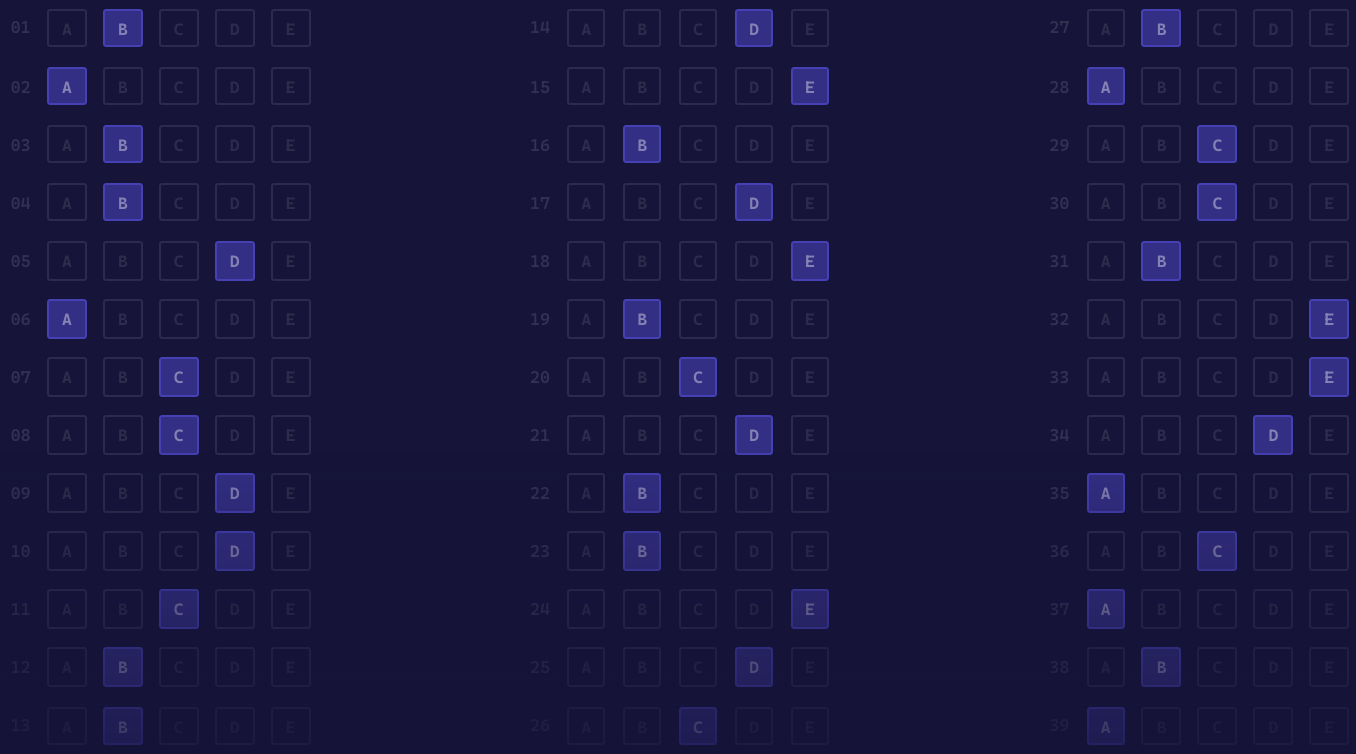
MOMETRIX
SMARTER PREP. BETTER RESULTS.



PRACTICE QUESTIONS

International Board of Specialty Certifications (IBSC)

CCP–C

Certified Critical Care Paramedic

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

WEB www.mometrix.net

SUPPORT support@mometrix.net

Before you begin

What this is

9 practice questions for International Board of Specialty Certifications (IBSC) `CCP-C`, 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, `CCP-C`
- the question number
- the email address on your order

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

mometrix.net

QUESTION 1 SINGLE CHOICE

A 54-year-old patient with a history of cirrhosis presents with altered mental status, asterixis, and a serum ammonia level of 145 µmol/L. The patient is intubated and hypotensive with a MAP of 58 mmHg. Which medication is most appropriate to address the underlying cause of the encephalopathy while supporting hemodynamics?

A Lactulose 30 g per rectum

B Ceftriaxone 2 g IV

C Norepinephrine infusion titrated to a MAP of 65 mmHg

D Hydroxocobalamin 5 g IV

ANSWER B

WHY Cirrhotic patients with elevated ammonia and altered mental status are presenting with hepatic encephalopathy, most commonly precipitated by infection (such as spontaneous bacterial peritonitis) or GI bleeding. Empiric broad-spectrum IV antibiotics such as ceftriaxone treat the underlying precipitant and are a guideline-supported intervention. Lactulose reduces ammonia but does not treat the precipitating infection. Norepinephrine may be needed for refractory shock but does not address the underlying cause of the encephalopathy. Hydroxocobalamin is the antidote for cyanide toxicity, not hepatic encephalopathy.

mometrix.net

QUESTION 2 SINGLE CHOICE

A patient presents after a high-voltage electrical injury. Cardiac monitoring shows a regular narrow-complex rhythm, and the 12-lead ECG demonstrates normal sinus rhythm without ST-segment changes. According to current guidance, what is the most appropriate disposition plan for the critical care paramedic?

A Release the patient in the field if asymptomatic with a normal ECG

B Transport to a cardiac-receiving facility for continuous monitoring and serial ECGs

C Transport to the nearest emergency department for observation only

D Initiate helicopter transport to a burn center regardless of ECG findings

ANSWER B

WHY High-voltage electrical injury (greater than 1,000 V) can cause delayed cardiac dysrhythmias and rhabdomyolysis with hyperkalemia, even when the initial ECG is normal. Current guidance recommends continuous cardiac monitoring, serial ECGs, and laboratory evaluation including cardiac biomarkers and CK at a cardiac-receiving facility. Field release is not appropriate. Transport decisions should be based on cardiac and systemic findings, not automatic burn-center transfer without indication.

mometrix.net

QUESTION 3 MULTIPLE CHOICE

A patient with acute respiratory distress syndrome (ARDS) is being mechanically ventilated with the following settings: tidal volume 6 mL/kg predicted body weight, PEEP 12 cm H2O, FiO2 0.80, plateau pressure 32 cm H2O, and arterial blood gas showing PaO2 62 mmHg. Which interventions are appropriate at this time? (Choose two.)

A Increase tidal volume to 8 mL/kg predicted body weight to improve oxygenation

B Initiate prone positioning for at least 12 hours per day

C Reduce PEEP to 8 cm H2O to lower plateau pressure

D Begin neuromuscular blockade with cisatracurium infusion

E Increase FiO2 until SpO2 reaches 100%

ANSWER **B** · **D**

WHY Prone positioning for 12 or more hours per day improves oxygenation and reduces mortality in moderate-to-severe ARDS (PaO2/FiO2 ratio less than 150). Early, short-duration neuromuscular blockade (48 hours) with cisatracurium has been shown to reduce ventilator days and mortality in moderate-to-severe ARDS. Tidal volume should remain at 6 mL/kg predicted body weight; increasing to 8 mL/kg risks volutrauma. PEEP should be titrated up, not down, in severe ARDS to maintain alveolar recruitment. Targeting SpO2 of 100% with high FiO2 increases oxygen toxicity risk; SpO2 88–95% is the typical target.

mometrix.net

QUESTION 4 SINGLE CHOICE

A patient is diagnosed with a tension pneumothorax on the right side after blunt chest trauma. Vital signs are BP 78/44 mmHg, HR 138, RR 32, SpO2 84%. After immediate needle decompression, the patient's blood pressure improves to 92/58 mmHg and SpO2 to 91%. Breath sounds remain decreased on the right. What is the most appropriate next intervention?

A Repeat needle decompression at the same site

B Perform a second needle decompression at the fifth intercostal space anterior axillary line

C Perform tube thoracostomy (chest tube) placement

D Initiate positive pressure ventilation to recruit collapsed alveoli

ANSWER C

WHY Needle decompression is a temporizing measure for tension pneumothorax. Definitive management requires tube thoracostomy (chest tube) placement to evacuate air and maintain lung re-expansion. Repeat needle decompression may be needed if there is recurrent deterioration but is not the definitive intervention. Initiating positive pressure ventilation without chest tube decompression can worsen the tension pneumothorax.

mometrix.net

QUESTION 5 SINGLE CHOICE

A 67-year-old patient presents with an acute inferior ST-elevation myocardial infarction (STEMI). Heart rate is 42 bpm and blood pressure is 88/56 mmHg. The cardiac monitor shows sinus bradycardia with second-degree type I AV block (Mobitz I) at the AV node. Which intervention is the most appropriate first step?

A Transcutaneous pacing

B **Atropine 1 mg IV bolus**

C Immediate synchronized cardioversion

D Adenosine 6 mg rapid IV push

ANSWER **B**

WHY Symptomatic bradycardia in the setting of an inferior STEMI is often due to increased vagal tone or AV nodal ischemia from right coronary artery occlusion. Atropine 1 mg IV is the appropriate first-line pharmacologic intervention and may reverse AV nodal block. Transcutaneous pacing is reserved for patients unresponsive to atropine who remain hemodynamically unstable. Synchronized cardioversion is not indicated for bradyarrhythmias. Adenosine would worsen the bradycardia and is not appropriate.

mometrix.net

QUESTION 6 MULTIPLE CHOICE

A patient with severe sepsis requires fluid resuscitation and vasopressor support to maintain a MAP of 65 mmHg or greater. Which statements about vasoactive medications in septic shock are accurate? (Choose two.)

A **Norepinephrine is considered the first-line vasopressor in septic shock**

B Vasopressin should be started as the initial single agent before any other vasopressor

C **Epinephrine may be added when additional vasopressor support is required**

D Dopamine is preferred over norepinephrine due to a lower risk of arrhythmias

E Phenylephrine is recommended as a first-line agent in septic shock

ANSWER **A · C**

WHY Current Surviving Sepsis Campaign guidelines recommend norepinephrine as the first-line vasopressor for septic shock because of its efficacy and lower rate of arrhythmias compared with dopamine. Epinephrine is an acceptable addition when additional hemodynamic support is required after norepinephrine. Vasopressin is generally added as a second-line agent, not as the initial single agent. Dopamine is associated with higher rates of tachyarrhythmias and is no longer preferred. Phenylephrine is not recommended as a first-line agent in septic shock due to its pure alpha effects and risk of reducing splanchnic perfusion.

mometrix.net

QUESTION 7 SINGLE CHOICE

A patient with suspected traumatic brain injury (GCS 6) requires definitive airway management prior to inter facility transport. Pre-intubation vital signs are BP 142/88 mmHg, HR 96, RR 18 with irregular respirations, and SpO2 96% on 15 L non-rebreather. Which induction agent and dose is most appropriate to minimize the risk of intracranial pressure elevation while maintaining hemodynamic stability?

A **Etomidate 0.3 mg/kg IV**

B Ketamine 2 mg/kg IV

C Succinylcholine 1.5 mg/kg IV

D Propofol 2 mg/kg IV

ANSWER **A**

WHY Etomidate provides rapid induction with minimal impact on blood pressure and intracranial pressure, making it a standard induction agent for rapid sequence intubation (RSI) in hemodynamically unstable or borderline trauma patients. Ketamine may also be acceptable and has gained favor in trauma due to hemodynamic stability, but at higher doses can elevate blood pressure and ICP. Succinylcholine is a paralytic, not an induction agent. Propofol can cause hypotension and reduce cerebral perfusion pressure and should be used cautiously in TBI.

mometrix

QUESTION 8 SINGLE CHOICE

A 31-year-old patient is found unresponsive after suspected opioid overdose. Pre-hospital naloxone 4 mg intranasal was administered with no improvement. EMS notes pinpoint pupils, RR 6, and SpO2 82% on room air. Which medication and route is the most appropriate next step for the critical care paramedic?

A **Naloxone 0.04 mg IV titrated to respiratory rate**

B Flumazenil 0.2 mg IV

C Glucagon 1 mg IV

D Activated charcoal 50 g via orogastric tube

ANSWER **A**

WHY For opioid intoxication with severe respiratory depression not responsive to standard pre-hospital dosing, low-dose IV naloxone (0.04 mg) titrated to restore adequate respiratory effort minimizes the risk of precipitating acute withdrawal, severe agitation, and catecholamine surge. Flumazenil is the benzodiazepine antidote and should be avoided in chronic benzodiazepine users due to seizure risk. Glucagon treats beta-blocker or calcium channel blocker overdose. Activated charcoal is not appropriate for an unresponsive patient without a protected airway.

mometrix

QUESTION 9 SINGLE CHOICE

A 48-year-old patient with known seizure disorder has been in generalized convulsive status epilepticus for 25 minutes despite receiving 10 mg IV lorazepam en route. Vital signs: BP 168/96 mmHg, HR 124, RR 16 with assisted ventilation via bag-mask, SpO2 94%. Which second-line agent is most appropriate per current guidelines?

A Phenytoin 20 mg/kg IV at 50 mg/min

B Levetiracetam 60 mg/kg IV (maximum 4500 mg)

C Magnesium sulfate 4 g IV

D Sodium bicarbonate 1 mEq/kg IV

ANSWER B

WHY Current guidelines (ESETT and others) support levetiracetam, fosphenytoin, or valproate as equally effective second-line agents for benzodiazepine-refractory status epilepticus. Levetiracetam 60 mg/kg IV (max 4500 mg) avoids the hypotension and arrhythmia risk associated with phenytoin. Phenytoin is acceptable but carries a higher risk of hypotension and bradyarrhythmias and requires cardiac monitoring. Magnesium sulfate is the treatment for eclampsia-related seizures. Sodium bicarbonate is not indicated unless there is a sodium-channel blocker toxicity or severe acidosis.

mometrix