

## CME Haematology SAQs (79092)

### Self-assessment questionnaire

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SAQs and answers are ONLINE for RCP fellows and collegiate members

**The SAQs printed in the CME section can only be answered online to achieve external CPD credits.**

Any comments should be sent in via email only:  
clinicalmedicine@rcplondon.ac.uk

#### Format

SAQs follow a best of five format in line with the MRCP(UK) Part 1 exam. Candidates are asked to choose the best answer from five possible answers.

#### The answering process

- 1 Go to [www.rcplondon.ac.uk/SAQ](http://www.rcplondon.ac.uk/SAQ)
- 2 Log on using your usual RCP username and password
- 3 Select the relevant CME question paper
- 4 Answer all 10 questions by selecting the best answer from the options provided
- 5 Once you have answered all the questions, click on **Submit**

#### Registering your external CPD credits

Carrying out this activity allows you to claim two external CPD credits. These will be automatically transferred to your CPD diary, where you can review the activity and claim your points.

- 1 A 28-year-old man undergoing intensive treatment for acute myeloid leukaemia became febrile and hypotensive. On examination no abnormalities were noted on chest examination and his temperature was 39.7°C.

A clinical diagnosis of septicaemia was made and the source of the problem sought.

Investigations:

haemoglobin	7.1 g/dl (11.5–16.5)
white cell count	$0.3 \times 10^9/l$ (4–11)
platelet count	$17 \times 10^9/l$ (150–400)

Which of the following antibiotics is recommended for first-line use as monotherapy in this setting?

- (a) ciprofloxacin
- (b) co-amoxiclav
- (c) gentamycin
- (d) piperacillin-tazobactam
- (e) vancomycin

- 2 For the same patient described in question 1, which of the following tests should be undertaken before starting antibiotics?

- (a) blood cultures
- (b) chest X-ray
- (c) differential white cell count
- (d) line swab
- (e) urinalysis

- 3 A 39-year-old woman presented with a six-month history of generalised itching. She was intolerant of fatty foods and had intermittent right subcostal pain. She was a non-smoker and drank very little alcohol.

On examination she was obese and had a florid complexion. There were no skin rashes.

Investigations:

haemoglobin	18.1 g/dl (11.5–16.5)
haematocrit	0.56 (0.36–0.47)
white cell count	$6.3 \times 10^9/l$ (4–11)
platelet count	$410 \times 10^9/l$ (150–400)
serum urea	6.2 mmol/l (2.5–7.0)
serum creatinine	93 $\mu$ mol/l (60–110)
serum urate	0.39 mmol/l (0.19–0.36)

Ultrasound imaging of the abdomen showed numerous gallstones and she was admitted for elective cholecystectomy.

What treatment should be given before surgery?

- (a) allopurinol
- (b) aspirin
- (c) busulfan
- (d) hydroxycarbamide
- (e) venesection

- 4 A 69-year-old man with hypertension, gout and essential thrombocythaemia diagnosed four years previously attended the haematology clinic for routine follow up. His platelet count was controlled with hydroxycarbamide, he took aspirin for thromboprophylaxis, allopurinol for gout and amlodipine for hypertension.

Investigations:

haemoglobin	16.1 g/dl (11.5–16.5)
haematocrit	0.45 (0.36–0.47)
white cell count	$6.3 \times 10^9/l$ (4–11)
platelet count	$519 \times 10^9/l$ (150–400)
serum potassium	6.7 mmol/l (3.5–5.0)
serum creatinine	76 $\mu\text{mol/l}$ (45–84)

What is the most likely cause of his raised potassium?

- (a) allopurinol
  - (b) amlodipine
  - (c) artefact
  - (d) aspirin
  - (e) hydroxycarbamide
- 5 A 65-year-old Indian woman with rheumatoid arthritis reported having become breathless and excessively tired. Her arthritis had been under reasonable control for some years with weekly methotrexate and NSAIDs. She had last reported a flare two years previously.

Investigations:

haemoglobin	9.1 g/dl (11.5–16.5)
MCV	82 fl (80–96)
white cell count	$10.3 \times 10^9/l$ (4–11)
platelet count	$519 \times 10^9/l$ (150–400)
erythrocyte sedimentation rate	57 mm/1st h (<30)
serum ferritin	55 $\mu\text{g/l}$ (15–300)

What is the most likely underlying cause for her anaemia?

- (a) anaemia of chronic disorder
  - (b) beta thalassaemia trait
  - (c) iron deficiency anaemia
  - (d) methotrexate toxicity
  - (e) myelodysplastic syndrome
- 6 In the same scenario as question 5, which additional test may help you confirm the diagnosis?
- (a) bone marrow aspirate and trephine
  - (b) iron studies
  - (c) serum EPO
  - (d) serum hepcidin
  - (e) TPMT assay

- 7 A 58-year-old woman was febrile and hypotensive one hour after resuscitation following a major haemorrhage. During the resuscitation she was treated with intravenous saline, gelatine, blood, platelets, fresh frozen plasma and cryoprecipitate. On examination her temperature was 39°C; it had been normal on admission.

A clinical diagnosis of septicaemia was made and the source of the problem sought.

What product that she received carries the greatest risk of transmitting infections?

- (a) cryoprecipitate
  - (b) fresh frozen plasma
  - (c) gelatin
  - (d) platelet concentrate
  - (e) red blood cells
- 8 A 23-year-old woman attended a pre-assessment clinic prior to a planned tonsillectomy. She was fit and well, had no significant past medical history and took no regular medications.

Investigations:

prothrombin time	14 s (11.5–15.5)
activated partial thromboplastin time	57 s (30–40)
50:50 mixing APTT	53 s (4–11)

The surgeon was concerned that she may bleed excessively during the procedure.

What is the most likely underlying cause for the abnormal APTT?

- (a) factor XI deficiency
  - (b) haemophilia A carrier
  - (c) lupus anticoagulant
  - (d) platelet function disorder
  - (e) von Willebrand disease
- 9 A 14-year-old boy was noted to have excessive bruising after falling playing football. His mother confirmed that he had always bruised more easily than his siblings but that he had been tested for 'haemophilia' at the age of four years and that his results were normal. It was noted that he bled freely from his venepuncture site. There was no family history of bleeding or bruising.

Investigations:

haemoglobin	143 g/l (130–180)
platelet count	$311 \times 10^9/l$ (150–400)
blood film	normal
prothrombin time	12 s (11.5–15.5)
activated partial thromboplastin time	33 s (30–40)

What further test should be undertaken?

- (a) activated protein C resistance
- (b) D-dimer
- (c) factor XI concentration
- (d) factor XIII concentration
- (e) platelet aggregometry

10 A 26-year-old pregnant woman was noted to have thrombocytopenia when she presented as an emergency with dysuria because of a urinary tract infection. She was at 32 weeks gestation and, apart from one other urine infection, had had no problems. She was a vegetarian and believed in natural remedies; she had originally tried cranberry juice but this produced no symptomatic relief. On examination she appeared flushed. Her temperature was 37.4°C, her pulse was 82 beats per minute and her blood pressure was 108/76 mmHg. The uterus was enlarged and compatible with dates, and there were fetal movements.

Investigations:

haemoglobin	109 g/l (115–165)
MCV	102 fl (80–96)
white cell count	$12.1 \times 10^9/l$ (4–11)
neutrophil count	$10.6 \times 10^9/l$ (1.5–7.0)
platelet count	$98 \times 10^9/l$ (150–400)

What is the most likely cause of the thrombocytopenia?

- (a) HELPP syndrome
- (b) gram-negative bacteraemia
- (c) folate deficiency
- (d) adverse reaction to cranberry juice
- (e) normal pregnancy-related change

## CME Neurology medicine SAQs

Answers to the CME SAQs published in *Clinical Medicine* February 2013

<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Q6</b>	<b>Q7</b>	<b>Q8</b>	<b>Q9</b>	<b>Q10</b>
(d)	(b)	(a)	(c)	(d)	(d)	(a)	(a)	(b)	(e)