CME: Renal medicine (130893): self-assessment questionnaire

Authors: Edited by Michael Almond and Tahseen A Chowdhury

1. Which of the following was found to be true regarding the different modalities of renal replacement therapy?
   (a) Haemodialysis has a survival advantage in older patients compared to peritoneal dialysis patients.
   (b) Peritoneal dialysis has a survival advantage in older patients compared to haemodialysis patients.
   (c) Peritoneal dialysis patients were found to have worse treatment satisfaction scores compared to haemodialysis.
   (d) The rate of cognitive decline was found to be faster in peritoneal dialysis compared with haemodialysis.
   (e) There was no survival advantage identified between haemodialysis and peritoneal dialysis in older patients.

2. Which of the following is true regarding frail patients receiving renal replacement therapy?
   (a) Frailty is restricted to older patients on dialysis.
   (b) Targeting blood pressure of <140/90 mmHg has been shown to improve outcomes.
   (c) The prevalence of depression is similar to that of the general public.
   (d) The symptom burden experienced is similar to that of patients with malignancy.
   (e) There is no increased risk of fracture after a fall compared to the general public.

3. A 72-year-old man with heart failure with reduced ejection fraction was admitted with 2 weeks of increased orthopnoea, dyspnoea on exertion and ankle swelling. He was taking enalapril 5 mg twice daily (bd), bisoprolol 2.5 mg once daily (od), spironolactone 50 mg od and furosemide 40 mg bd. Blood pressure was 122/88 mmHg and heart rate was 66 beats per minute. His pre-admission baseline creatinine of 100 μmol/L was increased to 144 μmol/L. His potassium was 4.8 mmol/L. As well as changing oral furosemide to at least 80 mg bd intravenous, which is the correct change to his medication?
   (a) Increase bisoprolol to 5 mg once daily.
   (b) No change.
   (c) Reduce enalapril to 2.5 mg twice daily.
   (d) Reduce spironolactone to 12.5 mg once daily.
   (e) Stop enalapril.

4. A 25-year-old man with no past medical history presented to emergency department with severe malaise. He was found to be anaemic with haemoglobin of 69 g/L (normal range 130–180 g/L). Blood film showed evidence of microangiopathic haemolysis and a thrombotic microangiopathy was suspected. Which of the following would be more suggestive of a diagnosis of thrombotic thrombocytopenic purpura rather than complement-mediated atypical haemolytic uraemic syndrome?
   (a) ADAMTS13 activity >50%.
   (b) Creatinine of 90 μmol/L (normal range 50–120 μmol/L).
   (c) Family history of thrombotic microangiopathy.
   (d) Platelet count of 90 × 10^9/L (normal range 150–400 × 10^9/L).
   (e) Shistocytes on blood film.
5. A 27-year-old woman with a background of chronic kidney disease stage G4, A3 due to complement-mediated atypical haemolytic uraemic syndrome, maintained in remission using eculizumab, presented to the emergency department with 4 hours of headache, vomiting and fever.

Which of the following is true regarding eculizumab?

(a) Contraindicated after renal transplant.
(b) Increased risk of infection with encapsulated organisms.
(c) Inhibits alternative pathway to prevent paroxysmal nocturnal haemoglobinuria.
(d) Mechanism of action is C1 inhibition.
(e) Migraine is a major side effect.

6. Which of these factors is a recognised risk factor for cancer in a kidney transplant recipient?

(a) B cell depleting agents.
(b) Epstein–Barr virus.
(c) Herpes simplex virus.
(d) Obesity.
(e) Past alcohol history.

7. Which of the following recommendations is correct regarding screening for post-transplant malignancies?

(a) Two-yearly colonoscopy for those aged 60–74 years old to detect colorectal cancer.
(b) Three-yearly Papanicolaou smears in female recipients.
(c) Annual positron-emission tomography to screen for post-transplant lymphoproliferative disorder.
(d) Annual ultrasound of native kidneys to detect renal cell cancer.
(e) No routine dermatology review is required.

8. Which of these drugs is associated with an increased risk of malignancy in the post-transplant setting?

(a) Azathioprine.
(b) Cotrimoxazole.
(c) Mammalian target of rapamycin (mTOR) inhibitor.
(d) Prednisolone.
(e) Valganciclovir.

9. A patient with chronic kidney disease stage 3 (estimated glomerular filtration rate 49 mL/min/1.73 m²) is admitted to hospital and is known to have heparin-induced thrombocytopenia.

Which form of heparin is safe to use if parenteral anticoagulation is required?

(a) Dalteparin.
(b) Enoxaparin.
(c) Fondaparinux.
(d) Tinzaparin.
(e) Unfractionated heparin.

10. A haemodialysis patient has suffered two unprovoked pulmonary emboli in the past year. It was decided that he requires long-term oral anticoagulation.

Which oral anticoagulant is currently licensed in the UK for use in this patient?

(a) Apixaban.
(b) Dabigatran.
(c) Edoxaban.
(d) Rivaroxaban.
(e) Warfarin.