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PRACTICE QUESTIONS

Dubai Health Authority (DHA)

INTMC

Consultant Internal Medicine

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Dubai Health Authority (DHA) INTMC , each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, INTMC
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

MULTIPLE CHOICE

A 58-year-old man presents 4 hours after onset of crushing retrosternal chest pain with ST-segment elevation of 3 mm in leads V1–V4. He is hemodynamically stable. Which of the following are the most appropriate immediate management steps? (Choose three.)

- ☒ **A** Aspirin 300 mg chewed
- ☐ **B** Sublingual nitroglycerin as first-line reperfusion therapy
- ☒ **C** Primary percutaneous coronary intervention within 90 minutes of first medical contact
- ☒ **D** Intravenous thrombolysis if primary PCI is not available within 120 minutes
- ☐ **E** Beta-blocker administration only after 24 hours of hemodynamic stability
- ☐ **F** High-flow oxygen via face mask regardless of oxygen saturation

ANSWER A • C • D

WHY In ST-elevation myocardial infarction (STEMI), chewed aspirin (A) is given immediately to all patients without contraindication. Primary PCI is the preferred reperfusion strategy when achievable within 90 minutes of first medical contact (C). If PCI is not available within 120 minutes, fibrinolytic therapy is indicated (D). Sublingual nitroglycerin is for symptom relief and is not a reperfusion strategy (B). Early beta-blockade within 24 hours is appropriate in stable patients without contraindications (E is too restrictive). Supplemental oxygen is indicated only when SpO₂ < 90% (F).

QUESTION 2

MULTIPLE CHOICE

A 52-year-old woman with type 2 diabetes mellitus, hypertension and dyslipidemia has an HbA1c of 8.9%, eGFR of 55 mL/min/1.73 m² and albuminuria. According to current evidence-based guidelines, which of the following medications should be included in her regimen for proven cardiorenal benefit? (Choose two.)

- ☒ **A** Empagliflozin
- ☐ **B** Sitagliptin
- ☒ **C** Liraglutide
- ☐ **D** Glipizide
- ☐ **E** Pioglitazone
- ☐ **F** Acarbose

ANSWER A - C

WHY SGLT2 inhibitors such as empagliflozin (A) have proven cardiorenal benefit in patients with type 2 diabetes with established cardiovascular disease or chronic kidney disease, and reduce heart failure hospitalization and progression of kidney disease. GLP-1 receptor agonists such as liraglutide (C) reduce major adverse cardiovascular events in patients with established atherosclerotic cardiovascular disease. DPP-4 inhibitors like sitagliptin (B), sulfonylureas like glipizide (D), TZDs like pioglitazone (E) and alpha-glucosidase inhibitors like acarbose (F) have not demonstrated the same cardiorenal outcome benefits.

QUESTION 3

SINGLE CHOICE

A 64-year-old man with a 40-pack-year smoking history presents with progressive dyspnea and a productive cough. Spirometry shows FEV1 of 55% predicted and an FEV1/FVC ratio of 0.62. According to GOLD criteria, what is the most appropriate classification of airflow limitation severity?

- ☐ A GOLD 1: Mild
- ☒ B GOLD 2: Moderate
- ☐ C GOLD 3: Severe
- ☐ D GOLD 4: Very severe
- ☐ E Not classifiable because bronchodilator reversibility testing was not performed

ANSWER B

WHY The GOLD spirometric classification of airflow limitation severity is based on post-bronchodilator FEV1 in patients with FEV1/FVC < 0.70: GOLD 1 (mild) FEV1 ≥ 80%, GOLD 2 (moderate) 50% ≤ FEV1 < 80%, GOLD 3 (severe) 30% ≤ FEV1 < 50%, GOLD 4 (very severe) FEV1 < 30%. With FEV1 of 55%, the patient falls into GOLD 2: Moderate (B). Spirometric grading can be performed once post-bronchodilator obstruction is confirmed; severity grading does not require additional reversibility testing (E is incorrect).

QUESTION 4

SINGLE CHOICE

A previously healthy 45-year-old man presents with painless jaundice, weight loss of 6 kg and a palpable, non-tender gallbladder (Courvoisier sign). What is the most likely diagnosis?

- ☐ A Acute viral hepatitis
- ☐ B Choledocholithiasis
- ☒ C Carcinoma of the head of the pancreas
- ☐ D Acute cholecystitis
- ☐ E Primary biliary cholangitis

ANSWER C

WHY Courvoisier's sign — a palpable, non-tender, distended gallbladder in a patient with painless jaundice — is classically associated with malignant obstruction of the common bile duct, most commonly carcinoma of the head of the pancreas (C). In choledocholithiasis and acute cholecystitis the gallbladder is typically tender and not significantly distended due to chronic inflammation and fibrosis. Acute viral hepatitis and primary biliary cholangitis do not produce a palpable gallbladder.

QUESTION 5

SINGLE CHOICE

A 38-year-old woman presents with facial puffiness, frothy urine and bilateral leg edema for 2 weeks. Her blood pressure is 150/95 mmHg. Urinalysis shows 3+ proteinuria, and 24-hour urinary protein is 5.8 g. Serum albumin is 2.1 g/dL and serum creatinine is 0.9 mg/dL. What is the most likely diagnosis?

- ☒ **A Minimal change disease**
- ☐ B Focal segmental glomerulosclerosis
- ☐ C Membranous nephropathy
- ☐ D Diabetic nephropathy
- ☐ E IgA nephropathy

ANSWER A

WHY The clinical picture describes full nephrotic syndrome (proteinuria > 3.5 g/day, hypoalbuminemia < 3.0 g/dL, edema, hyperlipidemia implied) with preserved renal function in an adult. In adults, the most common primary causes of nephrotic syndrome are membranous nephropathy and focal segmental glomerulosclerosis; minimal change disease (A) is the most common cause in children but remains a leading cause in adults. Membranous nephropathy (C) and FSGS (B) are also possible. However, given the acute (2-week) presentation in a previously healthy young adult without diabetes (D) and the absence of hematuria typical of IgA nephropathy (E), minimal change disease is the most likely single answer consistent with classic presentation.

QUESTION 6

SINGLE CHOICE

A 60-year-old man presents with fatigue, splenomegaly, and a complete blood count showing WBC $78 \times 10^9/L$, hemoglobin 10.2 g/dL, platelets $320 \times 10^9/L$. Peripheral smear shows neutrophils at all stages of maturation, basophilia, and eosinophilia. The Philadelphia chromosome (BCR-ABL) is detected by FISH. What is the most appropriate first-line therapy?

- ☐ A Hydroxyurea alone
- ☐ B Allogeneic hematopoietic stem cell transplantation as initial therapy
- ☒ C Imatinib, a tyrosine kinase inhibitor
- ☐ D Prednisolone and vincristine
- ☐ E Rituximab-based chemotherapy

ANSWER C

WHY The clinical and laboratory findings are diagnostic of chronic myeloid leukemia (CML) in chronic phase. The presence of the BCR-ABL fusion gene (Philadelphia chromosome) confirms the diagnosis. The standard first-line therapy is a BCR-ABL tyrosine kinase inhibitor (TKI) such as imatinib (C), which has transformed CML into a chronic, manageable disease with near-normal life expectancy. Hydroxyurea (A) is used only for short-term cytoreduction. Allogeneic stem cell transplant (B) is reserved for TKI failure or accelerated/blast phase disease. Prednisolone/vincristine (D) is treatment for lymphoid leukemias, and rituximab (E) is used in B-cell malignancies, neither of which applies to CML.

QUESTION 7

SINGLE CHOICE

A 28-year-old man presents with 3 days of fever, headache, neck stiffness and photophobia. Cerebrospinal fluid analysis shows opening pressure 240 mm H₂O, WBC 2,400/μL with 92% neutrophils, protein 180 mg/dL, and glucose 30 mg/dL (serum glucose 110 mg/dL). Gram stain shows Gram-negative diplococci. What is the most likely causative organism?

- ☐ A Streptococcus pneumoniae
- ☒ B Neisseria meningitidis
- ☐ C Haemophilus influenzae
- ☐ D Listeria monocytogenes
- ☐ E Mycobacterium tuberculosis

ANSWER B

WHY The CSF profile — neutrophilic pleocytosis, elevated protein, and low glucose — is typical of acute bacterial meningitis. The Gram stain finding of Gram-negative diplococci is characteristic of Neisseria meningitidis (B). Streptococcus pneumoniae is Gram-positive lancet-shaped diplococci (A), Haemophilus influenzae is a Gram-negative coccobacillus (C), Listeria is a Gram-positive rod (D), and tuberculous meningitis shows lymphocytic predominance with very low glucose (E).

QUESTION 8

SINGLE CHOICE

A 42-year-old woman presents with weight gain, easy bruising, proximal muscle weakness and hypertension. Examination shows moon facies, central obesity and purple abdominal striae. The 8 AM serum cortisol is elevated and not suppressed after an overnight 1 mg dexamethasone suppression test. What is the most appropriate next step to confirm the etiology?

- ☐ A Midnight salivary cortisol measurement
- ☐ B 24-hour urinary free cortisol
- ☒ C Plasma ACTH measurement
- ☐ D MRI of the pituitary gland
- ☐ E Inferior petrosal sinus sampling

ANSWER C

WHY Cushing syndrome is suggested clinically and confirmed by failure of cortisol suppression on the low-dose (1 mg) dexamethasone test, an elevated 24-hour urinary free cortisol, or elevated late-night salivary cortisol. Once Cushing syndrome is biochemically confirmed, the next essential step is to determine whether it is ACTH-dependent or ACTH-independent by measuring plasma ACTH (C). This guides subsequent imaging: ACTH-independent disease warrants adrenal imaging, while ACTH-dependent disease warrants pituitary MRI. Pituitary MRI (D) and inferior petrosal sinus sampling (E) are later steps in the workup after ACTH-dependence is established.

QUESTION 9

SINGLE CHOICE

A 30-year-old woman presents with a 6-week history of fatigue, arthralgias, malar rash sparing the nasolabial folds, and oral ulcers. Laboratory tests show hemoglobin 9.8 g/dL, positive ANA, and anti-double-stranded DNA antibodies. Urinalysis shows proteinuria and red blood cell casts. What is the most likely diagnosis?

- ☐ A Rheumatoid arthritis
- ☒ B Systemic lupus erythematosus
- ☐ C Dermatomyositis
- ☐ D Mixed connective tissue disease
- ☐ E Primary antiphospholipid syndrome

ANSWER B

WHY The combination of malar rash sparing the nasolabial folds, oral ulcers, anemia, positive ANA, anti-dsDNA antibodies, and renal involvement (proteinuria with red blood cell casts suggesting lupus nephritis) is diagnostic of systemic lupus erythematosus (B). Rheumatoid arthritis (A) does not cause malar rash or RBC casts. Dermatomyositis (C) features heliotrope rash and Gottron papules. Mixed connective tissue disease (D) has overlapping features but anti-dsDNA and lupus nephritis favor SLE. Primary antiphospholipid syndrome (E) presents with thrombosis or pregnancy morbidity without the systemic features described.