

## **HYPERTENSION CASES**

Med 601

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### **Case 1**

A 46-year-old man makes an appointment for a 'check-up'. His BP is 156/104.

1. What is the definition of hypertension?
2. What are the possible explanations for his high BP reading?
3. How do you diagnose essential hypertension?

### **Case 2**

A 55-year-old woman returns to clinic with a written record of ambulatory BP readings (158/98; 166/110; 156/104). Her current BP is 148/98 in both arms after resting for 5 minutes in the exam room. You make a diagnosis of HTN.

1. Which aspects of history will you review?
2. Which areas of physical exam are most relevant to your HTN evaluation?
3. Which laboratories will you order?
4. What will you try to teach her about her condition?

### **Case 3**

A 38-year-old man with essential HTN (average BP of 145/95) returns to discuss treatment options.

1. Which aspects of his lifestyle deserve attention?
2. Should you start drug therapy?
3. Under what circumstances would withholding drug treatment be reasonable?

### **Case 4**

A 69-year-old man with no other medical problems has a BP of 180/70 despite taking regular walks.

1. Is drug therapy indicated in elderly people with isolated systolic hypertension?
2. Which drug would you choose?
3. What BP goal would you set?
4. Would your drug choice change if he had:
  - a. angina?
  - b. Type 2 DM with proteinuria?
  - c. severe LVH?
  - d. prostatism?
  - e. COPD?
  - f. gout?
  - g. migraine headaches?
  - h. high LDL cholesterol?
  - i. depression?

### **Case 5**

A 56-year-old man had a BP of 178/106 nine months ago. He lost 25 pounds, stopped eating Campbell's Soup, just says no after one beer, and walks 45 minutes daily. Three months ago, his BP was 160/100. Other than being a man over 45, he has no cardiac risk factors. You started HCTZ 50 mg po qd. He now tells you that he is having difficulty with erections. His BP is 148/94. His potassium is 3.2 meq/dl.

1. How would you manage this patient?

### Case 6

A 32-year-old woman with a 5 year history of HTN has a BP of 150/100 in spite of treatment with HCTZ, nifedipine, and propranolol.

1. Discuss 3 possible explanations for her poor BP control.

### Case 7

A 58-year-old woman returns to clinic, and her BP is 165/106. Although her BP is consistently high in clinic, ambulatory readings taken at the fire station, drug store, and at home average 138/85. She is not currently taking the medications you prescribed for hypertension, because she does not feel they are necessary.

1. How common is "white coat hypertension"?
2. Should she be treated?
3. Does target organ damage correlate better with ambulatory or clinic BP readings?

### Case 8

An 18-year-old woman is admitted with headache, lethargy, blurred vision, shortness of breath, and dark urine of 2 days duration. She had visited Urgent Care 2 weeks prior to admission with a sore throat and fever. A throat culture grew group A beta-hemolytic Strep. The patient did not return to receive the culture result or treatment. Her blood pressure is 180/112.

1. What is your diagnosis ?
2. What would you expect to see in her retinal exam, chest exam, urine ?
3. Please list reasons you would admit this patient to the ICU.

### References:

1. The Seventh Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7). *JAMA*. 2003;289:2560-2571.  
*Comprehensive summary of the topic. Single best reference.*
2. Setaro JF, Black HR. Refractory hypertension. *N Engl J Med* 1992;327:543-7.
3. Calhoun DA, Oparil S. Treatment of hypertensive crisis. *N Engl J Med* 1990;323:1177-83