CME Rheumatology SAQs (80448)

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**
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 78-year-old woman presented with a 3-week history of acute onset pain and stiffness of her shoulders. She experienced generalised stiffness every morning for 30 minutes after waking and she found it difficult to brush her hair. She had lost 2 kg in weight over the past month. She was taking paracetamol 1 g four times daily (qds) from her general practitioner for the pain. She had a past medical history of breast cancer, which had been in remission for 8 years, and she was a smoker.

On examination, she found it difficult to abduct her arms above 90° due to pain. Muscle power in arms could not be tested due to this pain. Passive movement of shoulders was normal. Cardiovascular examination was unremarkable. A urine dip showed leucocytes 2+.

Investigations:

haemoglobin	107 g/l (115–165)
white cell count	10.9×10^9/l (4.0–11.0)
platelet count	425×10^9/l (150–400)
erythrocyte sedimentation rate	32 mm/1st h (<30)
serum corrected calcium	2.5 mmol/l (2.20–2.60)
serum C-reactive protein	12 mg/l (<10)
Chest X-ray	emphysematous lungs

What is the next most important management step?

(a) computed tomography (CT) scan of chest, abdomen and pelvis
(b) positron emission tomography (PET) scan
(c) prednisolone 15 mg once daily
(d) temporal artery biopsy
(e) ultrasound of shoulders

2 A 68-year-old man presented with a 2-month history of generalised stiffness and lethargy. The symptoms had been worsening over time. He found it difficult getting out of bed in the morning and towards the evening he suffered with increasing stiffness and had to go to bed early. He had a past medical history of polymyalgia rheumatica, for which he had been on gradually tapering doses of prednisolone for about 14 months. At the time of presentation he was taking prednisolone 4 mg once daily (od), alendronic acid 70 mg/week, calcium and vitamin D 12.5 mmol/400 units, one tablet twice daily (bd), and simvastatin 40 mg every night (nocte).

Musculoskeletal examination was unremarkable. There was an ejection systolic murmur in the left parasternal area radiating to the carotids. Auscultation of the chest revealed normal respiratory sounds. Blood pressure was 102/68 mmHg.

Investigations:

haemoglobin	128 g/l (130–180)
white cell count	5.8×10^9/l (4.0–11.0)
platelet count	164×10^9/l (150–400)
erythrocyte sedimentation rate	18 mm/1st h (<20)
serum sodium	138 mmol/l (137–144)
serum potassium	5.2 mmol/l (3.5–4.9)
serum creatinine	98 µmol/l (60–110)
serum creatine kinase	203 U/l (24–170)

What is the most likely cause of the recent symptoms?

(a) aortic stenosis
(b) iatrogenic Cushing's syndrome
(c) relapse of polymyalgia rheumatica
(d) secondary adrenal insufficiency
(e) simvastatin

3 A 68-year-old man presented with a 24-h history of acute onset pain and swelling of the right knee. The pain was severe and affected his gait and ability to bear weight. He could not tolerate his bed clothes touching the knee. He had a history of hypertension and psoriasis. He had been taking bendroflumethiazide 5 mg once daily (od) for several years.

On examination his right knee was warm to touch, swollen and restricted. There was overlying erythema and the knee was hyperalgesic to touch. He had a nodule on the right elbow which was non-tender.

Investigations:

haemoglobin	134 g/l (130–180)
white cell count	12.3×10^9/l (4.0–11.0)
neutrophil count	8.4×10^9/l (1.5-7.0)
serum creatinine	169 µmol/l (60–110)
serum urate	0.42 mmol/l (0.23–0.46)
rheumatoid factor	68 kIU/l (<30)
synovial fluid	negatively birefringent crystals

What is the most likely diagnosis?

(a) gout
(b) pseudogout
(c) psoriatic arthritis
(d) rheumatoid arthritis
(e) septic arthritis

4 A 46-year-old man presented with a history of recurrent attacks of joint pain and swelling of his right ankle. His general practitioner had treated the attacks with naproxen 500 mg twice daily (bd). Over the previous 12 months he had six episodes of severe joint pain necessitating him taking time off work. On one occasion his right ankle had been aspirated in the emergency department and the fluid had demonstrated negatively birefringent crystals on polarised microscopy. 6 months previously, he had developed a widespread rash after 2 days of allopurinol, which had been discontinued There was no other past medical history of note.

On examination, his right ankle was not inflamed. His right elbow had a non-tender nodule.

Investigations:

serum urate	0.61 mmol/l (0.23–0.46)

Which drug would be preferred to prevent further attacks?

(a) colchicine
(b) etoricoxib
(c) febuxostat
(d) prednisolone
(e) probenecid

5 A 46-year-old woman presented with a 3-week history of pain in her right hand and left knee. The pain was continuous and associated with swelling and deterioration of hand dexterity. She had recently returned from New Zealand and her grandfather had a history of psoriasis.

On examination she had a warm left knee effusion and her right 2nd metacarpophalangeal joint was swollen. Squeezing the metatarsophalangeal joints elicited tenderness bilaterally.

Investigations:

haemoglobin	125 g/l (115–165)
erythrocyte sedimentation rate	74 mm/1st h (<20)
serum C-reactive protein	68 mg/l (<10)
rheumatoid factor	8 kIU/l (<30)
anti-cyclic citrunillated peptide antibody	600 U/ml (<10)
X-ray of hands	normal
X-ray of chest	normal

What is the most likely diagnosis?

(a) psoriatic arthritis
(b) reactive arthritis
(c) rheumatoid arthritis
(d) septic arthritis
(e) seronegative spondyloarthritis

6 A 64-year-old man presented with a 3-month history of pain in both hands and feet. The pain was continuous and associated with swelling, and he had restriction of movement for several hours every morning after getting out of bed. He had a past medical history of asthma, which was well controlled with a beclometasone inhaler.

On examination he had widespread synovitis in his hands and feet. Respiratory sounds were vesicular on auscultation of the chest.

Investigations:

haemoglobin	138 g/l (130–180)
erythrocyte sedimentation rate	45 mm/1st h (<20)
serum creatinine	88 µmol/l (60–110)
serum alanine aminotransferase	24 U/l (5–35)
serum C-reactive protein	14 mg/l (<10)
rheumatoid factor	32 kIU/l (<30)
X-ray of chest	normal

Which is the most appropriate therapeutic option to treat his disease?

(a) etanercept 50 mg/week subcutaneously
(b) hydroxychloroquine 200 mg twice daily (bd)
(c) methotrexate 15 mg/week subcutaneously
(d) methylprednisolone 120 mg intramuscularly stat
(e) sulfasalazine 1g bd

7 A 54-year-old man presented for follow up of rheumatoid arthritis which had been diagnosed 6 years earlier. He was taking methotrexate 15 mg/week subcutaneously, folic acid 5 mg once daily (od) and hydroxychloroquine 200 mg twice daily (bd). His hypertension was controlled satisfactorily with amlodipine 5 mg od. He smoked three cigarettes per day and his alcohol intake was 18 units per week.

On examination, he had no evidence of active disease. Cardiovascular and respiratory examinations were unremarkable.

Investigations:

haemoglobin	143 g/l (130–180)
neutrophil count	2.6×10^9/l (1.5–7.0)
erythrocyte sedimentation rate	21 mm/1st h (<20)
serum creatinine	85 µmol/l (60–110)
serum alanine aminotransferase	32 U/l (5–35)

What is the best method of assessing his cardiovascular risk?

(a) ASSIGN score
(b) fasting lipid profile
(c) Framingham risk equation
(d) Joint British Societies calculator
(e) QRISK2 calculator

8 A 52-year-old woman presented for follow up of her systemic lupus erythematosus, which had been diagnosed 12 years previously. She complained of fatigue and lethargy which had been unchanged since diagnosis. At diagnosis she had presented with arthralgia, discoid lupus and type 3 lupus nephritis. She was taking azathioprine 150 mg once daily (od) and prednisolone 5 mg od.

On examination, there were no signs of active connective tissue disease. A urine dipstick demonstrated protein 1+ and a trace of blood. Her blood pressure was 124/76 mmHg.

Investigations:

haemoglobin	121 g/l (115–165)
white cell count	5.1×10^9/l (4.0–11.0)
erythrocyte sedimentation rate	31 mm/1st h (<30)
serum creatinine	100 µmol/l (60–110)
serum cholesterol	5.0 mmol/l (<5.2)
serum low density lipid cholesterol	3.5 mmol/l (<3.36)
serum high density lipid cholesterol	1.4 mmol/l (>1.55)
fasting serum triglycerides	0.52 mmol/l (0.45–1.69

Which is the most appropriate intervention to modify her risk of cardiovascular disease?

(a) add ezetemibe
(b) add hydroxychloroquine
(c) add lisinopril
(d) add simvastatin
(e) gradual reduction of prednisolone

9 A 28-year-old woman presented with 2 days of cough with scanty production of yellow sputum. For 2 days prior to that, she had complained of a sore throat. She had only tried home remedies for her complaint. Her past medical history included rheumatoid arthritis, which was very well controlled with a combination of etanercept, methotrexate and hydroxychloroquine.

On examination, her throat was congested. Auscultation of the chest was normal with vesicular respiratory sounds. She had synovitis in the right second metacarpophalangeal joint.

What is the next most important management step?

(a) check serum C-reactive protein
(b) monitor symptoms
(c) request chest X-ray
(d) request throat swab
(e) stop etanercept

10 A 42-year-old woman presented with worsening pains in her hands and knees for the past 3 months. She had been diagnosed with rheumatoid arthritis 8 months previously and was taking methotrexate 20 mg/week subcutaneously and hydroxychloroquine 200 mg twice daily (bd). She had a past medical history of basal cell carcinoma on her forearm, which had been treated with Mohs' excision without recurrence 4 years previously. She was also being investigated at the time for the possibility of inflammatory bowel disease.

On examination, she had widespread synovitis in both hands, knees and feet.

Investigations:

haemoglobin	108 g/l (115–165)
erythrocyte sedimentation rate	106 mm/1st h (<20)
serum C-reactive protein	86 mg/l (<10)

On calculation, her disease activity score (DAS28) was >5.1.

Which is the best drug to add to methotrexate to control the rheumatoid arthritis?

(a) adalimumab
(b) etanercept
(c) prednisolone
(d) rituximab
(e) sulfasalazine

CME Endocrinology SAQs

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

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