PACE

Pharmaceutical Assistance
Contract for the Elderly

Alosa Health

Balanced information for better care

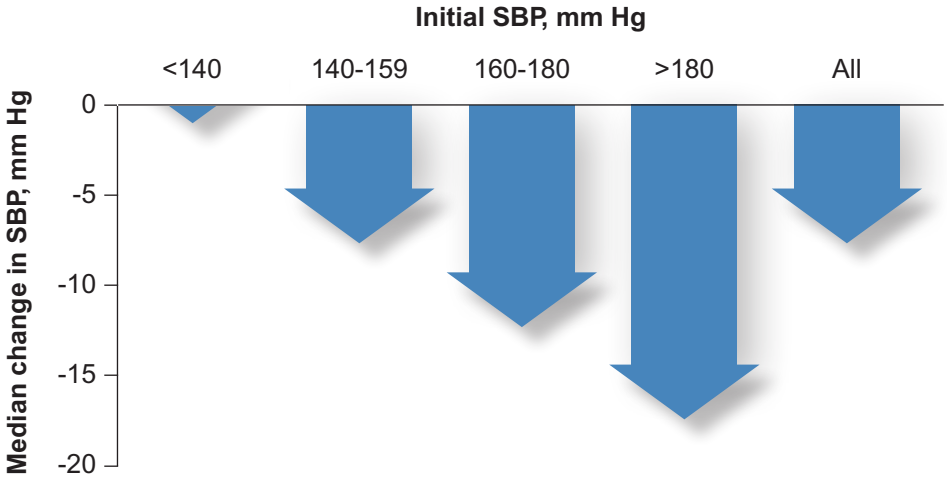
Don't let the pressure get to you:

An update on the changing recommendations for treating hypertension

New trial data and guidelines have made hypertension care more complex; the following is an evidence-based synthesis of the new data.

Ensure accurate BP measurement: Check pressure *twice* during the same visit

FIGURE 1. An evaluation of nearly 40,000 patients found that measuring BP a second time in the same visit resulted in lower readings. Nearly 50% of patients who had a systolic blood pressure (SBP) of 140-159 mm Hg at the beginning of the visit had an SBP <140 mm Hg in the same visit.[1]



Median drop in blood pressure was 8 mm Hg, equivalent to the impact of starting one hypertensive medication.

Educate staff on techniques for obtaining accurate BP readings.

- See **AlosaHealth.org/Hypertension** for office cards regarding accurate BP assessment.

Use home BP measurement to diagnose 'white coat hypertension' and monitor response to treatment.

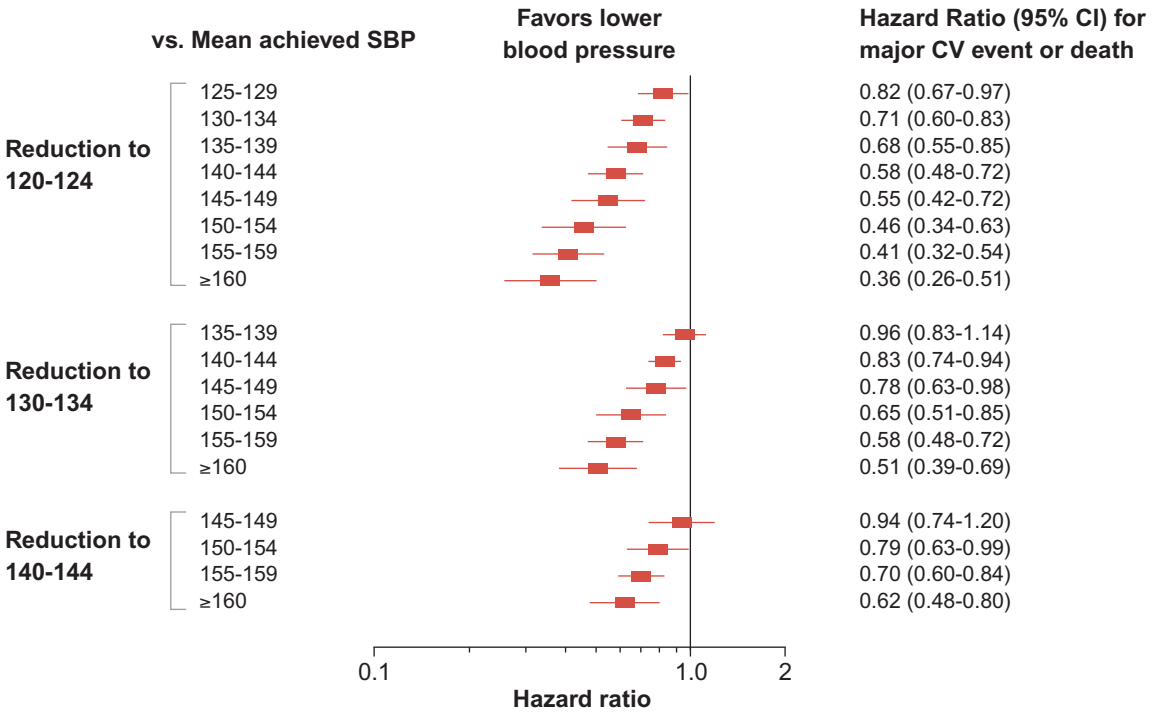
- Recommend patients record 3 or 4 BP measurements each day.

Continuous automated ambulatory BP monitoring is the most accurate predictor of CV events,[2] but it can be difficult and costly to arrange.

Lowering BP reduces CV events across a wide range of pressures

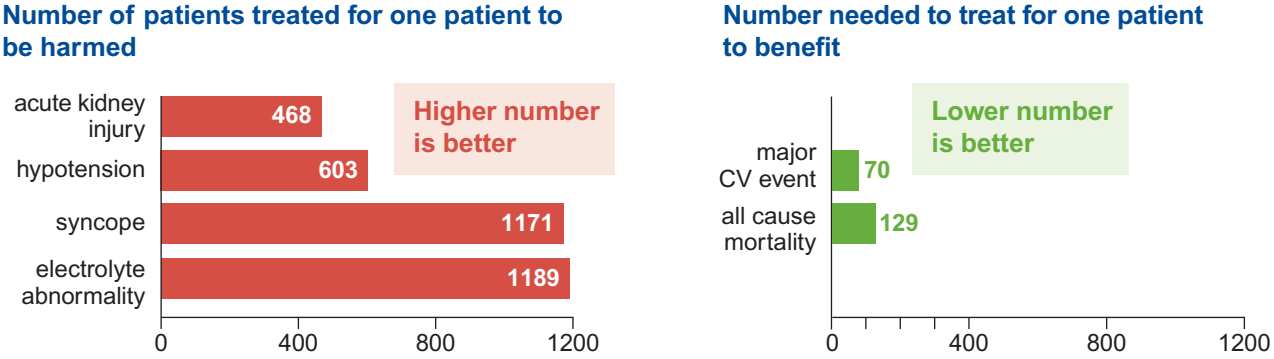
The benefit is even greater in older patients.[3]

FIGURE 2. A meta-analysis of 42 randomized trials involving 144,220 patients shows that CV benefits occur with any BP reduction, and are greater with lower achieved BPs.[4]



The benefit of achieving lower BP outweighs the risk of harm.

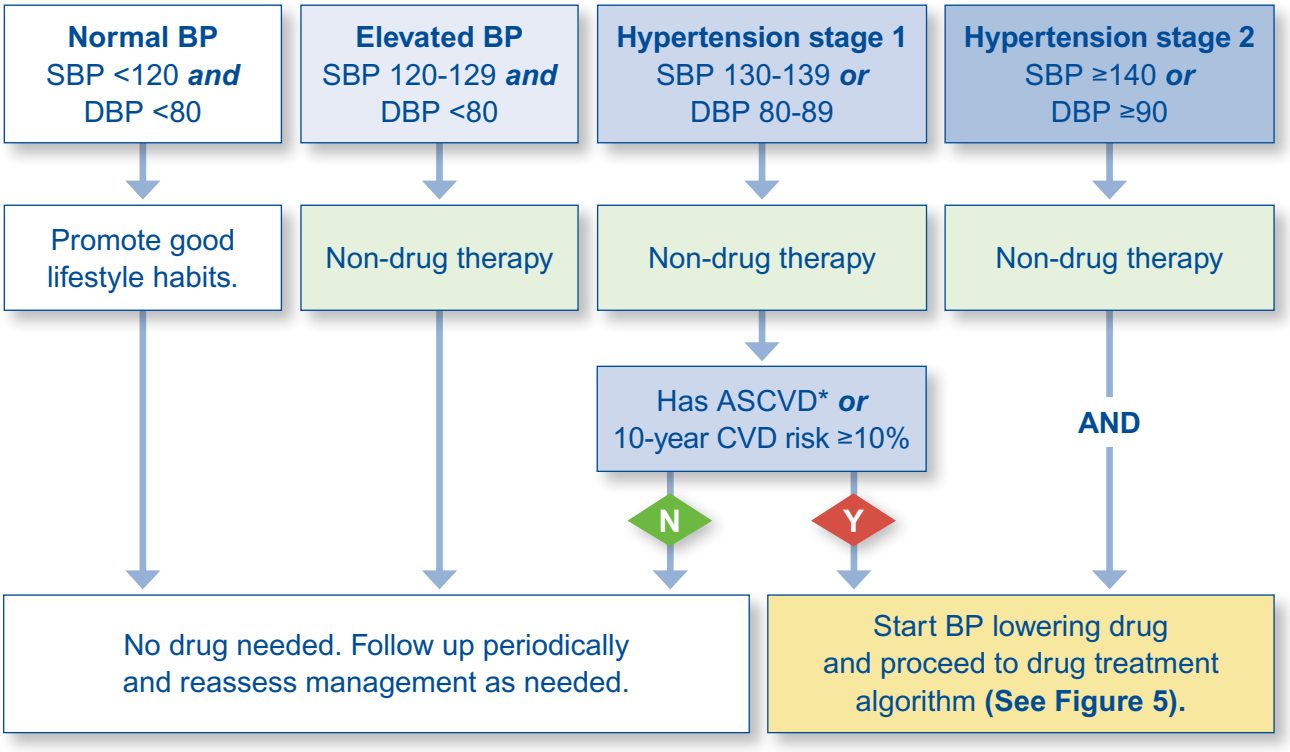
FIGURE 3. In a population of patients treated to an SBP goal of <130, far more will benefit from prevented CV events or death than will have side effects.[5]



The rate of injurious falls was no higher in patients with an SBP <130 vs. those with a higher SBP.

Evolving information on the management of high blood pressure: putting it all together

FIGURE 4. The 2017 American College of Cardiology and American Heart Association (ACC/AHA) guideline BP categories, a practical guide for when to start treatment, and treatment goals[6]



*ASCVD (atherosclerotic cardiovascular disease) includes acute coronary syndrome, myocardial infarction, angina, revascularization, stroke, TIA, or peripheral arterial disease.

- **All patients requiring management should achieve an SBP <130,** and a DBP goal <80 in adults less than 60 years of age.
- For patients whose management requires assessment of 10-year CVD risk, continue to reassess at follow-up visits.

Calculate cardiovascular disease risk using the ASCVD risk calculator: www.cvriskcalculator.com OR tools.acc.org/ASCVD-Risk-Estimator-Plus

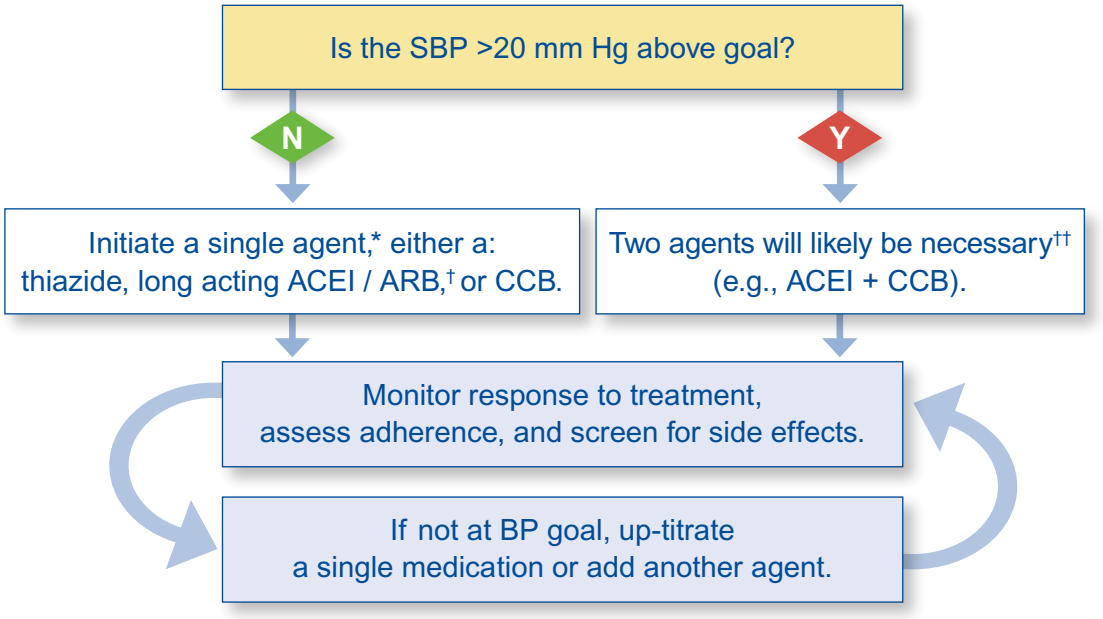
Lifestyle interventions are the foundation of any BP lowering regimen

Non-drug approaches such as a low sodium, heart healthy, or DASH diet; aerobic exercise as tolerated; and weight loss are key components of any treatment plan.

All four major anti-hypertensive drug classes are equally good choices for patients requiring drug therapy: thiazide diuretics, angiotensin converting enzyme inhibitors (ACEIs)/angiotensin receptor blockers (ARBs), or calcium channel blockers (CCBs).[7]

Achieving the BP goal is more important than the path there.

FIGURE 5. Algorithm for initiating and intensifying drug treatment in eligible patients

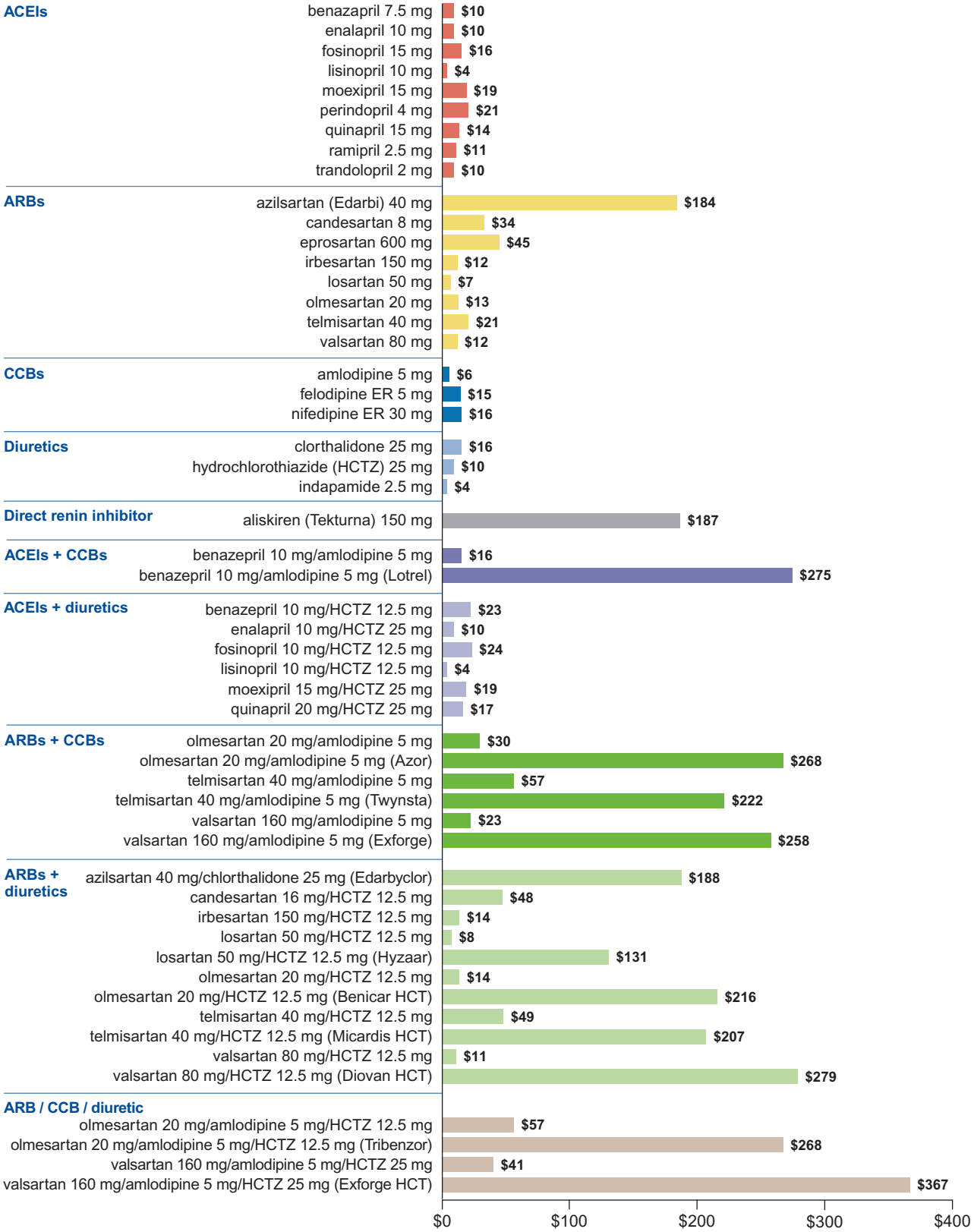


* For African Americans, initiate a thiazide or CCB.
† Combining an ACEI and an ARB confers no additional benefit and may increase adverse events.
†† For older patients, start one medication and intensify therapy at the first follow-up visit.

While beta-blockers are indicated to prevent CV outcomes in patients with ASCVD, they are no longer first-line drugs for the management of hypertension because they are less effective than other drug classes in preventing stroke.[7]

Costs

FIGURE 6. Price of a 30-day supply of drugs commonly used to treat hypertension



Prices from goodrx.com, April 2018. Listed doses are based on Defined Daily Doses by the World Health Organization, and should not be used for dosing in all patients. All prices shown are for generic products unless otherwise noted. These prices are a guide; patient costs may be subject to copays, rebates, and other incentives.

Key messages

- Make sure the BP measurement is taken accurately, and more than once during a visit.
- Behavioral interventions, especially reducing sodium intake, form the foundation of BP management.
- Set 130/80 mm Hg as the BP goal for most patients, based on a synthesis of recent data and guidelines.
- Achieving the BP goal is more important than the choice of drug within the recommended classes.
- Reinforce a reduced salt diet and lifestyle modifications throughout treatment.
- Regularly assess response to treatment: screen for side effects, ask about adherence, and intensify treatment as needed to achieve a patient's BP goal.

Visit AlosaHealth.org/Hypertension
for more information and resources about BP and its management for clinicians and patients.

References:

(1) Einstadter D, Bolen SD, Misak JE, Bar-Shain DS, Cebul RD. Association of Repeated Measurements With Blood Pressure Control in Primary Care. *JAMA Intern Med*. 2018.

(2) Banegas JR, Ruilope LM, de la Sierra A, et al. Relationship between Clinic and Ambulatory Blood-Pressure Measurements and Mortality. *N Engl J Med*. 2018;378(16):1509-1520.

(3) Williamson JD, Supiano MA, Applegate WB, et al. Intensive vs Standard Blood Pressure Control and Cardiovascular Disease Outcomes in Adults Aged ≥75 Years: A Randomized Clinical Trial. *JAMA*. 2016;315(24):2673-2682.

(4) Bundy JD, Li C, Stuchlik P, et al. Systolic Blood Pressure Reduction and Risk of Cardiovascular Disease and Mortality: A Systematic Review and Network Meta-analysis. *JAMA Cardiol*. 2017;2(7):775-781.

(5) Bundy JD, Mills KT, Chen J, Li C, Greenland P, He J. Estimating the Association of the 2017 and 2014 Hypertension Guidelines With Cardiovascular Events and Deaths in US Adults: An Analysis of National Data. *JAMA Cardiol*. 2018.

(6) Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2018;71(19):e127-e248.

(7) Law MR, Morris JK, Wald NJ. Use of blood pressure lowering drugs in the prevention of cardiovascular disease: meta-analysis of 147 randomised trials in the context of expectations from prospective epidemiological studies. *BMJ*. 2009;338:b1665.

About this publication

These are general recommendations only; specific clinical decisions should be made by the treating physician based on an individual patient's clinical condition. More detailed information on this topic is provided in a longer evidence document at AlosaHealth.org.

IDIS Independent Drug Information Service

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Alosa Health

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