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PRACTICE QUESTIONS

Ministry of Health Kuwait Medical Licensing Department

SEMMD

Emergency Medicine for Senior

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Ministry of Health Kuwait Medical Licensing Department **SEMMD**, 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, **SEMMD**
- 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 62-year-old man collapses in the ED waiting area. On initial assessment he is unresponsive, not breathing normally, and the monitor shows ventricular fibrillation. Which of the following are the most appropriate immediate interventions? (Choose three.)

- ☒ **A** Begin high-quality chest compressions at a depth of at least 5 cm and a rate of 100–120 per minute
- ☒ **B** Deliver an unsynchronised biphasic shock at 150–200 J as soon as a defibrillator is available
- ☐ **C** Administer intravenous adrenaline 1 mg only after the second defibrillation attempt
- ☐ **D** Secure the airway first with endotracheal intubation before any defibrillation attempt
- ☒ **E** Continue chest compressions while the defibrillator is charging and resume immediately after the shock

ANSWER A • B • E

WHY For VF/pulseless VT in ACLS, immediate high-quality CPR (≥ 5 cm, 100–120/min) and early unsynchronised defibrillation are the priorities; adrenaline 1 mg IV is given after the second shock in shockable-refractory VF/VT, not before. Hands-on-chest compressions during charging and immediately after the shock minimise the peri-shock pause, which is associated with higher ROSC and survival. Airway management is important but should not delay defibrillation in the first minutes.

QUESTION 2

MULTIPLE CHOICE

A 55-year-old diabetic woman presents with central chest pressure for 40 minutes, radiating to the jaw, with diaphoresis. ECG shows 2 mm ST elevation in leads II, III and aVF. Which of the following interventions are indicated within the first hours of presentation? (Choose two.)

- ☒ **A** Immediate loading with aspirin 150–300 mg chewed
- ☒ **B** Fibrinolytic therapy if primary PCI cannot be performed within 120 minutes of first medical contact
- ☐ **C** Intravenous fluids of at least 2 litres before any reperfusion therapy
- ☐ **D** Sublingual nitroglycerin before any ECG is obtained
- ☐ **E** Calcium gluconate as the first pharmacological agent

ANSWER **A - B**

WHY Initial therapy for STEMI (here, inferior wall — II, III, aVF) includes chewable aspirin and reperfusion; if primary PCI is not achievable within 120 minutes of first medical contact, fibrinolysis is indicated. Routine large-volume IV fluids are not standard and can worsen pulmonary oedema; nitroglycerin should not precede ECG; calcium is not part of routine STEMI care.

QUESTION 3

SINGLE CHOICE

A 30-year-old man is brought in after a high-speed motor vehicle collision. He is haemodynamically unstable with a positive FAST scan. The most appropriate next step in management is:

- ☐ A CT abdomen with contrast to identify the bleeding source
- ☐ B Diagnostic peritoneal lavage to confirm haemoperitoneum
- ☒ C Emergency laparotomy for damage-control surgery
- ☐ D Angiographic embolisation in the interventional radiology suite
- ☐ E Observation in the resuscitation bay with serial haemoglobin checks

ANSWER C

WHY A haemodynamically unstable blunt or penetrating trauma patient with a positive FAST scan has intra-abdominal bleeding and requires immediate surgical control via damage-control laparotomy. CT abdomen is reserved for haemodynamically stable patients; DPL is largely obsolete where FAST is available; angioembolisation is for stable patients with focal arterial bleeding; observation is inappropriate in an unstable patient with confirmed haemoperitoneum.

QUESTION 4

SINGLE CHOICE

An 80-year-old woman with atrial fibrillation presents with acute left-sided weakness and aphasia. Symptoms began 90 minutes ago. Her blood glucose is normal. CT brain shows no haemorrhage. The most appropriate next step is:

- ☐ A Aspirin 300 mg orally
- ☒ B Intravenous thrombolysis (alteplase) within the approved time window if no contraindications exist
- ☐ C Subcutaneous low-molecular-weight heparin
- ☐ D Oral warfarin with bridging
- ☐ E Watchful waiting until repeat CT in 24 hours

ANSWER B

WHY Within 4.5 hours of symptom onset, IV thrombolysis with alteplase (or tenecteplase) is the standard reperfusion therapy for eligible acute ischaemic stroke patients without haemorrhage on CT. Aspirin is given later (typically after thrombolysis, at 24 hours, or when thrombolysis is contraindicated). Anticoagulation is not started acutely in cardioembolic stroke because of haemorrhagic transformation risk.

QUESTION 5

SINGLE CHOICE

A 45-year-old man with severe facial trauma cannot be intubated by direct laryngoscopy, and bag-mask ventilation is inadequate. The next step according to the difficult airway algorithm is:

- ☒ **A** Cricothyroidotomy
- ☐ **B** Repeat direct laryngoscopy with a longer blade
- ☐ **C** Nasotracheal intubation
- ☐ **D** Insertion of a nasogastric tube
- ☐ **E** Percutaneous tracheostomy

ANSWER A

WHY In the 'cannot intubate, cannot oxygenate' (CICO) scenario the immediate rescue is a front-of-neck cricothyroidotomy. Repeating laryngoscopy or attempting blind nasal intubation risks further delay and bleeding; nasogastric tubes do not secure the airway; percutaneous tracheostomy is a slower, more complex procedure not used in the emergency CICO rescue.

QUESTION 6

SINGLE CHOICE

A 25-year-old woman is admitted with fever 39.5°C, hypotension 80/50 mmHg, tachycardia 125/min, and a presumed urinary source of infection. After 30 mL/kg of isotonic crystalloid she remains hypotensive. The most appropriate next step is:

- ☐ A Add a second 30 mL/kg crystalloid bolus and reassess
- ☒ B Start broad-spectrum intravenous antibiotics within one hour and begin a norepinephrine infusion
- ☐ C Start dobutamine as the first-line vasopressor
- ☐ D Administer intravenous hydrocortisone only if hypotension persists for more than 24 hours
- ☐ E Restrict further fluids to avoid pulmonary oedema

ANSWER B

WHY Sepsis with persistent hypotension after initial fluid resuscitation is septic shock; the Surviving Sepsis guidelines recommend broad-spectrum antibiotics within one hour and a norepinephrine infusion as the first-line vasopressor. Dobutamine is for cardiogenic or low-output states; a second large bolus would be appropriate if the patient remained fluid-responsive, but antibiotics and vasopressors should not be delayed; the one-hour bundle emphasises early antimicrobials.

QUESTION 7

SINGLE CHOICE

Which of the following best defines septic shock in the current adult sepsis definitions used in emergency practice?

- ☐ A Suspected infection with a systolic blood pressure below 90 mmHg
- ☐ B Suspected infection with a quick Sequential Organ Failure Assessment (qSOFA) score ≥ 2
- ☒ C Suspected or confirmed infection with persisting hypotension requiring vasopressors to maintain MAP ≥ 65 mmHg and a serum lactate > 2 mmol/L despite adequate fluid resuscitation
- ☐ D Any bacteraemia with a fever above 38°C
- ☐ E Positive blood cultures within 24 hours of admission

ANSWER C

WHY Per the Sepsis-3 framework, septic shock is defined as sepsis with persisting hypotension requiring vasopressors to maintain MAP ≥ 65 mmHg AND a serum lactate > 2 mmol/L despite adequate fluid resuscitation. A single hypotensive reading without vasopressor requirement or hyperlactataemia does not equal septic shock; qSOFA is a screening tool, not a definition.

QUESTION 8

SINGLE CHOICE

A 12-year-old develops tongue swelling, stridor, wheeze and hypotension within minutes of receiving an antibiotic in the ED. The single most important first-line drug and route is:

- ☒ **A** Intramuscular adrenaline 0.5 mg (1:1000) into the anterolateral thigh
- ☐ **B** Intravenous adrenaline 1 mg (1:10,000) bolus
- ☐ **C** Intravenous hydrocortisone 200 mg
- ☐ **D** Intravenous chlorpheniramine 10 mg
- ☐ **E** Inhaled salbutamol via nebuliser

ANSWER A

WHY Anaphylaxis is treated first with intramuscular adrenaline (0.01 mg/kg, max 0.5 mg, of 1:1000) into the anterolateral thigh — this delivers rapid reliable absorption and is the only first-line intervention that reduces mortality. IV adrenaline (1:10,000) is reserved for cardiac arrest or refractory shock with monitoring; steroids and antihistamines are adjuncts and act too slowly to treat airway or circulatory collapse.

QUESTION 9

SINGLE CHOICE

A 28-year-old woman is brought to the ED after ingesting an unknown amount of her mother's sustained-release verapamil 2 hours ago. She has bradycardia 38/min and hypotension 78/40 mmHg. The most appropriate first-line treatment is:

- ☐ A Atropine 3 mg IV bolus
- ☒ B High-dose insulin–euglycaemia therapy with intravenous calcium
- ☐ C Activated charcoal only if ingestion was within 1 hour
- ☐ D Synchronised cardioversion at 200 J
- ☐ E Intravenous sodium bicarbonate as the first-line antidote

ANSWER B

WHY Severe calcium-channel blocker overdose with bradycardia and hypotension is treated with high-dose insulin–euglycaemia therapy (regular insulin bolus 1 U/kg followed by infusion, with dextrose to maintain euglycaemia) and IV calcium (calcium chloride or gluconate) as the first-line interventions. Atropine is rarely effective in severe CCB poisoning; activated charcoal is useful but does not replace haemodynamic support; cardioversion is for tachyarrhythmias; sodium bicarbonate is for sodium-channel blocker toxicity (e.g., TCAs).