-group, Phase 3 study with aproClintan in Subjects with ResIstant HypertensiON (**ID-080A301** / PRECISION).
- A Randomized, Double-Blind, Placebo Controlled, Parallel Arm, Multicenter Phase 3 Study to Evaluate the Efficacy and Safety of Lorundrostat in Subjects with Uncontrolled and Resistant Hypertension (**MLS-101-301** and **MLS-101-901 OLE**).
- A Randomised, Double-Blind, Placebo-Controlled, Parallel Group Study to Assess the Efficacy and Safety of Baxdrostat in Participants with Uncontrolled Hypertension on Two or More Medications including Participants with Resistant Hypertension (**D6970C00002**).
- A Phase 3 Global, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of Zilebesiran in Addition to Standard of Care in Reducing Major Adverse Cardiovascular Events in Adult Patients with Hypertension Not Adequately Controlled and With Either Established Cardiovascular Disease or High Risk for Cardiovascular Disease (**ALN-AGT01-008**). *Ongoing*.
- A Pivotal, Prospective, Multicenter, 2:1 Randomized, Double Blind, Controlled Study Comparing the TheRapeutic IntraVascular Ultrasound (TIVUS™) REnal Denervation System vs. Sham for the Adjunctive Treatment of Hypertension (**THRIVE**). *Ongoing*.



Future trials with SGLT2i/ASI combination on HTN, HF, CKD

Phase III Study Investigating Heart Failure and Cardiovascular Death With **Baxdrostat** in Combination With **Dapagliflozin** (Prevent-HF)

ClinicalTrials.gov ID ⓘ NCT06677060

Sponsor ⓘ AstraZeneca

Information provided by ⓘ AstraZeneca (Responsible Party)

Last Update Posted ⓘ 2026-05-18

A Phase IIb Study to Evaluate the Effect of **Dapagliflozin** in Combination With **Baxdrostat** Compared With **Baxdrostat** on Albuminuria in Participants With Chronic Kidney Disease and High Blood Pressure. (BaxDuo-Baltic)

ClinicalTrials.gov ID ⓘ NCT07222917

Sponsor ⓘ AstraZeneca

Information provided by ⓘ AstraZeneca (Responsible Party)

Last Update Posted ⓘ 2026-05-18

EASi-PROTKT™ - A Study to Test **Vicadrostat** (BI 690517) Taken Together With **Empagliflozin** in People With Type 2 Diabetes, High Blood Pressure, and Cardiovascular Disease

ClinicalTrials.gov ID ⓘ NCT07064473

Sponsor ⓘ Boehringer Ingelheim

Information provided by ⓘ Boehringer Ingelheim (Responsible Party)

Last Update Posted ⓘ 2026-06-10

EASi-KIDNEY™ (The Studies of Heart & Kidney Protection With BI 690517 in **Combination With Empagliflozin**)

ClinicalTrials.gov ID ⓘ NCT06531824

Sponsor ⓘ Boehringer Ingelheim

Information provided by ⓘ Boehringer Ingelheim (Responsible Party)

Last Update Posted ⓘ 2026-06-11

IPERTENSIONE ARTERIOSA: UPDATE 2026

**Nuovi scenari terapeutici farmacologici nel controllo
dell'ipertensione arteriosa resistente**

Grazie per la Vostra Attenzione

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