

Hypertension MCQ (Part 1)

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ABSTRACT

The multiple choice questions are one of the educational tools widely popular among undergraduate and postgraduate candidates, healthcare professionals, and healthcare faculties. Suppose used for efficient assessment, objective orientation, assessment of various levels of learning, versatile applications, and knowledge review process. Besides, it prepares students for license board exams and other advanced board certifications in multiple subjects and specialties. The exams section tests your knowledge with various topics and related information.

Keywords: Multiple choice questions, pharmacy, healthcare, Exams education, Hypertension.

Use the following case for the following TWO questions.

A 75-year-old Hispanic man was admitted to the hospital for hypertension. His previous medical history included ten years of hypertension. His blood pressure is 158/82 mm Hg today, his heart rate is 70 beats per minute, his Scr level is 1.1 mg/dL, and his potassium level is 4.4 mmol/L. His medications are benazepril 40 mg and amlodipine 10 mg orally daily; he weighs 95 kg, is 175 cm tall (BMI 31 kg/m²), smokes one-half pack of cigarettes each day, and drinks three alcoholic beverages every week.

1. Which medications should be added to his antihypertensive regimen?

- Chlorthalidone
- Verapamil
- Irbesartan
- Metoprolol succinate

2. Which of the following lifestyle modifications is most likely to produce a significant decrease in blood pressure?

- Quit smoking.
- Reduce salt intake by 500 mg per day.
- A 5 kg weight reduction
- A 50% reduction in alcohol consumption

Use the following case for the following TWO questions. A 60-year-old woman with type II DM, hypertension, osteoporosis, and atrial fibrillation has a BP of 150/96 mm Hg, heart rate of 67 beats/min, potassium of 3.2 mmol/L, and an SCR of 2.3 mg/dl. She reports an "allergy" to hydrochlorothiazide. Presently, she is on verapamil CD 480 mg daily.

3. Which of the following drug regimens would be the most appropriate to add to her regimen?

- Chlorthalidone 12.5 mg daily
- Amlodipine 5 mg daily
- Atenolol 25 mg daily
- Valsartan 160 mg daily

4. Why would Chlorthalidone not be appropriate in the previous case?

- The patient has hypokalemia.
- The patient has significant kidney dysfunction.
- The patient has a history of allergy to hydrochlorothiazide.
- All the above

5. Which of the following is preferred as add-on therapy for a patient who experienced a myocardial infarction (3 months ago) and has a BP of 136/88 mm Hg while taking metoprolol succinate 200 mg daily?

- Chlorthalidone
- Lisinopril
- Verapamil
- Amlodipine

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Use the following case for the following TWO questions.

Mr. Omar is a 65-year-old black man. He is complaining about an infection related to his dialysis, which has now been resolved. His past medical history is significant for hypertension, dyslipidemia, chronic kidney disease stage 3, and he was s/p MI in 2010. BP 158/92 mmHg, HR 84 bpm, Scr 1.7 mg/dL, uric acid 7.0 mg/dL, and (+) proteins in urine. His current medication regimen is Aspirin EC 81mg daily, Metoprolol tartrate 50mg twice daily, Lisinopril 40mg daily, and Pravastatin 80mg daily.

6. What is your recommendation for pharmacotherapy to treat this patient's BP?

- Initiate a calcium channel blocker.
- Initiate thiazide diuretic
- Initiate ARBs
- Initiate another B blocker.

7. In the previous case, Which drugs should be used cautiously in gout patients?

- ACEIs
- Thiazide diuretics
- B blockers
- CCBs

Use the following case for the following FOUR questions.

When a 35-year-old black woman arrives for a routine physical examination by a medical assistant, her blood pressure is 150/110 mm Hg. She has never had hypertension before. Her most recent lab results were also average; she has a 10-year ASCVD risk score of 1.2%. Her average home blood pressure after two weeks is 138/96 mm Hg.

8. Which of the following is the most accurate classification of her blood pressure?

- Normal blood pressure
- Elevated blood pressure
- Stage 1 hypertension
- Stage 2 hypertension

9. Which of the following is this patient's most appropriate BP goal?

- <120/80 mm Hg
- <130/80 mm Hg
- <140/90 mm Hg
- <150/90 mm Hg

10. What is the most appropriate plan for this patient now?

- Lifestyle changes, continued home BP monitoring, and reevaluation in 3 months.
- Lifestyle changes, continued home BP monitoring, enalapril initiation, and reevaluation in 1 month
- Lifestyle changes, continued home BP monitoring, initiation of hydrochlorothiazide, and reevaluation in 1 month.
- Lifestyle changes, continued home BP monitoring, initiation of enalapril and amlodipine, and reevaluation in 1 month.

11. What advice do you give the patient about her new medication?

- These medications are generally safe to use in pregnancy.
- Increase your daily ingestion of potassium and sodium.
- Use contraception due to the potential harm of using an ACEI.
- Decrease your daily fiber intake.

Use the following case for the following TWO questions.

A 54-year-old woman was hospitalized for an infection that is now stable. She is on amlodipine for blood pressure control, and at her most recent visit, she reported perfect adherence, so her dose was increased from 5 mg to 10 mg daily. Her blood pressure was 166/98 mmHg, and her heart rate was 92 beats per minute. PMH: HTN, dyslipidemia, and type 2 diabetes.

Medications:

Amlodipine 10mg daily, Metformin 500mg twice daily, ASA EC 81mg daily, Atorvastatin 20mg daily, Ibuprofen 600 mg q 6hrs prn pain (as per patient; started a few weeks ago)

Labs: (3 days ago): Na 140 mEq/L, K 5.4 mEq/L, BUN 10 mg/dL, Scr 0.77 mg/dL, FBG 95 mg/dL, A1c 5.3 %.

12. What is the best recommendation for pharmacotherapy to treat this patient's BP?

- Initiate a thiazide diuretic.
- Initiate ACEI.
- Initiate K sparing diuretic.
- Continue on amlodipine only.

13. Which monitoring parameters should you recommend for your patient's blood pressure?

- K, Scr and recheck of BP
- K concentration recheck of BP
- Scr and recheck of BP
- Recheck of BP