



Sample sequential item explanation

Each sequential item is made up of 4-6 selected response questions that are all related to a specific case scenario.

- This sample has **4** selected response questions.

Within a sequential item, every question logically succeeds the previous question i.e. after the first question is answered, additional information is added to facilitate answering the second question, and so on.

- Additional information in this sample is in **light blue**.

Candidates may be required to 1) select the single best answer, 2) select multiple correct answers or 3) order the answers in a specific way.

- This sample has a single-best-answer question as well as multiple-select questions.

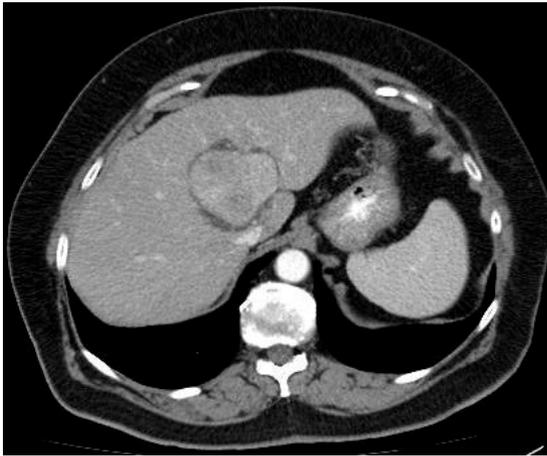
On the examination day you will not be allowed to return to previous questions!



MEDICAL HISTORY

- A 76-year-old woman with type 2 diabetes has an incidental finding of a solitary liver mass on ultrasonography.
- A contrast-enhanced CT scan confirmed a liver tumour in a non-cirrhotic liver localised to the left lobe.
- The alpha-fetoprotein was mildly elevated: 40 IU/mL (normal range: <8 IU/mL), but all other laboratory investigations were normal.
- The largest diameter of the lesion was 6.3 cm.

Liver biopsy revealed a hepatocellular carcinoma.



Q1. Which of the following is the most appropriate treatment option for this patient? **Select one option only:**

- Multiple needle thermal ablation
- Left hepatectomy
- Trans-arterial radioembolisation
- Trans-arterial chemoembolisation



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The patient was discussed at the multidisciplinary tumour board (MDT). She had an acute coronary syndrome (STEMI) 8 months previously treated with a drug-eluting stent. She is currently on dual antiplatelet therapy.



Q2. What are the factors associated with failure of thermal ablation as the only treatment in this patient? **Select all that apply:**

- Size of the lesion
- Perivascular location
- The likelihood of microsatellite lesions
- High chance of tumour seeding following ablation



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- The largest diameter of the lesion was 6.3 cm.

At the multidisciplinary tumour board (MDT), transarterial chemoembolisation was advised.



Q3. Which of the following would be appropriate materials to use for chemoembolisation in this patient? **Select all that apply:**

- Doxorubicin loaded drug-eluting beads
- Lipiodol + doxorubicin + Gelfoam
- Non-spherical polyvinyl alcohol (PVA) and doxorubicin
- Irinotecan loaded drug-eluting beads



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- The largest diameter of the lesion was 6.3 cm.

Transarterial chemoembolisation with doxorubicin drug-eluting beads was performed.

The patient was reviewed in the interventional radiological clinic 1 week later with fever (38.7°C) and epigastric pain.



Q4. What are the most appropriate next management steps? **Select all that apply:**

- This is an expected side effect, therefore reassure the patient and discharge
- Carry out blood tests, including C-reactive protein and white cell count and do a CT-scan
- Admit the patient and commence wide spectrum antibiotics
- Percutaneous aspiration of treated lesion
- Perform electrocardiogram (ECG) and assess myocardial enzyme levels



Answer Key

Q1. Left hepatectomy

Q2. Size of the lesion,

& Perivascular location,

& The likelihood of microsatellite lesions

Q3. Doxorubicin loaded drug-eluting beads,

& Lipiodol + doxorubicin + Gelfoam

Q4. Carry out blood tests, including C-reactive protein and white cell count and do a CT-scan,

& Admit the patient and commence wide spectrum antibiotics,

& Perform electrocardiogram (ECG) and assess myocardial enzyme levels