Q1. 46 year old male is hospitalized with severe acute pancreatitis. Because of progressive respiratory difficulty, he is intubated and placed on mechanical ventilation. His weight is 70 kg, blood pressure is 110/70 mmHg, and heart rate is 90/min. His respiratory rate is 18/min. Chest x-ray shows patchy opacities bilaterally, consistent with pulmonary edema. His current ventilator setting are: assist control mode, respiratpry rate of 18/min, tidal volume of 450 ml, FiO2 of 40%, and positive end-expiratory pressure (PEEP) of 5 cm H2O. His Blood gas readings are:

pH  7.51

pCO2  22 mmHg

pO2  121 mmHg

Which of the following is the best next step in managing this patient ?

A. Bronchodilator therapy.

B. Decrease FiO2.

C. Decrease respiratory rate.

D. Increase tidal volume.

E. Incentive spirometry.

F. Increase respiratory rate.

Q2. A 63-year-old man is having symptoms of shortness of breath. As part of his workup, an arterial blood gas is done and the PCO2 is 60 mm Hg. Which of the following is the most likely cause for the elevated PCO2?

A. ventilation-perfusion ratio inequality

B. right-to-left shunt

C. impaired diffusion

D. hypoventilation

E. carbon monoxide poisoning

Q3. A 13-year-old boy has periods when he seems to be unresponsive, associated with blinking of his eyes. These are momentary, and he seems normal thereafter. Which of the following is the most effective treatment?

A. phenytoin

B. carbamazepine

C. phenobarbital

D. gabapentin

E. ethosuximide

Q4. A 64-year-old woman is found to have a left-sided pleural effusion on chest x-ray. Analysis of the pleural fluid reveals a ratio of concentration of total protein in pleural fluid to serum of 0.38, a lactate dehydrogenase (LDH) level of 125 IU, and a ratio of LDH concentration in pleural fluid to serum of 0.46. Which of the following disorders is most likely in this patient?

A. Bronchogenic carcinoma

B. Congestive heart failure

C. Pulmonary embolism

D. Sarcoidosis

E. Systemic lupus erythematosus

Q5. After undergoing surgical resection for carcinoma of the stomach, a 60-year-old male develops numbness in his feet. On exam, he has lost proprioception in the lower extremities and has a wide-based gait and positive Romberg sign. A peripheral blood smear shows macrocytosis and hypersegmented polymorphonuclear leukocytes. The neurologic dysfunction is secondary to a deficiency of which vitamin?

A. Folic acid

B. Thiamine

C. Vitamin K

D. Vitamin B12

Q6. On routine physical exam, a young woman is found to have a thyroid nodule. There is no pain, hoarseness, hemoptysis, or local symptoms. Serum TSH is normal. Which of the following is the best next step in evaluation?

A. Ultrasonography

B. Thyroid scan

C. Surgical resection

D. Fine needle aspiration of thyroid

Q7. A 65 year-old male with back pain, nephritic syndrome and anemia present to the ER. Ultrasound shows normal kidney size. His creatinine is 500. Which diagnosis best fits the scenario?

A. Polycystic kidney disease

B. Chronic GN

C. Multiple myeloma

D. Diabetic nephropathy

E. Analgesic abuse

Q8. A 76 year old man from a nursing home is brought into the emergency department after staff notice a decreased level of consciousness. He has Type II diabetes mellitus and is diagnosed with hyperosmolar state. All of the following may be features of hyperosmolar state EXCEPT:

A. Hyponatremia

B. Positive ketones on urine dipstick

C. Positive glucose on urine dipstick

D. Elevated blood glucose level

E. History of decreased fluid intake

Q9. A 41 y/o male alcoholic is brought into the ED by ambulance. He has been seizing for approximately 20 minutes. Appropriate actions in the next 5 minutes may include all of the following EXCEPT:

A. Endotracheal intubation, if unable to stop the seizure rapidly

B. Administration of IV anticonvulsants

C. Performing a complete set of vital signs

D. Ordering a stat EEG

Q10. A 70-year-old man is seen in your office for assessment one week after experiencing a brief episode of left arm and left facial weakness. Blood pressure in your office is 140/80 mmHg. A CT scan showed no evidence of hemorrhage or space-occupying lesion. An EKG shows normal sinus rhythm. Which one of the following is the most important investigation to order at this time?

A. An magnetic resonance imaging (MRI) of the brain

B. An echocardiogram

C. Cerebral angiography

D. A chest x-ray

E. carotid artery ultrasound

ANSWERS:

1 C

2 D

3 E

4 B

5 D

6 D

7 C

8 B

9 D

10 E