Emergency Medicine Sample Items

1. A 32-year-old woman comes to the emergency department 3 hours after the sudden onset of a severe headache. The pain is associated with nausea and vomiting. Medical history is noncontributory. She is drowsy but easy to arouse. Her temperature is 37.1°C (98.8°F), pulse is 92/min, respirations are 10/min, and blood pressure is 130/70 mm Hg. Examination of the head shows no abnormalities. Flexion of the neck produces pain. The optic fundi are normal. Motor and sensory examinations show no abnormalities. Cranial nerves are intact. Deep tendon reflexes are symmetric. Babinski sign is present bilaterally. Which of the following is most likely to confirm the diagnosis?

   (A) X-rays of the sinuses
   (B) Carotid duplex ultrasonography
   (C) EEG
   (D) CT scan of the head
   (E) Biopsy of the temporal artery

2. A 24-year-old nulligravid woman is brought to the emergency department after a syncopal episode at work. She has had progressively severe cramps in the lower abdomen over the past 6 hours. She has had spotty vaginal bleeding for 2 days; her last menstrual period began 7 weeks ago. She is diaphoretic and anxious. Her temperature is 37°C (98.6°F), pulse is 130/min, respirations are 26/min, and blood pressure is 80/60 mm Hg. Examination shows blood in the vaginal vault and diffuse abdominal tenderness; there is pain with cervical motion. Which of the following is the most appropriate next step in management?

   (A) Intravenous administration of fluids
   (B) Intravenous administration of broad-spectrum antibiotics
   (C) Transfusion of O-negative blood
   (D) Transfusion of type-specific blood
   (E) Culdocentesis

3. A 15-month-old girl is brought to the emergency department after a generalized tonic-clonic seizure at home. The seizure stopped spontaneously after 2 minutes, and she seemed sleepy afterward. Her temperature prior to arrival was 39.6°C (103.2°F), and paramedics administered rectal acetaminophen. Her parents state that yesterday she had a mild runny nose but otherwise has been well. There is no personal or family history of serious medical illness or seizures. Development has been appropriate for age. On arrival, she is afebrile, alert, and interactive. Physical examination shows a supple neck. Neurologic examination shows no focal findings. Which of the following is the most appropriate next step in management?

   (A) Reassurance
   (B) CT scan of the head
   (C) Oral administration of phenobarbital
   (D) EEG
   (E) Lumbar puncture

4. An 18-year-old man is brought to the emergency department 10 minutes after he sustained a stab wound to his chest. On arrival, he is unresponsive to painful stimuli. His pulse is 130/min, respirations are 8/min and shallow, and palpable systolic blood pressure is 60 mm Hg. He is intubated and mechanically ventilated, and infusion of 0.9% saline is begun. After 5 minutes, his pulse is 130/min, and blood pressure is 70/40 mm Hg. Examination shows a 2-cm wound at the left sixth intercostal space at the midclavicular line. There is jugular venous distention. Breath sounds are normal. The trachea is at the midline. Heart sounds are not audible. Which of the following is the most likely cause of these findings?

   (A) Bronchial disruption
   (B) Hemothorax
   (C) Myocardial infarction
   (D) Pericardial tamponade
   (E) Tension pneumothorax

5. A 27-year-old man is brought to the emergency department 20 minutes after his roommate found him unconscious on their bathroom floor. The patient has a history of intravenous heroin use. He has no history of serious illness and takes no medications. On arrival, he appears cyanotic. He is unresponsive to verbal and painful stimuli. His temperature is 37.1°C (98.8°F), pulse is 80/min, respirations are 4/min, and blood pressure is 110/60 mm Hg. Examination shows new and old needle tracks over the upper and lower extremities. Cardiopulmonary examination shows no abnormalities. Arterial blood gas analysis on room air shows:

pH	7.18
P_{CO_2}	78 mm Hg
P_{O_2}	55 mm Hg
HCO_3^-	29 mEq/L

Which of the following is the best explanation CO for this patient's hypoxemia?

(A) Decreased inspired oxygen tension
(B) Hypoventilation
(C) Impaired diffusion capacity of the lung for carbon monoxide
(D) Right-to-left shunt
(E) Ventilation-perfusion mismatch

Answer Form for Emergency Medicine Advanced Clinical Sample Questions

(Questions 1–5)

1. _____
2. _____
3. _____
4. _____
5. _____

Answer Key for Emergency Medicine Advanced Clinical Sample Questions

(Questions 1–5)

1. D
2. A
3. A
4. D
5. B