JNC-8

(Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure- 8)
An Update on Hypertension Guidelines

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Disclosure

I have not had nor do I currently have any financial relationships with the manufacturers of health care products.

I will not discuss any pharmaceuticals, medical procedures, or devices that are investigational or unapproved for their stated use by the FDA.
**Question:** A 59 yo male with no significant PMHx, no medications, no contributing family history and no contributing social habits returns to your office for high BP. His last visit his BP was elevated. He has tried 6 weeks of lifestyle changes. His BP is essentially the same today. Which of these BP findings would indicate a need for medication?

A. 140/89  
B. 149/89  
C. All of the above  
D. None of the above

**Answer:** There is no current accepted answer!
“JNC- Late”

In June 2012 the National Institute of Health and the National Heart, Lung, and Blood Institute recommended that the Institute transition to a new model…

Goal Deadline: June 2013
Actually Submitted for Peer Review: January 2013
Released: December 18, 2013

Give Research Evidence to Support Its Recommendations
400 Nominees, 48 selected

Hypertension, Primary Care, Geriatrics, Cardiology, Nephrology, Nursing, Pharmacology, Clinical Trials, Evidence Based Medicine, Epidemiology, Informatics, Development and Implementation of Clinical Guidelines in Systems Care.

Also, senior members of from National Institute of Diabetes and Digestive and Kidney Diseases, the National Heart, Lung, and Blood Institute.

3 members left prior to completion. 4 members disclosed relationships with industry; were allowed to remain, but not vote. Peer reviewed January, 2013 by 20 reviewers and 16 federal agencies.
“JNC-?,? Wait!”

At the Time of release, JNC-8 was NOT endorsed by the American Heart Association, the American College of Cardiology, nor any other authoritative body. It was not even endorsed by the National Heart, Lung, and Blood Institute- one of the bodies that recommended it.

(These 3 groups announced they would release their own guidelines, but the NHLBI has since pulled out)
Why?

Dissention over panel endorsement as discussed. (In truth, they did not ask for endorsement)

JNC-8 used no cohort studies, systematic reviews, or meta-analysis in their reviews. (They argued that decision allowed them more objectivity and insight)
JNC-7 $\Rightarrow$ JNC-8

1. Re-emphasized that lifestyle be discussed with all patients with HTN or risk factors, but did not change any specific recommendations. Current recommendations are: no smoking, 30 min of activity most days of the week, Dietary Approaches to Stop Hypertension (DASH) diet, weight loss to goal BMI, &lt;2.4 grams Na/day, 2 ETOH/day men & 1/day women
2. 1st line therapy expanded from thiazides to include CCB’s, ACEI’s, and ARB’s
3. 1st line and later line treatment of hypertension should be limited to thiazides, CCB’s, ACEI’s, and ARB’s.
4. 2nd and 3rd line alternatives should be higher doses of the same, or combinations of the same.
5. African descent w/o CKD = thiazides or CCB’s
6. Use of ACEI’s or ARB’s recommended for all patients with CKD regardless of ethnicity
7. CCB’s or thiazides for age >75 with CKD.
8. ACEI’s and ARB’s should not be used together.
9. Unless there is a disease process that compels it: BB’s, AB’s, A1?BB’s (carvedilol), vasodilating BB’s (nebivolol), central A2ag’s (clonidine), vasodilators (hydralazine), loop diuretics, aldosterone ant. (spironolactone), peripherally acting adrenergic ants. (reserpine) should be withheld for refractory cases.
10. After initial high BP reading, follow up should be 7 days to 2 months. In all cases, goal BP should be reached within 30 days.

11. DBP control is more important than SBP control in age <60, SBP more important than DBP in age >60.
Main Bone Of Dissention:

The Recommendation to raise the SBP cutoff for treatment from 140mm Hg to 150 mm Hg in patients aged >60 w/o diabetes or CKD.

(This was a split vote and led to the committee break up)
WHY?

1. Mixed vote, but those voting in favor could not find evidence that pushing treatment to the lower number was beneficial.

2. Mixed vote, but those voting in favor found evidence that forcing treatment to the lower number increased the number of side effects seen.

3. Matches with standards from Europe and Canada.
The Other Side:

1. We have begun to see decreasing CVD rates in this country and lightening the standards may have an adverse effect on this.

2. They argued that stronger trials argued for the <140 SBP mark, but were rejected by the committee.

3. The LOWER standard of SBP >140 actually matches the European and Canadian standards.
Areas of Agreement

If > 60 yrs old and treatment results in SBP < 140, and it is well tolerated, treatment does not need to be adjusted.

All agreed that a target DBP < 90 was sound.
Support: Key Trials According to JNC-8

1. The Hypertension Detection and Follow Up Program: (Does not have a placebo or no treatment arm)
2. The UK Medical Research Council Working Party trial: (Mixed the results of stage 1 and stage 2 patients. However then they do agree it supports the higher SBP goal)
3. The Hypertension-Stroke Cooperative Study: (Found no benefits in BP medications after a stroke)
4. The Australian Therapeutics Trial: (Same as #2)
5. The Effects Morbidity of Treatment on HTN Study: (Same as #2)
Support: Other Trials
1. 2010 ACCORD BP
   (SBP <120 no better than <140)
2. 2009 ONTARGET
   (SBP 130 optimal)
3. 2008 ACCOMPLISH
   (SBP <130 no better than <140)
4. 2008 HYVET
   (SBP <150 still beneficial)
5. FEVER Trial, China, largest to date
   (Supports <140 SBP)
SPRINT
(Systolic Blood Pressure Intervention Trial)

Sponsored by the NHLBI

Began in 2010

Was hoped to be the foundation for JNC-8

Was not completed in time for JNC-8

Estimated Completion Date: 12/2018
Topics That Were Hoped for but Not Mentioned
(Submitted by national experts)

Increased research and support of lifestyle medicine

Reduced or eliminated role of atenolol

Use of chlorthalidone over HCTZ

Role of ambulatory BP monitoring

Role of aldosterone antagonists as add on therapy

Role of renal artery sympathetic denervation
Questions?

Please keep in mind I had nothing to do with this committee, this report, or any of these studies.

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