

## Ambulatory Care Sample Items

1. A 32-year-old woman comes to the office because of a 1-day history of easy bruising. During the past 3 days, she has had a temperature of 38.9°C (102.0°F), headache, runny nose, cough productive of white sputum, and muscle pain. She has treated her symptoms with aspirin, dextromethorphan, and pseudoephedrine. She has no other history of serious illness. Temperature is 38.0°C (100.4°F), pulse is 80/min, respirations are 12/min, and blood pressure is 100/60 mm Hg. On physical examination, the posterior oropharynx is erythematous without exudate. There are several ecchymoses noted over the lower extremities. Auscultation of the lungs discloses coarse upper airway sounds. Laboratory studies show:

Hematocrit	37%
Leukocyte count	12,000/mm <sup>3</sup>
Platelet count	180,000/mm <sup>3</sup>

Which of the following parameters is most likely to be abnormal in this patient?

- (A) Platelet function analyzer (PFA-100)
  - (B) Partial thromboplastin time
  - (C) Prothrombin time
  - (D) Serum factor VIII concentration
  - (E) Serum factor IX concentration
2. A 72-year-old man comes to the office with his wife for a follow-up examination 2 months after undergoing coronary artery bypass grafting and reports a 5-week history of lethargy, difficulty sleeping, and an inability to read the newspaper. The patient's wife states that he seems distracted and forgetful and has lost interest in sexual intercourse since his operation. The patient says he is worried that sexual activity will kill him. He appears disheveled and unkempt and has poor hygiene. On mental status examination, he is oriented to person and place but misses the date by 2 days. He makes several errors on serial sevens. Results of laboratory studies are within the reference ranges. Which of the following is the most likely diagnosis?

- (A) Dementia, Alzheimer type
- (B) Generalized anxiety disorder
- (C) Major depressive disorder
- (D) Post-traumatic stress disorder
- (E) Transient ischemic attacks
- (F) Normal aging

3. A 52-year-old woman comes to the office because of a 2-month history of pain, swelling, and stiffness of her knees. She reports that the stiffness is worse in the morning. During the past month, she has had progressive, generalized fatigue. On examination, the knees are warm, swollen, and tender. Any attempt at passive movement of the knees produces pain. Laboratory studies show:

Hemoglobin	10 g/dL
Leukocyte count	10,000/mm <sup>3</sup>
Erythrocyte sedimentation rate	50 mm/h

X-rays of the knees disclose osteopenia and subcartilaginous cysts around the joints. The joint spaces are intact. Which of the following is the most appropriate next step in diagnosis?

- (A) DEXA scan
- (B) MRI of the knees
- (C) Serum rheumatoid factor assay
- (D) Serum uric acid concentration
- (E) Synovial biopsy

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4. A 67-year-old woman comes to the office because of a 2-week history of episodes of shoulder pain and nausea that are precipitated by climbing stairs or vacuuming and resolve in 5 to 10 minutes with rest. She has hypertension treated with hydrochlorothiazide. Temperature is 37.1°C (98.8°F), pulse is 88/min and regular, respirations are 16/min, and blood pressure is 148/94 mm Hg. Physical examination shows Heberden nodes at several distal interphalangeal joints of the hands. There is no thyromegaly, peripheral cyanosis, clubbing, or edema. The lungs are clear to auscultation. Cardiac examination discloses a normal S<sub>1</sub> and S<sub>2</sub>; an S<sub>4</sub> gallop is heard. Active range of motion of the shoulders is normal without pain. Which of the following is the most likely cause of this patient's shoulder pain?
- (A) Cholelithiasis
  - (B) Gastroesophageal reflux disease
  - (C) Ischemic heart disease
  - (D) Polymyalgia rheumatica
  - (E) Tendinitis
5. A 27-year-old man comes to the office for a health maintenance examination. Family history includes hypertension in both parents. The patient drinks one glass of wine five times weekly and two cups of coffee daily. He is 173 cm (5 ft 8 in) tall and weighs 70 kg (154 lb); BMI is 23 kg/m<sup>2</sup>. Blood pressure is 120/82 mm Hg. Physical examination shows no abnormalities. The patient asks how he can prevent developing hypertension. Which of the following is the most appropriate recommendation?
- (A) Avoid supplements containing ginkgo biloba
  - (B) Discontinue alcohol consumption
  - (C) Discontinue drinking caffeinated coffee
  - (D) Maintain a healthy weight through diet and exercise
  - (E) Take a multivitamin containing folic acid
6. A 57-year-old woman comes to the office because of a 6-month history of fatigue and headaches. She takes no medications. Pulse is 95/min and regular and blood pressure is 215/115 mm Hg. Auscultation of the chest discloses clear lungs and normal heart sounds. The abdomen is soft with no masses or organomegaly. A bruit is heard best in the right flank. Serum urea nitrogen concentration is 24 mg/dL and serum creatinine concentration is 1.2 mg/dL. Arteriography shows 95% stenosis of the right renal artery with no significant narrowing of the left renal artery. Which of the following is the primary mechanism of this patient's hypertension?
- (A) Angiotensin II-induced vasoconstriction
  - (B) Hypernatremia
  - (C) Hypervolemia
  - (D) Increased ADH (vasopressin) concentration
  - (E) Increased catecholamine concentration
7. A 42-year-old woman comes to the office for a health maintenance examination. She has an 8-year history of type 1 diabetes mellitus with no ocular changes. Physical examination shows no abnormalities. Serum creatinine concentration is 0.8 mg/dL. Urinalysis shows no protein. ECG shows no abnormalities. Which of the following is the most appropriate next step in management?
- (A) Complete blood count
  - (B) Creatinine clearance
  - (C) Graded exercise stress test
  - (D) Echocardiography
  - (E) Serum lipid concentrations

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8. A 35-year-old man comes to the office because of a 6-month history of a chronic daily dry cough. The patient reports that the cough is accompanied by a tight feeling in the chest. During the past 2 years, he has had similar episodes that lasted for several weeks at a time. He has noted that the cough is exacerbated by cold weather and playing basketball. He has allergic rhinitis that is well controlled with loratadine; he does not have postnasal drip or heartburn. Temperature is 37.0°C (98.6°F), pulse is 70/min, respirations are 18/min, and blood pressure is 110/80 mm Hg. Physical examination shows nontender sinuses, no erythema of the tympanic membranes, and no injection of the pharynx. The lungs are clear to auscultation. There is no epigastric tenderness. Which of the following is most likely to confirm the diagnosis?

- (A) Arterial blood gas analysis
- (B) Bronchoscopy
- (C) CT scan of the sinuses
- (D) Esophageal pH electrode
- (E) Pulmonary function tests
- (F) Serum  $\alpha_1$ -antitrypsin concentration
- (G) X-ray of the chest

9. A 47-year-old man comes to the office because of a 3-week history of progressive shortness of breath and fever and a 5-day history of pleuritic chest pain. During the past 2 months, he has had a 4.5-kg (10-lb) weight loss. He recently emigrated from Vietnam. Physical examination shows temporal muscle loss. Auscultation of the chest discloses dullness to percussion over the left lower lung field. An x-ray of the chest shows a left pleural effusion. Thoracentesis yields cloudy fluid. Results of laboratory studies are shown:

Serum	
Glucose	105 mg/dL
Protein	7.2 g/dL
Lactate dehydrogenase (LDH)	90 U/L
Pleural fluid	
Erythrocyte count	250/mm <sup>3</sup>
Leukocyte count	6000/mm <sup>3</sup>
Segmented neutrophils	30%
Lymphocytes	70%
Glucose	95 mg/dL
Protein	5.5 g/dL
Triglycerides	20 mg/dL
Amylase	10 U/L
LDH	80 U/L
pH	7.45

Gram stain of the fluid shows lymphocytes. Cultures of the fluid are pending. Which of the following is the most likely diagnosis?

- (A) Chylothorax
- (B) Congestive heart failure
- (C) Empyema
- (D) Mesothelioma
- (E) Pulmonary embolus
- (F) Tuberculous pleuritis

10. A 32-year-old woman comes to the office because of a 3-day history of temperatures to 39.0°C (102.2°F), chills, sweating, and diarrhea. Five days ago, she returned from a 2-week trip to rural Pakistan. Today, temperature is 36.0°C (96.8°F), pulse is 50/min, respirations are 12/min, and blood pressure is 110/70 mm Hg. On physical examination, the abdomen is soft and nontender; there are no masses or organomegaly. Hemoglobin concentration is 13 g/dL and leukocyte count is 5800/mm<sup>3</sup>. Test of the stool for occult blood is positive; microscopic examination shows leukocytes. Which of the following is the most likely explanation for this patient's diarrhea?

- (A) Abnormal intestinal motility
- (B) Inflammatory process
- (C) Malabsorption
- (D) Secretory process

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11. A 57-year-old man comes to the office because of a 2-week history of fatigue and light-headedness. He has hypertension treated with a long-acting calcium-channel blocking agent. Blood pressure is 150/90 mm Hg. Physical examination shows no other abnormalities. Hemoglobin concentration is 8.6 g/dL and serum creatinine concentration is 1.3 mg/dL. Test of the stool for occult blood is positive. Which of the following is the most appropriate next step in diagnosis?

- (A) Colonoscopy
- (B) Esophagogastroduodenoscopy
- (C) Small-bowel enteroscopy
- (D) Splenoportography
- (E) Technetium 99m scan
- (F) Upper gastrointestinal series

12. A 27-year-old man comes to the office because of a 1-day history of yellow-colored eyes, a 3-day history of nasal congestion, and a 2-day history of a temperature of 38.9°C (102.0°F). The patient has had one previous episode of yellow-colored eyes after an episode of extreme binge-drinking during college. Treatment with acetaminophen and pseudoephedrine has resolved his fever and is improving his nasal congestion; he takes no other medications. He occasionally drinks alcoholic beverages; he consumed his most recent alcoholic beverage 7 days ago. He does not smoke cigarettes or use illicit drugs. Physical examination shows scleral icterus and mild jaundice. The pharynx is erythematous with no exudates; there is no lymphadenopathy. The liver span is 10 cm and the liver edge is nontender and palpated just below the right costal margin. Results of laboratory studies are shown:

Hematocrit	44%
Leukocyte count	4800/mm <sup>3</sup>
Segmented neutrophils	50%
Lymphocytes	45%
Monocytes	5%
Reticulocyte count	1%
Serum	
Bilirubin	
Total	3.8 mg/dL
Direct	0.3 mg/dL
Alkaline phosphatase	50 U/L
AST	14 U/L
ALT	18 U/L

Which of the following is the most likely diagnosis?

- (A) Acetaminophen toxicity
  - (B) Alcoholic hepatitis
  - (C) Gilbert syndrome
  - (D) Glucose 6-phosphate dehydrogenase deficiency
  - (E) Hepatitis A
  - (F) Stevens-Johnson syndrome
13. A 59-year-old man with obesity comes to the office because of a 24-hour history of severe, constant pain in the right upper quadrant of the abdomen. Temperature is 38.9°C (102.0°F). Physical examination shows signs of peritoneal irritation in the right upper quadrant. Results of laboratory studies are shown:

Leukocyte count	16,000/mm <sup>3</sup>
Serum	
Bilirubin (total)	1.5 mg/dL
Alkaline phosphatase	110 U/L
AST	180 U/L

HIDA scan shows activity in the liver, common hepatic duct, and duodenum but no activity in the gallbladder. Ultrasonography shows cholelithiasis and a normal-diameter common duct. Which of the following is the most likely explanation for these findings?

- (A) Impacted stone at the ampulla of Vater and pus in the biliary ducts
- (B) Infected bile that has refluxed in the pancreatic duct
- (C) Obstructed cystic duct and an acutely inflamed gallbladder wall
- (D) Peristaltic activity of the gallbladder wall that is attempting to dislodge a calculus impacted at the cystic duct
- (E) Primary infection of the subhepatic space produced by bacteria from the gastrointestinal tract

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14. A 37-year-old woman, gravida 5, para 4, comes to the office at 27 weeks' gestation because of a 12-hour history of fever, chills, and bilateral flank pain. In the first trimester, the patient had two episodes of asymptomatic bacteriuria caused by *Escherichia coli* that were treated with 5-day courses of oral ampicillin therapy. During her third pregnancy, she was hospitalized for treatment of acute pyelonephritis. Temperature is 38.5°C (101.3°F), pulse is 120/min, respirations are 18/min, and blood pressure is 130/85 mm Hg. Physical examination shows bilateral costovertebral angle tenderness. The uterus is consistent in size with a 27-week gestation. Results of laboratory studies are shown:

Hematocrit	38%
Leukocyte count	16,000/mm <sup>3</sup>
Segmented neutrophils	87%
Bands	2%
Lymphocytes	11%
Platelet count	220,000/mm <sup>3</sup>
Urine	
WBC	too numerous to count
WBC casts	present
Bacteria	numerous

Which of the following is the most appropriate pharmacotherapy?

- (A) Intravenous ceftriaxone
  - (B) Intravenous vancomycin
  - (C) Oral amoxicillin
  - (D) Oral ciprofloxacin
  - (E) Oral trimethoprim-sulfamethoxazole
15. An 18-year-old man comes to the office because of a 2-day history of headache, bilateral ankle swelling, and generalized fatigue. The patient reports that his urine is cola-colored. Ten days ago, he had a severe sore throat. Blood pressure is 174/104 mm Hg. Physical examination shows 2+ pedal edema bilaterally. This patient is most likely to have which of the following sets of urinalysis findings?

	Blood	Protein	RBC (/hpf)	WBC (/hpf)	Casts	Other Microscopic Findings
(A)	None	none	none	none	hyaline	none
(B)	None	4+	none	none	none	oval fat bodies
(C)	Trace	1+	0–5	>50	none	WBC clumps
(D)	1+	1+	0–5	0–5	pigmented granular	renal tubular epithelial cells
(E)	1+	1+	5–10	10–20	none	eosinophils
(F)	3+	1+	>50	none	RBC	none
(G)	4+	1+	none	none	pigmented granular	squamous epithelial cells
(H)	4+	1+	10–20 dysmorphic	none	none	none

16. A 47-year-old woman comes to the office because of a 2-year history of involuntary loss of urine when she moves suddenly, hears running water, puts her hands into water, or goes out into cold temperatures. The patient's symptoms are not associated with coughing, laughing, lifting, or straining. She reports no pain with urination or blood in her urine. Physical examination shows no abnormalities. There is no urethral hypermobility or genital prolapse. Which of the following is the most likely diagnosis?

- (A) Cystitis
- (B) Detrusor instability
- (C) Multiple sclerosis
- (D) Urethritis
- (E) Urinary stress incontinence

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17. An 82-year-old man is brought to the office because of a 1-hour history of progressive confusion. During the past 3 days, the patient has had increased thirst and pain with urination. He has type 2 diabetes mellitus controlled with diet. He responds only to his name and does not follow commands. Temperature is 36.0°C (96.8°F), pulse is 90/min, respirations are 22/min, and blood pressure is 100/60 mm Hg. Physical examination shows poor skin turgor. Neurologic examination shows no focal findings. Which of the following is most likely to confirm the cause of this patient's confusion?
- (A) Arterial blood gas analysis
  - (B) CT scan of the head
  - (C) ECG
  - (D) Serum glucose concentration
  - (E) Urine toxicology screening

18. A 22-year-old woman comes to the office for counseling prior to conception. During the past 6 months, she has had generalized fatigue and weight gain that she attributes to a new job that requires her to sit at a desk for long hours. She has not used contraception for 1 year and wishes to conceive soon. Menses occur at irregular 6- to 8-week intervals and last 4 to 6 days. She has no history of serious illness and takes no medications. She is 165 cm (5 ft 5 in) tall and weighs 82 kg (180 lb); BMI is 30 kg/m<sup>2</sup>. Vital signs are within normal limits. Physical examination, including pelvic examination, shows no abnormalities. Results of serum laboratory studies are shown:

Thyroid-stimulating hormone	12 µU/mL
Dehydroepiandrosterone sulfate	1.5 µg/mL (N=0.5–5.4)
Follicle-stimulating hormone	3.5 mIU/mL
β-hCG	undetectable
Luteinizing hormone	2.2 mIU/mL
Prolactin	4.2 ng/mL

Which of the following is the most likely diagnosis?

- (A) Hypothyroidism
  - (B) Pituitary adenoma
  - (C) Polycystic ovarian syndrome
  - (D) Pregnancy
  - (E) Premature ovarian failure
19. A 66-year-old woman comes to the office because of a 1-month history of severe stiffness of the shoulders and hips. She has had generalized fatigue for the past 2 months and has had a 2.3-kg (5-lb) weight loss during this period. Examination of the shoulders and hips shows no abnormalities. There is no tenderness over the temporal arteries. Erythrocyte sedimentation rate is 80 mm/h. Which of the following is the most likely diagnosis?
- (A) Ankylosing spondylitis
  - (B) Bone metastases
  - (C) Degenerative joint disease
  - (D) Osteomyelitis
  - (E) Polymyalgia rheumatica
  - (F) Polymyositis
  - (G) Pulmonary osteoarthropathy
  - (H) Rheumatoid arthritis
  - (I) Systemic lupus erythematosus arthritis
  - (J) Systemic sclerosis (scleroderma)

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20. A 23-year-old woman comes to the office for a follow-up examination. Two weeks ago, serologic testing for syphilis was positive, a rapid plasma reagin (RPR) was reactive at 1:8, and fluorescent treponemal antibody absorption (FTA-ABS) test was negative. The physician determines that the patient does not have syphilis. Which of the following is the most likely rationale for sequential screening tests in this patient?
- (A) High positive predictive value of RPR and high negative predictive value of FTA-ABS
  - (B) High sensitivity and low specificity of RPR and FTA-ABS
  - (C) High sensitivity of RPR and high specificity of FTA-ABS
  - (D) High specificity and low sensitivity of RPR and FTA-ABS
  - (E) High specificity of RPR and high sensitivity of FTA-ABS

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**Answer Form for Ambulatory Care Sample Questions**

**(Questions 1–20)**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_

- 11. \_\_\_\_\_
- 12. \_\_\_\_\_
- 13. \_\_\_\_\_
- 14. \_\_\_\_\_
- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. \_\_\_\_\_
- 20. \_\_\_\_\_

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**Answer Key for Ambulatory Care Sample Questions**

**(Questions 1–20)**

- |     |   |     |   |
|-----|---|-----|---|
| 1.  | A | 11. | A |
| 2.  | C | 12. | C |
| 3.  | C | 13. | C |
| 4.  | C | 14. | A |
| 5.  | D | 15. | F |
| 6.  | A | 16. | B |
| 7.  | E | 17. | D |
| 8.  | E | 18. | A |
| 9.  | F | 19. | E |
| 10. | B | 20. | C |