

CME: Clinical oncology (143247): self-assessment questionnaire

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DOI: 10.7861/clinmed.SAQ.23.1

SAQs and answers are ONLINE for RCP fellows and collegiate members

Format

Candidates are asked to choose the best answer from the five possible answers. This best of five format is used in many medical examinations; however, the questions are not intended to be representative of those used in the MRCP(UK) Part 1 or Part 2 Written Examinations.

The answering process

- 1 Go to <https://cme.rcplondon.ac.uk>
- 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 patient with a history of coronary artery disease, heart failure and atrial fibrillation was diagnosed with metastatic melanoma. After receiving three doses of pembrolizumab, she presented with dyspnoea on minimal exertion. Troponin levels were elevated (2,790 ng/L; normal <14 ng/L). Electrocardiogram showed sinus tachycardia, mild ST depression and flat T waves. The patient subsequently developed cardiogenic shock. Echocardiography showed worsening LV systolic function with no wall motion abnormalities.

What is the most likely diagnosis?

- (a) Cardiogenic shock due to ST-elevation myocardial infarction.
- (b) Acute pulmonary embolism causing obstructive shock.
- (c) Cardiac tamponade due to a pericarditis and pericardial effusion.
- (d) Myocarditis related to ICI.
- (e) Septic shock.

2. Which clinical scenario best describes metachronous oligometastatic progression?

- (a) A patient with a diagnosis of liver metastatic disease at the time of initial rectal cancer diagnosis.
- (b) A patient with Hodgkin's lymphoma with residual F-fluorodeoxyglucose-avid metastatic sites seen on PET CT after systemic chemotherapy.
- (c) A patient with RCC found to have progression of one metastatic site in otherwise stable but widespread metastatic disease.
- (d) A patient who underwent a wide local excision for a high-risk melanoma 2 years ago now re-presenting with a solitary recurrence of one metastasis to lung.
- (e) A patient with triple negative breast cancer, treated with multiple lines of chemotherapy, presenting with a pleural effusion, multiple intracranial metastases >5 and evidence of leptomeningeal disease.

3. A 60-year-old woman with a history of metastatic colon cancer was scheduled to receive chemotherapy with the FOLFOX regime that includes 5-fluorouracil, leucovorin and oxaliplatin. She had a previous medical history of hypertension and dyslipidaemia, medicated with candesartan and atorvastatin. A week after the second cycle of chemotherapy, she presented to the emergency department with chest pain at rest; the electrocardiogram showed mild non-specific repolarisation abnormalities. There was a very mild elevation of troponin. Coronary angiography revealed non-obstructive coronary artery disease.

Which statement is true?

- (a) The clinical picture is most likely related to the use of oxaliplatin, a platinum-based agent.
- (b) The clinical picture is most likely related to 5-fluorouracil, an intravenous anti-metabolite agent.
- (c) All patients with planned therapy with this regime need to undergo pre-treatment evaluation for presence of ischemia using stress imaging.
- (d) Cardioprotection with calcium channel blockers is mandatory prior to treatment with this regime.
- (e) Stenting of any coronary lesions would prevent further chest pain.

4. A 63-year-old male patient had a background of non-small-cell lung cancer and has received four cycles of carboplatin, pemetrexed and pembrolizumab. During his pre-cycle-5 review he presented with confusion and fatigue. Blood tests revealed severe hypercalcaemia, normal renal function and low PTH.

What would be your first line management?

- (a) Intravenous pamidronate.
- (b) Intravenous zoledronic acid.
- (c) Intravenous 0.9% saline.
- (d) Oral calcitonin.
- (e) Oral dexamethasone.

5. A 35-year-old female patient had a background of a moderately differentiated adenocarcinoma of the ascending colon. She had been treated with oxaliplatin and capecitabine and had 2 further days of oral capecitabine left to complete her first cycle of treatment. She presented with diarrhoea and fever. Her HR was 65 bpm and BP 115/70 mmHg.

What should her initial management be?

- (a) Continue capecitabine, oral co-amoxiclav and review in 2 days.
- (b) Continue capecitabine, blood cultures, urgent broad-spectrum IV antibiotics and admission.
- (c) Stop capecitabine, loperamide and encourage oral intake.
- (d) Stop capecitabine, oral ciprofloxacin and review in 5 days.
- (e) Stop capecitabine, blood cultures, urgent broad-spectrum IV antibiotics and admission.

6. A 45-year-old woman with a history of metastatic melanoma presented to the ambulatory care unit, referred from her GP with fatigue, nausea and vomiting. She had received three cycles of re-challenge nivolumab, the last 2 weeks ago. On examination she appeared well with normal observations. Her bloods were as follows:

Hb 110 (114–150 g/L)
 WBC 8.1 ($4.2\text{--}11.2 \times 10^9/\text{L}$)
 Neut 4.5 ($2\text{--}7.1 \times 10^9/\text{L}$)
 Plt 200 ($135\text{--}400 \times 10^9/\text{L}$)
 CRP <5 (0–5 mg/L)
 Na 136 (133–146 mmol/L)
 K+ 4.1 (3.5–5.3 mmol/L)
 Urea 6.5 (2.5–7.8 mmol/L)
 Creat 89 (55–110 $\mu\text{mol/L}$)
 Bilirubin 55 (0–21 $\mu\text{mol/L}$)
 ALT 200 (0–34 unit/L)
 ALP 938 (unit/L)

What would be the most appropriate next management step?

- (a) Admit for IV antiemetics and monitor liver function, which may improve without treatment.
- (b) Admit for IV methylprednisolone 1 mg/kg and IV antiemetics, for management of immunotherapy-related hepatitis.
- (c) Prescribe oral antiemetics.
- (d) Refer to gastroenterology for liver ultrasound and cross-sectional imaging. Complete full liver screen.
- (e) Start oral prednisolone 1 mg/kg for immunotherapy-related hepatitis and oral antiemetics.

7. A 54-year-old woman with a history of ovarian carcinoma, treated initially with carboplatin and paclitaxel, received bevacizumab (VEGF inhibitor) subsequently. She then presented with a hypertensive crisis (220/136 mmHg) and acute pulmonary oedema. The echocardiogram showed normal LV ejection fraction.

What should happen to the VEGF inhibitor therapy?

- (a) Continue.
- (b) Decrease dose.
- (c) Temporarily interrupt and escalate therapy for hypertension.
- (d) Discontinue indefinitely.
- (e) It is not associated with hypertension.

8. A 69-year-old woman has a background of metastatic triple negative breast cancer and is receiving chemotherapy with paclitaxel. During her pre-cycle two review she was noticed to be confused and unsteady. Blood tests revealed a normal full blood count, renal function liver function and inflammatory markers. A CT head and lumbar puncture were normal.

What is the likely diagnosis?

- (a) Aseptic meningitis.
- (b) Breast cancer brain metastases.
- (c) Isoniazid, rifampicin, pyrazinamide and ethambutol.
- (d) Chemotherapy-induced encephalitis.
- (e) Neutropenic sepsis.

9. A 55-year-old man with a history of metastatic lung adenocarcinoma presented to the emergency department 10 days after his third cycle of pembrolizumab, pemetrexed and carboplatin. He described a rapidly worsening skin rash that had developed over the past 5 days and feeling generally unwell. He also described new mouth ulcers, painful swallowing and two episodes of diarrhoea in the previous 12 hours. On examination, he appeared dehydrated and fatigued. His heart rate was 110, blood pressure 105/90, temperature 37.7, respiration rate 12, and his O₂ saturations 98% on air. His chest was clear and his abdomen was soft and non-tender. Heart sounds were I+II+0. Skin examination revealed widespread, patchy erythematous rash covering both upper arms, back and torso, in addition to the forehead, both calves and genital area, with evidence of desquamation and blistering. There was significant oromucosal ulceration and peeling lips. His bloods were as follows:

Hb 105 (114–150 g/L)
 WBC 0.8 ($4.2\text{--}11.2 \times 10^9/\text{L}$)
 Neut 0.2 ($2\text{--}7.1 \times 10^9/\text{L}$)
 Plt 107 ($135\text{--}400 \times 10^9/\text{L}$)
 CRP <5 (0–5 mg/L)
 Na 135 (133–146 mmol/L)
 K+ 3.7 (3.5–5.3 mmol/L)
 Urea 6.8 (2.5–7.8 mmol/L)
 Creat 75 (55–110 $\mu\text{mol/L}$)
 Bilirubin 7 (0–21 $\mu\text{mol/L}$)
 ALT 36 (0–34 unit/L)

What would be the most appropriate next management step?

- (a) Admit for IV fluids, IV broad spectrum antibiotics and G-CSF injections. Discuss immediately with the acute oncology service and initiate IV methylprednisolone at 1–2 mg/kg.
- (b) Admit for IV fluids and IV broad spectrum antibiotics. Refer for urgent oncology and dermatology review.
- (c) Admit for IV fluids, complete full infection screen including skin swabs and stool cultures. Refer for urgent oncology and dermatology review.
- (d) Admit for PO antibiotics and start potent topical steroid. Refer for urgent oncology and dermatology review.
- (e) Start PO antibiotics and a potent topical steroid, take skin swabs and arrange urgent dermatology review as an outpatient.

10. A 47-year-old woman with HER2-positive metastatic breast cancer presents with shortness of breath. Auscultation of her lungs reveals fine inspiratory crackles bi-basally.

Which systemic anti-cancer therapy has she recently been started on?

- (a) Cyclophosphamide.
- (b) Doxorubicin.
- (c) Letrozole.
- (d) Pertuzumab.
- (e) Trastuzumab-deruxtecan.

CME Dermatology SAQ

Answers to the CME SAQ published in *Clinical Medicine* in September 2022

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