

## Hypertensive Management in the Asymptomatic Patient: First do no harm

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## Case Presentation

- 42 yo obese male presents complaining of chronic knee pain with no acute injury. He is otherwise asymptomatic but...
- Triage Vitals- BP 210/115
- Now what?



## Background

- HTN affects 50 million people in the US and approximately 1 billion world wide
- Normotensive patients at age 55 have a 90% lifetime risk for development

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## Question #1

- Initiation of medical management is recommended at which level of BP?
  - A. 120/75
  - B. 140/90
  - C. 135/80
  - D. 160/100



## Prehypertension

- Significant risk for progression to **hypertension**
- Patients in the 130–139/80–89 mmHg BP range are at twice the risk to develop **hypertension** as those with lower values.

Chobanian AV et al. [The JNC 7 Report]. JAMA. 2003.  
Vasan RS et al. N Engl J Med. 2001.



## Increased CVD Risk

- Patients 40-70 yrs **double** their CVD risk with each increment of 20 mmHg SBP or 10 mmHg DBP from 115/75 to 185 mmHg

Lewington S et al. Lancet. 2002  
Chobanian AV et al. [The JNC 7 Report]. JAMA. 2003.



### Question 2

- Are blood pressure measurements accurate for screening for asymptomatic hypertension in the ED?
  - A. Yes
  - B. No



### ACEP Recommendations

- Are ED BP readings accurate and reliable for screening asymptomatic patients for HTN?
  - Level B - If 2 or more measurements are elevated with a SBP > 140 mmHg or DBP > 90 mmHg, the patient should be referred for follow-up for possible HTN and appropriate BP management
  - Level C - Pts with 1 elevated BP reading may require further screening in the outpt setting



### Is there Benefit with Acute Blood Pressure Reduction in Asymptomatic Patients?

- Beyond making us feel better?!



### Outcomes With and Without Treatment

- VA Coop Trial of 1967- RCT with placebo control
  - 143 pts with DBP 115-130
  - No adverse outcomes with treatment versus placebo
    - 4 pts did develop significant complications after 4 months including sudden death, elevated Cr, CHF and ruptured AAA



### ACEP Recs for Asymptomatic HTN

- Level B-
  - (1) Rapidly lowering BP is unnecessary and may be harmful in some pts.
  - (2) Initiating treatment is not necessary when definitive follow-up is available
  - (3) When ED treatment is initiated, BP should be lowered gradually and should not be expected to normalize in the ED



### Future Areas of Research

- What is the acute work-up for asymptomatic hypertension in the ED?
  - Some limited studies

