

Hypertension



The Leading Modifiable Risk Factor for Early Death and Disability¹

Uncontrolled Hypertension and Health Risks



For every 5 mmHg SBP decrease



There is a **10% reduction** in the risk of **cardiovascular events** (e.g., stroke, myocardial infarction, renal failure)^{2,3}



The more (≥ 3) antihypertensive agents



The greater the risk for a patient with uncontrolled hypertension of **CVD, myocardial infarction, or stroke**^{a,4}



Despite availability of antihypertensive agents



Patients still have **uncontrolled hypertension** ($\geq 130/80$ mmHg) despite **receiving multiple medications**^{b,5}

Patients uncontrolled on Antihypertensives (%) per Number of Medications

59.2%



58.3%



61.2%



ACE inhibitor, ARB, CCB, and/or diuretics



There is a **need** for further blood pressure control by targeting **additional pathways**⁶

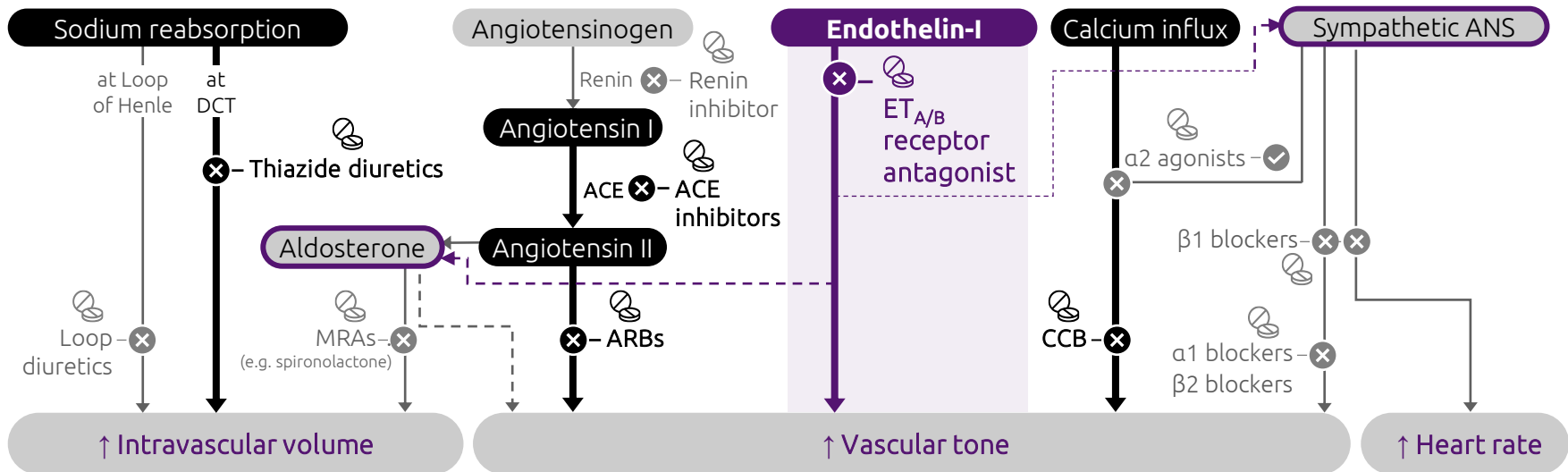
^aData from the Reduction of Atherothrombosis for Continued Health (REACH) registry including 53,530 hypertensive patients; ^bRetrospective analysis of the Optum® Electronic Health Record Database evaluated patients ≥ 18 years of age with a diagnosis of hypertension (N=207,705) classified based on the number of prescribed AHT medication classes (3, 4, or ≥ 5)

ACE, angiotensin converting enzyme; **ARB**, angiotensin receptor blocker; **CCB**, calcium channel blockers; **CVD**, cardiovascular disease; **SBP**, systolic blood pressure.

References: **1.** Institute for Health Metrics and Evaluation (IHME). *Findings from the Global Burden of Disease Study 2017*. Seattle, WA: IHME, 2018. **2.** Blood Pressure Lowering Treatment Trialists' Collaboration. *Lancet*. 2021;397(10285):1625–1636. **3.** Lewington S, et al. *Lancet*. 2002;360(9349):1903–13. **4.** Kumbhani DJ, et al. *Eur Heart J*. 2013;34(16):1204–1214. **5.** Ammann EM, et al. Characteristics, management, and blood pressure control in patients with apparent resistant hypertension in the US. *Heliyon*. 2023;9(2):e13258. **6.** Nejad SH et al. *Curr Hypertens Rep*. 2023;25(10):343–352.

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Complementary but Different Management Approaches¹



The **endothelin system** is a pathway that can provide complementary blood pressure control for patients with uncontrolled hypertension

ACE, angiotensin converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; CCB, calcium channel blockers; DCT, distal convoluted tubule; ET, endothelin; MRA, mineralocorticoid receptor antagonist; SBP, systolic blood pressure.

References: 1. Ojha U, et al. *Am J Cardiovasc Drugs*. 2022;22(3):271-285. 2. Whelton PK, et al. *Hypertension*. 2018;71:e13-e115.