Take 3 – Practical Practice Pointers© February 4, 2019 Edition

HTN Edition: BP Targets, Mythbuster Re-run, Management Tip Sheet

Take 3 Re-Run: The 2017 Joint Guideline from the AAFP and the ACP

1) Treatment of HTN in Adults ≥ 60

The overall prevalence of HTN among US adults is 29%, and it increases to 65% in adults aged ≥ 60. In 2017, the American College of Physicians (ACP) and the American Academy of Family Physicians (AAFP) released a joint practice guideline on systolic blood pressure targets for people aged ≥ 60 with HTN. **Note** that the authors could not find enough evidence to make recommendations regarding diastolic blood pressure targets. Recommendations included:

Recommendation 1: Initiate treatment in adults aged ≥ 60 with systolic blood pressure persistently at or above 150 to achieve a target systolic blood pressure of < 150 to reduce the risk for mortality, stroke, and cardiac events. (Grade: strong recommendation, high-quality evidence).

Recommendation 2: Consider initiating or intensifying pharmacologic treatment in adults aged ≥ 60 with a history of stroke or transient ischemic attack to achieve a target systolic blood pressure of < 140 to reduce the risk for recurrent stroke. (Grade: weak recommendation, moderate-quality evidence).

Recommendation 3: Consider initiating or intensifying pharmacologic treatment in some adults aged ≥ 60 at high cardiovascular risk, based on individualized assessment, to achieve a target systolic blood pressure of < 140 to reduce the risk for stroke or cardiac events. (Grade: weak recommendation, low-quality evidence).

For all of the recommendations, the ACP and AAFP recommend that clinicians select the treatment goals for adults aged ≥ 60 years based on a periodic discussion of the benefits and harms of specific blood pressure targets with the patient.

My Comment:
I am revisiting this guideline as there still appears to be great confusion among both colleagues and patients regarding the present recommendations. This guideline was in many ways a re-affirmation of the support from both the AAFP and the ACP for the JNC8 HTN guideline, and is in line with our Family and Community Medicine scorecard metrics. It is important to note that in December of 2017, the AAFP specifically announced that it did NOT support the 2017 ACC/AHA HTN Guideline (see references) which has created potential confusion for both clinicians and patients regarding "competing guidelines." Neither are "wrong" per se. It is a matter of a difference of perspective and interpretation/extrapolation of the data.

One shortcoming of the ACC/AHA guideline is that it does not make clear what to do if lifestyle changes do not achieve the target BP of < 130/80 over a 3-6 month period for those with lower CVD risk, other than stating that such a BP target "may be reasonable" and "…should be based on an informed discussion with patients, with a consideration of potential benefits and harms." This is not a particularly strong endorsement. The risk

for hypotension from more aggressive BP control using medications is quite real, and in particular for older patients.

Both guidelines agree that the evidence is not strong for diastolic BP targets (all "C-Expert Opinion" in the ACC/AHA guideline, no recommendation from the ACP/AAFP guideline), yet the ACC/AHA still rated this recommendation as "Strong."

So what are we on the front lines of healthcare to do? Here are my thoughts:

- There is unanimity that lifestyle interventions are of vital importance (for everyone!) and can have significant impact on blood pressure. A national campaign to emphasize "lifestyle as medicine" is long overdue.
- There is agreement that customizing/contextualizing care for patients with HTN (and all patients) is essential. For some patients, lowering blood pressure beyond the "target" range may be appropriate.
- There are benefits and risks as BP is lowered, and in particular below 140/90 and in particular based on overall cardiac risk. This needs to be acknowledged, discussed with patients, and incorporated into the customized care plan for them.
- Regardless of target thresholds, the most impact will still occur by helping those with higher levels of BP achieve better control. Let's vow to use all of our resources, including team-based care and electronic means, to help these patients achieve better BP control (see Pointer #3).
- Having patients involved in their care through home BP monitoring and with more frequent adjustments of therapy is vital to achieve and maintain target control.
- On a personal note, if I had hypertension (which I don't, even by the "new definition") and an ASCVD risk of $\geq$ 10 % (which I don't), I would be targeting for a blood pressure of < 130/80, if this could be done safely, and, of course, after consultation with my personal physician (more on this in next week's Take 3).

References:

- Qaseem M, et al. Pharmacologic Treatment of HTN in Adults Aged 60 Years or Older to Higher Versus Lower Blood Pressure Targets: A Clinical Practice Guideline From the ACP and the AAFP. Ann Intern Med. March 21, 2017;166(6):430-437. Guideline
- AAFP Does Not Support ACC/AHA HTN Guideline: Article
- Whelton PK, et al. 2017 ACC/AHA Guideline for the Prevention, Detection, Evaluation, and Management of High BP in Adults. J Am Coll Cardiol and HTN 2017. Guideline

From the Literature and Medical "Myth Busters"

2) Treating HTN: Misconceptions and Facts

Despite heightened awareness, prevalent evidence-based guidelines and protocols, access to tools such as home measurement, and multiple affordable medications, the overall treatment of HTN remains sub-optimal. Several misconceptions about treating HTN continue to persist among clinicians. Some of the misconceptions include:

Myth #1: HCTZ is the most useful and versatile thiazide diuretic and should be used as first line therapy.

Fact: When a thiazide is indicated, chlorthalidone and indapamide are preferred based on their use in the SHEP and ALLHAT studies. Interestingly, HCTZ at the usual dose of 12.5-25 mg/d has never been shown to reduce the risk of MI, CVA, or death.

Myth #2: Adrenergic activity is a major target for treating primary HTN.

Fact: Several meta-analyses have shown that beta-blockers confer lower protection against stroke and may be associated with an increased all-cause mortality compared with other agents. It is for that reason that beta-blockers are not considered first-line agents unless there is another indication for their use (such as CHF or Hx MI).

Myth #3: The more complete renin-angiotensin system blockade the greater the benefits.

Fact: Dual ACE-I and ARB therapy became popular ahead of the evidence. When studies caught up with practice, it was found the use of dual blockade did not decrease mortality but did lead to a markedly increased risk of adverse events.

Myth #4: Peripheral edema, a common adverse effect of CCBs, can be most effectively mitigated by concomitant use of diuretic therapy.

Fact: Peripheral edema, the most common side-effect of the dihydropyridine CCBs (nifedipine and amlodipine), is not primarily a volume-retention phenomenon, and therefore is not predictably responsive to diuretics. Combination with ACE-I in particular has been demonstrated to reduce CCB-induced edema.

Myth #5: Antihypertensive therapy causes erectile dysfunction.

Fact: Erectile dysfunction is a complex issue, particularly considering that HTN itself is likely a common cause of ED. Most anti-hypertensives appear to be "ED-neutral," and some, such as the ARBs, may improve ED. Though beta-blockers may cause a small increased risk of ED, the only one that appears to cause a significantly increased risk is nebivolol (Bystolic).

My Comment:
In a previous communication with Matthew Schumacher, MD, one of our Carilion Cardiologists who has a special focus on HTN, he indicated that the #1 "misconception" he sees in referrals to him is the use of non-vasodilating beta blockers (i.e., metoprolol, atenolol) for HTN without an additional indication due to comorbidity. The #2 is not using a thiazide or thiazide type diuretic (he also prefers chlorthalidone because of its evidence base in the medical literature) as first or second line therapy. I also frequently see an under-utilization of aldosterone antagonists (spironolactone) for medication resistant HTN.

Reference:
Argulian E, et al. Misconceptions and Facts about Treating Hypertension. Am J Med May 2015: 128(5):450-455. Abstract

From the Carilion Department of Family and Community Medicine

3) Tips for Improving Blood Pressure Control

One of the clinical scorecard measures for 2018-19 for the Carilion Clinic Department of Family and Community Medicine (FCM) is increasing the number of patients who have achieved the target blood pressure based on the ACP/AAFP joint guideline (See Pointer #1). While our ultimate goal is to have all patients achieve their target blood pressure, for the sake of the scorecard (and acknowledging all the complex variables that contribute to target blood pressure control), our goal is to achieve this for at least 80.95% of those with HTN whom we care for based on national benchmarks.

In order to help clinical teams provide better clinical care and also improve their scorecard measures, the FCM Department is creating a series of "Tips sheets" for our various scorecard measures. Below are the "Tips" for helping to achieve target blood pressure control for patients with HTN.

TIPS:

Nursing considerations*:*

- Consider checking the BP at the end of rooming a patient, allowing the patient to sit for a few minutes.
- Ensure proper size arm cuff, do not check over thick layer of clothing.
- Repeat BP if not in target range for age and enter new BP through the tab labeled "New Set of Vitals" in the Vital Signs flowsheet.
- Obtain blood pressure each visit, regardless of reason for visit.

Physician and ACP considerations:

- Utilize home BP measurements if using an ARM cuff (if patient is active on MyChart, you can place an order for ***MyChart BP Flowsheet*** through Meds & Orders to have them directly enter their BP measurements into MyChart).
- Remember to review vital signs at every visit.
- Remember to ask for barriers to medication adherence.
- Recommend lifestyle modifications including: physical activity, DASH diet, low sodium intake, smoking cessation, control blood glucose and lipids, moderate alcohol consumption. (JNC 8 Hypertension Guideline).
- If not controlled, review meds and make changes in doses or class of medication.
- Recommend monthly appointment until BP is at target, including BP check by clinical staff.

My Comment:

Consistently applying some basic processes has been shown in other health systems to substantially and positively impact clinical metrics. I encourage your teams to discuss these approaches at practice meetings and together explore how they might more consistently be implemented. This will lead to both better clinical outcomes AND an improved clinical scorecard!

Feel free to forward Take 3 to your colleagues. Glad to add them to the distribution list.

Mark

Carilion Clinic Department of Family and Community Medicine