CME Acute medicine SAQs (95277):
Self-assessment questionnaire

1 Regarding critically ill patients with liver cirrhosis, which of the following are true?
(a) a model for end-stage liver disease (MELD) score >25 on presentation predicts a 30-day mortality of >50%  
(b) patients with a Child–Pugh score of C have a predicted survival at one year of >40%  
(c) the APACHE II score can be used to predict the outcome for an individual patient  
(d) the MELD score is superior to APACHE II in prognostication for such patients  
(e) variceal bleeding carries a poor prognosis

2 A 32-year-old female patient with a history of acute myeloid leukaemia, treated with a haemapoietic stem cell transplant (HSCT) 10 days previously, became acutely unwell with pyrexia of 38.5°C, heart rate of 120 bpm and respiratory rate of 32 bpm. Recent bloods showed haemoglobin of 100 g/L (120–140), white cell count of 0.3x10^9/l (3.5–9.0) (neutrophils 0.1x10^9/L), and platelet count of 60x10^9/L (150–300). Her blood pressure was 90/50 mmHg. She had oxygen saturations in 30% oxygen of 94%. She had a dry unproductive cough. A chest radiograph showed bilateral infiltrates. The patient had a Hickmann line in the right subclavian vein which looked slightly erythematous.

Which of the following is the most appropriate initial action?
(a) administer broad-spectrum antibiotics  
(b) perform blood cultures from peripheral vein and the Hickmann line  
(c) referral to high dependency unit for continuous positive airway pressure  
(d) remove the Hickmann line  
(e) take an arterial blood gas and serum lactate.

3 A 63-year-old male was admitted to the acute medical unit with aspiration pneumonia. He was currently undergoing radical radiotherapy for a T1 N0 squamous cell carcinoma of the larynx. He was treated with intravenous antibiotics but was otherwise stable and his oxygen saturations were 95% on room air.

What is the correct management?
(a) administer high-dose dexamethasone to reduce tumour-associated oedema  
(b) complete seven days of antibiotics and arrange urgent outpatient appointment with the patient’s oncologist  
(c) keep nil by mouth and refer for urgent speech and language therapy review  
(d) refer to the ear, nose, and throat team for flexible nasal endoscopy to assess tumour response  
(e) urgent acute oncology review

4 A 54-year-old man was seen in the accident and emergency department with diarrhoea and abdominal pain. He had almost finished a course of concurrent chemoradiation for T3 N2 rectal cancer. He was tender within his mid abdomen and passing frequent type-7 stools. His abdominal plain film demonstrated distended small bowel loops.
What is the likely diagnosis?
(a) Campylobacter jejuni infection
(b) capecitabine-induced colitis
(c) neutropenic enterocolitis
(d) obstruction secondary to rectal cancer
(e) small bowel radiation enteritis

5 A 46-year-old man presented to the accident and emergency department with a sore neck. He had recently finished postoperative radiotherapy to his oropharynx and left neck after undergoing a transoral laser resection and selective neck dissection for a pT2 pN2a tonsillar carcinoma. He had a well demarcated area of erythema which was intensely pruritic. There was no ulceration.

How is this best managed?
(a) 4 mg dexamethasone BD
(b) emollient and 1% hydrocortisone cream
(c) hyperbaric oxygen
(d) silicone foam bandaging
(e) topical NSAID

6 An 89-year-old female was admitted to hospital after her daughter called an ambulance because she ‘didn’t seem quite herself’. A urine dipstick was carried out and showed the presence of leucocytes and nitrates.

Which one of the following is a true statement?
(a) functional deterioration occurring during this acute episode is irreversible
(b) multidisciplinary team input regardless of where it takes place, will increase the patient’s chances of a good outcome after this acute episode
(c) the patient automatically falls into the category of moderately frail because of her age
(d) timing how long the patient takes to stand up from a chair and walk a short distance is a good indicator of whether they have frailty syndrome
(e) urinary tract infection is the most likely underlying diagnosis

7 Regarding frailty models and rating scores, which one of the following is a true statement?
(a) frailty scoring systems can only be used by geriatricians and specially trained multidisciplinary team members
(b) simple bedside tests for frailty are both sensitive and specific for the syndrome
(c) there are three recognised models of frailty: the frailty phenotype, cumulative deficit and congenital
(d) the Edmonton Frail Scale provides a good assessment of frailty, but does not aid diagnosis of the underlying conditions leading to presence of the syndrome
(e) validated frailty scoring methods only exist in research projects and do not have a role in clinical practice

8 A 38-year-old pregnant female presented with chest discomfort at 30/40, and was worried she had indigestion. She had essential hypertension and took amlodipine 10 mg OD.

Which of the following ECG findings is not a normal variant in pregnancy?
(a) 2-mm ST-elevation V3–V5
(b) left axis deviation
(c) S1Q3T3 pattern
(d) sinus tachycardia
(e) T wave inversion in lead III, V1 and V2

9 A 30-year-old primip who was homozygous for factor V Leiden experienced sudden onset pleuritic chest pain at 30/40 and presented to the accident and emergency department. Her pulse was 110 bpm, blood pressure 100/60 mmHg, respiratory rate 24, temperature 37.2°C and oxygen saturation 88% (94–98) on air. Her physical examination was otherwise normal. Chest radiograph and routine bloods were normal and ECG showed sinus tachycardia. Arterial blood gas showed pH 7.42 (7.40–7.47), PaO2 8.9 kPa (12.6–14.0), PaCO2 4.1 kPa (3.6–4.3) prior to supplemental oxygen being initiated.

Which of the following is a priority?
(a) administering subcutaneous low molecular weight heparin (LMWH)
(b) intubation and thrombolysis
(c) transfer to obstetric ward
(d) urgent delivery followed by CT pulmonary angiogram
(e) V/Q scan

10 A previously well 40-year-old Nigerian woman was breathless one day after spontaneous vaginal delivery of a 2.8-kg infant born at term. She was unable to lie flat and there was pulmonary oedema on her chest radiograph. A transthoracic ECG shows a left ventricular ejection fraction of 35%.

Which of the following drugs is not considered useful in this context?
(a) aspirin
(b) bisoprolol
(c) enalapril
(d) IV furosemide
(e) subcutaneous low molecular weight heparin