

Use the following scenario for the next two questions: An 80-year-old man has a past medical history of hypertension (for the past 10 years), and migraine headaches. His BP today is 158/72 mm Hg (156/70 mm Hg when repeated), heart rate is 60 beats/minute, serum creatinine is 1.2 mg/dL, and potassium is 4.3 mEq/L. He is currently on lisinopril 40 mg daily and verapamil SR 240 mg daily, weighs 73 kg, is 70 in tall, smokes cigarettes 1 pack/daily, and consumes two to three ethanol-containing drinks weekly.

Which of the following is the most appropriate recommendation to add to his antihypertensive regimen?

- A) Amlodipine 5 mg daily
- B) Losartan 50 mg daily
- C) Hydrochlorothiazide 12.5 mg daily
- D) Furosemide 20 mg daily

Use the following scenario for the next two questions: An 80-year-old man has a past medical history of hypertension (for the past 10 years), and migraine headaches. His BP today is 158/72 mm Hg (156/70 mm Hg when repeated), heart rate is 60 beats/minute, serum creatinine is 1.2 mg/dL, and potassium is 4.3 mEq/L. He is currently on lisinopril 40 mg daily and verapamil SR 240 mg daily, weighs 73 kg, is 70 in tall, smokes cigarettes 1 pack/daily, and consumes two to three ethanol-containing drinks weekly.

Which of the following lifestyle modifications are most reasonable to recommend for this man to lower his BP?

- A) Weight loss
- B) Smoking cessation
- C) Adopting a DASH eating plan
- D) Decreasing ethanol consumption
- E) All of the above

Use the following scenario for the next two questions: A 37-year-old woman has a BP measurement of 190/120 mm Hg when she first arrives for a routine physical exam by a medical assistant. She has no previous history of hypertension, and the only other time she had been seen by her primary care physician, her BP was 120/80 mm Hg. She is extensively interviewed and examined and has no signs of acute or chronic hypertension-associated

target-organ damage. Her BP is measured again 20 minutes later by her physician, and it is 140/88 mm Hg (140/90 mm Hg when repeated). Based on her most recent fasting lipid panel, her Framingham risk score is 1%.

Which of the following is the most accurate clinical assessment of her present situation?

- A) Prehypertension
- B) Elevated BP
- C) Stage 1 hypertension
- D) White coat hypertension
- E) Hypertensive urgency

Use the following scenario for the next two questions: A 37-year-old woman has a BP measurement of 190/120 mm Hg when she first arrives for a routine physical exam by a medical assistant. She has no previous history of hypertension, and the only other time she had been seen by her primary care physician, her BP was 120/80 mm Hg. She is extensively interviewed and examined and has no signs of acute or chronic hypertension-associated target-organ damage. Her BP is measured again 20 minutes later by her physician, and it is 140/88 mm Hg (140/90 mm Hg when repeated). Based on her most recent fasting lipid panel, her Framingham risk score is 1%.

Which of the following is most appropriate BP goal in this patient?

- A) <115/75 mmHg
- B) <120/80 mmHg
- C) <130/80 mmHg
- D) <140/90 mmHg

Use the following scenario for the next two questions: A 60-year-old woman with hypertension and left ventricular dysfunction (systolic heart failure) is seen 2 months after experiencing an acute MI. Her present BP is 130/84 mm Hg (132/82 mm Hg when repeated) and her heart rate is 60 beats/minute. Her serum creatinine is 1.1 mg/dL, serum potassium is 3.5 mEq/L, and spot urinalysis shows 40 mg albumin/g creatinine. She currently has no peripheral or pulmonary edema. She is taking furosemide 40 mg BID, carvedilol 25 mg BID and enalapril 20 mg BID.

Which of the following medical conditions justifies the use of carvedilol in this patient?

- A) Left ventricular dysfunction
- B) Recent MI
- C) Chronic kidney disease
- D) a and b
- E) a, b, and c

Use the following scenario for the next two questions: A 60-year-old woman with hypertension and left ventricular dysfunction (systolic heart failure) is seen 2 months after experiencing an acute MI. Her present BP is 130/84 mm Hg (132/82 mm Hg when repeated) and her heart rate is 60 beats/minute. Her serum creatinine is 1.1 mg/dL, serum potassium is 3.5 mEq/L, and spot urinalysis shows 40 mg albumin/g creatinine. She currently has no peripheral or pulmonary edema. She is taking furosemide 40 mg BID, carvedilol 25 mg BID and enalapril 20 mg BID.

Which of the following statements is most appropriate to include when counseling this patient regarding her antihypertensive therapy?

- A) It will be possible to stop enalapril once your BP is at goal.
- B) If you experience depression, stop taking carvedilol.
- C) Long-term benefits of these medications are a reduced risk of CV events.
- D) If you experience dry cough, stop taking lisinopril because this can lead to angioedema

Which of the following statements is true regarding diuretics in the treatment of hypertension?

- A) Thiazide-type diuretics are first-line agents because they lower BP and lower risk of CV events.
- B) The ALLHAT study showed that nonfatal MI and coronary heart disease are reduced more with chlorthalidone than with amlodipine or lisinopril.
- C) Loop diuretics are preferred over thiazide-type diuretics in chronic kidney disease.
- D) BP lowering with hydrochlorothiazide 25 mg daily is equal to chlorthalidone 25 mg daily.

Which of the following is true regarding prehypertension?

- A) All patients with BP values >120/80 mm Hg have prehypertension.
- B) The JNC7 and AHA guidelines encourage, but do not recommend, lifestyle modifications in all patients with prehypertension.
- C) Most patients with prehypertension will not develop hypertension in their lifetime.
- D) Patients with prehypertension have higher CV risk than patients with normal BP values.

Use the following case for the next two questions: A 70-year-old woman with hypertension and type 2 diabetes has been on hydrochlorothiazide 25 mg daily and amlodipine 5 mg daily for 6 years. She was on captopril and enalapril several years ago, but both were stopped due to a dry cough. She was first diagnosed with hypertension when her BP was 180/82 mm Hg. Today, her BP is 148/78 mm Hg (148/76 mm Hg when repeated), and her heart rate is 100 beats/minute. Her urinalysis shows microalbuminuria, serum creatinine is 1.5 mg/dL, potassium is 4.1 mEq/L, weight is 75 kg, and height is 66 in. Her only complaint is headache.

Which of the following is/are routine monitoring parameters for her antihypertensive drug therapy?

- A) Heart rate
- B) Serum potassium, sodium, and magnesium
- C) Serum creatinine and BUN
- D) All of the above

Use the following case for the next two questions: A 70-year-old woman with hypertension and type 2 diabetes has been on hydrochlorothiazide 25 mg daily and amlodipine 5 mg daily for 6 years. She was on captopril and enalapril several years ago, but both were stopped due to a dry cough. She was first diagnosed with hypertension when her BP was 180/82 mm Hg. Today, her BP is 148/78 mm Hg (148/76 mm Hg when repeated), and her heart rate is 100 beats/minute. Her urinalysis shows microalbuminuria, serum creatinine is 1.5 mg/dL, potassium is 4.1 mEq/L, weight is 75 kg, and height is 66 in. Her only complaint is headache.

Losartan 50 mg daily is added to her regimen. Four weeks later, her BP is 132/82 and 134/80 mm Hg, serum creatinine is 1.9 mg/dL, and potassium has increased to 4.4 mEq/L. Which of the following is the most appropriate option to treat this patient's hypertension?

- A) Stop losartan and start ramipril
- B) Increase losartan to 100 mg daily
- C) Increase hydrochlorothiazide to 50 mg daily
- D) Add eplerenone 25 mg daily
- E) Decrease losartan to 25 mg daily

Which of the following is true regarding the use of arterial vasodilators (hydralazine and minoxidil) in the treatment of hypertension?

- A) Severe bradycardia occurs when they are used in combination with a β -blocker.
- B) Both can cause severe rebound hypertension when stopped abruptly.
- C) Both are poorly tolerated because of anticholinergic side effects.
- D) Both should be given in combination with at least a thiazide-type diuretic.

A 65-year-old woman with type 2 diabetes, hypertension, osteoporosis, and atrial fibrillation has a BP of 150/96 mm Hg (150/90 mm Hg when repeated), heart rate of 68 beats/minute, potassium of 3.2 mEq/L, and a serum creatinine of 2.3 mg/dL. She reports an allergy to chlorthalidone (severe gout). Presently, she is on diltiazem CD 360 mg daily and torsemide 10 mg daily. At this point in her care, which of the following agents would be the most rational addition to her regimen?

- A) Hydrochlorothiazide 12.5 mg daily
- B) Amlodipine 5 mg daily
- C) Doxazosin 1 mg daily
- D) Atenolol 25 mg daily
- E) Valsartan 160 mg daily

Which of the following is preferred as add-on therapy for a patient who is status post-MI (1 month ago) with a BP of 146/88 mm Hg (144/86 mm Hg when repeated) while treated with metoprolol XL 200 mg daily?

- A) Chlorthalidone
- B) Valsartan
- C) Eplerenone
- D) Amlodipine
- E) Lisinopril

Which of the following is preferred as initial antihypertensive therapy for a 63-year-old woman who is diagnosed with hypertension and has a history of ischemic stroke (6 months ago), with a BP of 166/108 mm Hg (164/106 mm Hg when repeated)?

- A) A thiazide-type diuretic with an ACE inhibitor
- B) A thiazide-type diuretic with a non-selective β -blocker
- C) An ARB alone
- D) A thiazide-type diuretic alone
- E) An ACE inhibitor alone

A 52-year-old man has a past history of chronic stable angina and hypertension. He is experiencing chest pain twice weekly while being treated with atenolol 100 mg daily. His BP is 146/90 mm Hg (144/92 mm Hg when repeated), and his heart rate is 58 beats/minute. Which of the following is the most appropriate agent to add in this patient?

- A) Hydrochlorothiazide 12.5 mg daily
- B) Quinapril 20 mg daily
- C) Diltiazem SR 180 mg daily
- D) Nifedipine SR 30 mg daily
- E) Irbesartan 150 mg daily

Use the following case for the next three questions: A 69-year-old woman with a history of angioedema (from lisinopril), hypertension, and type 2 diabetes is currently receiving hydrochlorothiazide 25 mg daily and atenolol 100 mg daily. Today her BP is 138/82 mm Hg

(138/84 mm Hg when repeated), and her heart rate is 56 beats/min. Urinalysis shows macroalbuminuria, serum creatinine is 1.2 mg/dL, potassium is 3.8 mEq/dL, weight is 90 kg, and height is 65 in. She complains of heartburn, a dry cough, constipation, and fatigue when she exercises. She normally exercises 3 times/week and follows a DASH eating plan.

Which of her complaints is most likely from one of her antihypertensive medications?

- A) Heartburn
- B) Dry cough
- C) Constipation
- D) Fatigue

Use the following case for the next three questions: A 69-year-old woman with a history of angioedema (from lisinopril), hypertension, and type 2 diabetes is currently receiving hydrochlorothiazide 25 mg daily and atenolol 100 mg daily. Today her BP is 138/82 mm Hg (138/84 mm Hg when repeated), and her heart rate is 56 beats/min. Urinalysis shows macroalbuminuria, serum creatinine is 1.2 mg/dL, potassium is 3.8 mEq/dL, weight is 90 kg, and height is 65 in. She complains of heartburn, a dry cough, constipation, and fatigue when she exercises. She normally exercises 3 times/week and follows a DASH eating plan.

Which of the following is the most appropriate modification to her regimen?

- A) Decrease atenolol to 50 mg daily and add enalapril
- B) Decrease atenolol to 50 mg daily and add valsartan
- C) Replace hydrochlorothiazide with spironolactone and felodipine
- D) Replace atenolol with valsartan
- E) Add felodipine and triamterene

Use the following case for the next three questions: A 69-year-old woman with a history of angioedema (from lisinopril), hypertension, and type 2 diabetes is currently receiving hydrochlorothiazide 25 mg daily and atenolol 100 mg daily. Today her BP is 138/82 mm Hg (138/84 mm Hg when repeated), and her heart rate is 56 beats/min. Urinalysis shows macroalbuminuria, serum creatinine is 1.2 mg/dL, potassium is 3.8 mEq/dL, weight is 90 kg, and height is 65 in. She complains of heartburn, a dry cough, constipation, and fatigue when she exercises. She normally exercises 3 times/week and follows a DASH eating plan.

This woman takes several nonprescription medications: aspirin 81 mg daily, a multivitamin daily, acetaminophen, and loratadine. She asks you if these are safe to take because of her hypertension. Which of the following is the most appropriate response?

- A) You should stop taking these until you have discussed this with your primary care physician.
- B) Acetaminophen can increase your blood pressure if used in high doses.
- C) Loratadine can increase your blood pressure so use it only as needed.
- D) These medications are generally safe to use for patients with hypertension.

A 55-year-old man with hypertension is currently treated with hydrochlorothiazide 25 mg daily, irbesartan 300 mg daily, carvedilol 25 mg twice daily, and amlodipine 10 mg daily. His BP is 144/90 mm Hg (146/92 mm Hg when repeated). He is adherent with all of these medications. Serum creatinine is 1.2 mg/dL, potassium is 4.2 mEq/L, and all other laboratory values are normal. His Framingham risk score is 8%.

Which of the following is the most appropriate to add to his regimen?

- A) Terazosin 2 mg daily
- B) Spironolactone 25 mg daily
- C) Clonidine 0.1 mg twice daily
- D) Chlorthalidone 12.5 mg daily

Which of the following is/are appropriate recommendations when a patient with newly diagnosed hypertension asks you for advice on how to increase potassium as a lifestyle modification to lower BP?

- A) Increase your dietary intake of potassium rich foods.
- B) Start using over the counter potassium supplements.
- C) Ask your physician to prescribe prescription strength potassium chloride.
- D) a and b.
- E) a, b, and c.