

BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

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HYPERTENSION

New hypertension guidelines will reignite controversy about appropriate BP goals and when to start treatment.

We're used to thinking of a BP goal of less than 140/90 mmHg for most patients. In 2013, JNC 8 actually relaxed the goal to less than 150/90 for patients age 60 or older withOUT diabetes or kidney disease.

Now the new Am College of Cardiology and Am Heart Assn guidelines recommend a stricter goal of less than 130/80 across the board...mainly due to recent evidence that a lower target may further lower CV risk. And they recommend using the ACC/AHA risk estimator to evaluate CV risk.

See a guideline summary below...and use your clinical judgment.

Blood Pressure (mmHg)	ACC/AHA Guideline Treatment Recommendations
Normal: < 120/80	Maintain healthy lifestyle habits
Elevated: 120 – 129/< 80	Encourage lifestyle changes Check for meds that can increase BP (NSAIDs, SNRIs, estrogen, etc)
Stage 1 hypertension: 130 – 139/80 – 89	Implement lifestyle changes alone if ACC/AHA 10-year CV risk < 10% Use BP meds for patients with CV disease, diabetes, chronic kidney disease, or 10-year CV risk ≥ 10%
Stage 2 hypertension: ≥ 140/90	Reinforce lifestyle changes and use BP meds

Tailor BP goals to your patient. Many will do well with a goal of less than 130/80...but this may not be practical or safe for others.

For example, don't push for this goal if it's not tolerated in frail patients...or in those with orthostatic hypotension, high fall risk, etc. In this case, consider aiming for less than 140/90...or even below 150/90.

Focus on treatment for the highest-risk patients. These are patients with stage 2 hypertension...or stage 1 plus CV disease, diabetes, chronic kidney disease, or multiple risk factors.

Recommend treating these patients with BP meds shown to improve outcomes...thiazides, ACEIs, ARBs, or calcium channel blockers. Encourage home BP monitoring to help evaluate BP control and minimize overtreatment.

Emphasize lifestyle changes alone for lower-risk patients with stage 1 hypertension...and suggest meds if BP or CV risk goes up.

See our chart, *Treatment of Hypertension*, for the latest recommendations. And listen to *PL Voices* for a terrific, practical discussion with guideline authors about managing hypertension.

(For more on this topic, see Clinical Resource #340101 at PharmacistsLetter.com.)

Primary Reference – Part 2 of: Reboussin DM, Allen NB, Griswold ME, et al. Systematic review for the 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* 2017 Nov 7. doi: 10.1016/j.jacc.2017.11.004.

See LEADER NOTES for answers to discussion questions.

DISCUSSION QUESTIONS

OVERVIEW OF CURRENT THERAPY

1. How do organizations' blood pressure goals differ? What is the impact of blood pressure goals on outcomes?

ANALYSIS OF NEW STUDY

2. What type of study was this?
3. What was the search strategy for identification of information?
4. How were studies selected for inclusion in the meta-analysis?
5. How were data extracted and analyzed from selected studies?

See [LEADER NOTES](#) for answers to discussion questions.

6. How many studies were identified? What was the patient population?

7. What were the results of the meta-analysis?

8. What were the strengths and limitations of the meta-analysis?

9. Were the results expressed in terms we care about and can use?

HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

10. Do the results change your practice? How?

See LEADER NOTES for answers to discussion questions.

APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

G.S. is a new patient establishing with you today in clinic. G.S. is a 62-year-old female with a medical history significant for type 2 diabetes and hypertension. G.S. has brought in her medications along with recent lab results from her prior PCP. In clinic, G.S.'s vitals are BP 172/89 mmHg, HR 73, RR 14, and BMI 28. She reports compliance with her medication regimen of indapamide 2.5 mg daily, atorvastatin 80mg daily, and metformin 1,000mg twice daily. You review her recent labs from two weeks ago and note HgbA1C 6.8%, potassium 3.6 mEq/L, serum creatinine 1.0 mg/dL, and urine albumin-to-creatinine ratio (UACR) 230 mcg/mg. She denies any current complaints and just needs medication refills today.

11. What is G.S.'s goal blood pressure? What treatment changes should you consider for G.S. today?

You discuss G.S.'s elevated UACR, and its link with chronic kidney disease. Due to G.S.'s elevated UACR, you start her on lisinopril 20 mg daily and gradually titrate up over the next month to 40mg daily. The next month, her BP is still uncontrolled and you start amlodipine 2.5 mg, titrating up to 10 mg daily.

12. Should G.S. monitor her blood pressure at home?

G.S. is back in clinic today to review recent labs and discuss her BP control. She denies any new complaints. Her repeat BMP is normal. Today her BP is 155/70 mmHg. Her home BP monitoring shows readings generally between 150 to 160 mmHg systolic, and 65 to 75 mmHg diastolic. It does not reveal significant lows that might reflect post-dose hypotension.

13. How is G.S.'s hypertension classified? What medication changes might you consider?

G.S. confirms that she is adherent with her BP medication regimen, and that she isn't taking additional medications that may increase her blood pressure. You suggest adding spironolactone 12.5 mg daily to help lower her blood pressure, and G.S. agrees. You discuss that adding spironolactone may increase her potassium level, and recommend that she have her labs checked about a week after starting it, one month later, and about every three months while it's continued.

See [LEADER NOTES](#) for answers to discussion questions.

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Additional Pharmacist's Letter Resources available at PharmacistsLetter.com

PL Voices, Identification and Treatment of Hypertension. *Pharmacist's Letter/Prescriber's Letter.* January 2018.

Chart, Treatment of Hypertension. *Pharmacist's Letter/Prescriber's Letter.* January 2018.

PL Voices, Measuring and Monitoring Blood Pressure. *Pharmacist's Letter/Prescriber's Letter.* January 2018.

Patient Education Handout, How to Check Your Blood Pressure. *Pharmacist's Letter/Prescriber's Letter.* January 2018.

PL Voices, How to Handle Medications That Increase Blood Pressure. *Pharmacist's Letter/Prescriber's Letter.* September 2017.

Chart, Meds That Can Increase Blood Pressure. *Pharmacist's Letter/Prescriber's Letter.* September 2017.

Chart, Comparison of Commonly Used Diuretics. *Pharmacist's Letter/Prescriber's Letter.* December 2016.

Chart, ACE Inhibitor Antihypertensive Dose Comparison. *Pharmacist's Letter/Prescriber's Letter.* October 2016.

Chart, Comparison of Angiotensin Receptor Blockers. *Pharmacist's Letter/Prescriber's Letter.* October 2016.

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