# Current Hypertension Treatment Guidelines

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# A multitude of HTN guidelines

JNC-7, published 1997

European Society of Hypertension Jun 2013

AHA-ACC-CDC scientific advisory Nov 2013

American Society of Hypertension (ASH) in conjunction with the International Society of Hypertension (ISH), guidelines Dec 2013

JNC-8, published Feb 2014 JAMA

# JNC -8 published Feb 2014, JAMA

Controversy with JNC-8 writing group

The JNC 8 panel did not utilize cohort studies, systematic reviews, or meta-analyses in their reviews. High quality randomized trials alone were considered

# #1

In patients 60 years or over, start treatment in blood pressures >150 mm Hg systolic or >90 mm Hg diastolic and treat to under those thresholds.

# #1

In the general population aged 60years, if treatment for high BP results in lower achieved SBP (e.g. <140mmHg) and treatment is well tolerated and without adverse effects on health or quality of life, treatment does not need to be adjusted.

# #2 #3

In the general population <60 years, initiate treatment to Lower BP at

DBP>90mmHg and treat to a goal DBP< 90mmHg.

SBP>140 mmHg and treat to a goal SBP <140 mmHg.

# # 4, 5

In the population with CKD or DM, treat to lower BP at SBP>140 mmHg or DBP>90 mmHg and treat to goal SBP<140mmHg and goal DBP<90 mmHg.

# #6 and 7

- In non African American  patients with hypertension, initial treatment can be a thiazide-type diuretic, CCB, ACE inhibitor, or ARB
- In the general African American population, including those with DM, initial therapy should be a thiazide-type diuretic or CCB.

# #8

In patients with CKD, initial or add-on therapy should be an ACE inhibitor or ARB, regardless of race or diabetes status.

# #9

If goal BP is not reached within a month of treatment, increase the dose of the initial drug or add a second drug from one of the classes in recommendation 6 (thiazide-type diuretic, CCB, ACEI, or ARB).

If goal BP cannot be reached with 2 drugs, add and titrate a third drug from the list provided.

Do not use an ACEI and an ARB together in the same patient.

# JNC 8 vs JNC 7

JNC 7 recommended a treatment threshold of 140/90 mm Hg regardless of age, whereas JNC 8 raises the systolic threshold at age 60.

JNC 7 recommended a lower treatment threshold (130/80 mm Hg) for patients with diabetes or chronic kidney disease, but JNC 8 does not.

β-blockers are no longer recommended for initial therapy because they might afford less protection against stroke

# JNC 8

Major changes from JNC 7

- Attempted focus on evidence based recommendations
- Higher target SBP for pts over 60 yo
- Removed special lower target BP for those with CKD or DM
- Liberalized initial drug choices

AHA-ACC-CDC recommended SBP goals for both patients older and younger than 80 yr, as opposed to older and younger than 60 yrs in JNC 8,

are in agreement with guidelines from: Am Society of HTN, International Society of HTN Canada, Europe, and the UK

JNC 8 stuck to very stringent evidence-based criteria—there were only two placebo-controlled studies that evaluated people over the age of 60 with systolic hypertension

VALISH (Valsartan in Elderly Isolated systolic hypertension study)

JATOS (Japanese trial to assess optimal systolic blood pressure in elderly hypertensive patients)

No outcome differences in all cause mortality, cardiovascular and renal failure in the groups randomized to SBP <140 vs <150 mm Hg

# Reservations

( HYVET Hypertension in the Very Elderly Trial  ) which showed reduction in total mortality in pts >80 yrs with SBP control of <150 mm Hg

Systolic Hypertension in the Elderly Program (SHEP)

The Felodipine Event Reduction (FEVER) Study

Not taken into account.

# Dissenting opinion

Five members of the JNC 8 released a dissenting opinion in The Annals regarding the change in the recommendation for the elderly

Increasing the systolic BP target in those 60 years or older will have the effect of reducing the intensity of antihypertensive treatment among patients with established CVD or at high risk for CVD

The evidence supporting upping the target from 140 mm Hg to 150 mm Hg in people 60 or older was insufficient and non representative

Raising the target may reverse decades of declining CVD rates, especially stroke mortality.

Evidence from trials and observational studies that the panel did not use supports the lower goal in older, high-risk patients.

EVIDENCE SUPPORTING A SYSTOLIC BLOOD PRESSURE GOAL OF LESS THAN 150 MM HG IN PATIENTS AGED 60 YEARS OR OLDER: THE MINORITY VIEW ANN INTERN MED. 2014;160(7):499-503

| | JNC 8 | ESH/ESC | AHA/ACC | ASH/ISH |
|---|---|---|---|---|
| Threshold for Drug Rx | ≥140/90 < 60 yr<br>≥150/90 ≥60 yr | ≥140/90<br>Eldery SBP ≥160<br>Consider SBP 140-150 if <80 yr | ≥140/90 | ≥140/90 <80 yr<br>≥150/90 ≥80 yr |
| B-blocker First line Rx | No | Yes | No | No |
| Initiate Therapy w/ 2 drugs | ≥160/100 | "Markedly elevated BP" | ≥160/100 | ≥160/100 |

- ✓In patients <80 y/o, I use ≥140/90 mmHg as the cut-off for both diagnosis AND initiation of Rx for HTN, with a goal BP of <140/90,
- ✓In patients ≥80 y/o, I use ≥150/90 mmHg as the cut-off for initiation of Rx for HTN, with a goal BP of <150/90, but if on-treatment BP is <140/90, and well-tolerated, do not modify therapy
- ✓In patients with BP >160/100 mmHg, I start with 2 drugs

# Thank you!

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