

## FFICM OSCE Example Questions

<b>Question Number</b>	<b>ICM OSCE Example 1</b>
<b>Question Title</b>	<b>Clinical Data</b>

### Candidate instructions:

A 76-year-old patient presented to the Emergency Department with shortness of breath and abdominal pain. Five days previously she underwent laparoscopic division of intra-abdominal adhesions at another hospital. The notes are not available.

### 1. Please interpret the patient's blood results

#### Biochemistry and Haematology results

	<b>Measured</b>	<b>Normal range</b>
<b>Hb</b>	157	135-175 g/L
<b>WBC</b>	17.8	4.5-11 x 10 <sup>9</sup> /L
<b>Plat</b>	345	150-350 x 10 <sup>9</sup> /L
<b>Na</b>	137	136-145mmol/L
<b>K</b>	4.9	3.5-5.0 mmol/L
<b>Urea</b>	8.5	2.5-7.8 mmol/L
<b>Creat</b>	134	60-120 umol/L

#### Blood Gas Analysis

	<b>Measured</b>	<b>Normal range</b>
<b>H<sup>+</sup></b>	63	36-44 nmol/L
<b>pH</b>	7.20	7.35-7.45
<b>pO<sub>2</sub></b>	8.3	10.0-13.3 kPa
<b>pCO<sub>2</sub></b>	4.5	4.7-6.0 kPa
<b>HCO<sub>3</sub></b>	13.3	21-27 mmol/L
<b>Base excess</b>	-14.6	-2 to +2 mmol/L
<b>Lactate</b>	3.2	0.6-1.7 mmol/L
<b>Glucose</b>	15.7	4.2-6.4 mmol/L

Examiner Marking Guide	Show artefact 1 (Blood gas analysis, Biochemistry and Haematology results). Need all elements on each line for correct answer. 2 correct answers for 1 mark. Max 2 marks. Can prompt for 'interpretation'	
	<ul style="list-style-type: none"> <li>• Hypoxia and raised blood glucose</li> <li>• Metabolic acidosis with elevated lactate</li> <li>• Raised white cell count consistent with inflammation/infection (either or both for mark)</li> <li>• Elevated urea and creatinine consistent with renal impairment</li> </ul>	

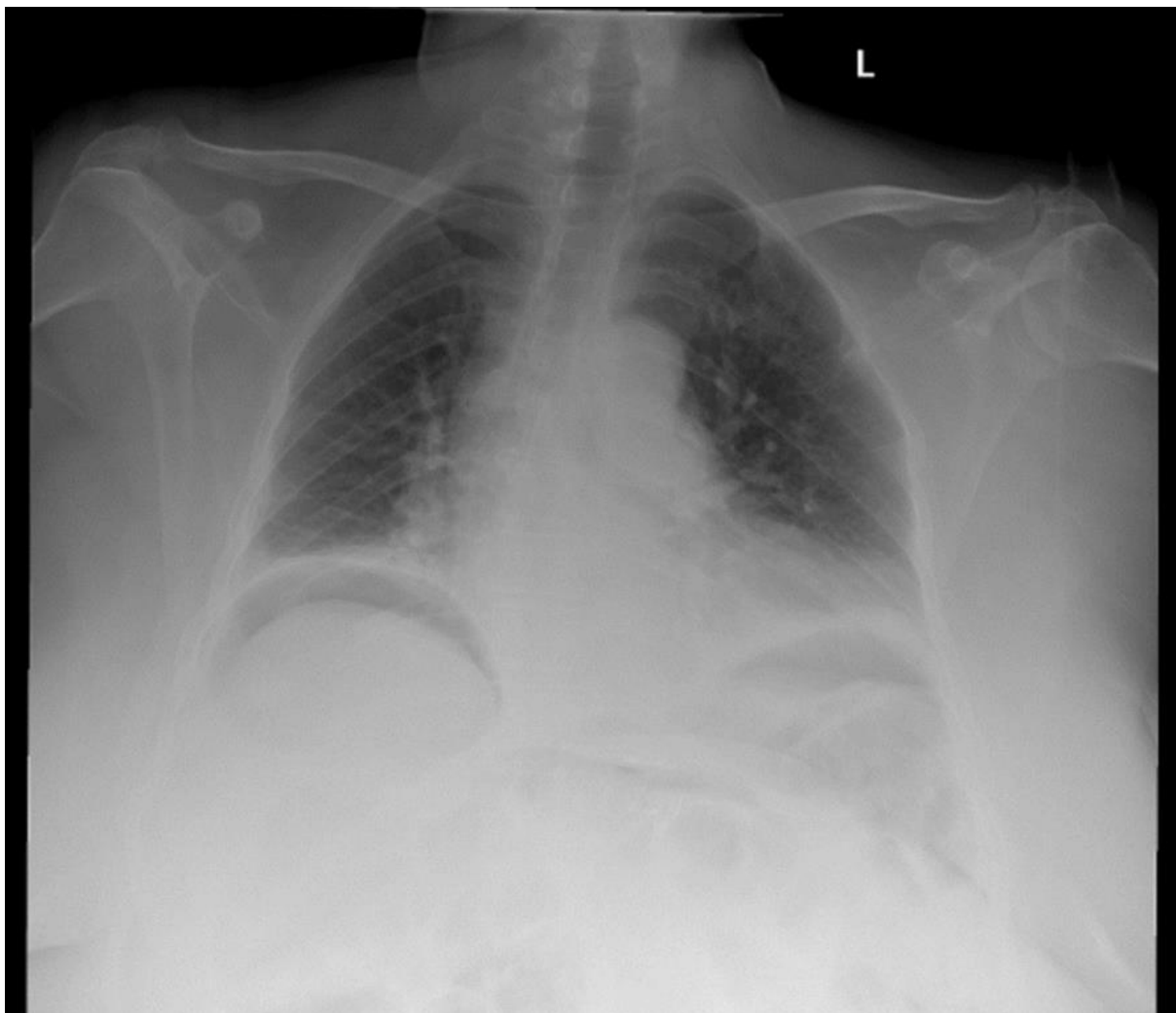
**2. What might you consider in your immediate differential diagnosis?**

Examiner Marking guide	One mark for each correct answer, max. 4 marks
	<ul style="list-style-type: none"> <li>• Bowel perforation or ischaemic bowel</li> <li>• Pulmonary embolism</li> <li>• Post-operative Pneumonia or chest infection</li> <li>• Diabetic ketoacidosis</li> <li>• Acute coronary syndrome</li> </ul>

**3. What radiological investigations would you perform?**

Examiner Marking guide	All answers required for mark. "CT chest/Abdo/Pelvis" insufficient for mark
	<ul style="list-style-type: none"> <li>• CXR</li> <li>• CT of chest with contrast [can say "CTPA"] and CT abdomen</li> </ul>

**4. A chest X-ray is taken. Please can you identify and interpret the main abnormalities?**



Examiner Marking guide	Show artefact 2 (chest x-ray 1). Can prompt for interpretation and remind candidate of history
	<ul style="list-style-type: none"> <li>Free air under the diaphragm bilaterally</li> <li>Bowel perforation</li> </ul>

5. The patient is taken to theatre for a laparotomy. A suture is noted to have caught and torn through a loop of bowel at the port site. The bowel is now perforated and there is extensive intra-abdominal soiling. She is admitted sedated and ventilated to the Intensive Care Unit. No other infusions are running. What is your interpretation of these findings, and what immediate treatment would you give?

### ICU Admission Haemodynamic parameters

Heart rate	135 bpm
Intra-arterial blood pressure (radial artery)	76/32
Capillary refill time	5s

Examiner Marking guide	Show Artefact 3 ICU Admission Haemodynamic parameters. Both points for 1 mark. Can prompt for amount and type of fluid.
	<ul style="list-style-type: none"> <li>There is intravascular volume depletion (or words to the same effect)</li> <li>Intravenous fluid bolus (accept 250-500 mls) of crystalloid (accept any reasonable).</li> </ul>

6. What other methods are available to assist in assessing a patient's volume status?

Examiner Marking guide	Prompt for more
	<ul style="list-style-type: none"> <li>Straight leg raising</li> <li>Oesophageal Doppler</li> <li>Transthoracic echocardiography</li> <li>Invasive methods: Dynamic pulse contour analysis (accept PiCCO or LiDCO) or PAFC</li> </ul>

7. How would you calculate pulse pressure variation and how is it used in assessing fluid responsiveness?

Examiner Marking guide	All for mark
	<ul style="list-style-type: none"> <li>Pulse pressure variation (PPV) = <math>(PP_{max} - PP_{min}) / PP_{mean}</math> over a respiratory cycle.</li> <li>PPV &gt; 10% in a ventilated patients suggests that the patient may be fluid responsive.</li> </ul>

8. The abdominal skin could not be closed at surgery, and a few days later in the ICU the dressing shown is applied to the wound area (see photo overleaf). What is this called and what is its purpose?

Examiner Marking guide	Show Artefact 4 – picture of VAC dressing system. Both points for 1 mark
	<ul style="list-style-type: none"> <li>A Wound V.A.C. (Vacuum Assisted Closure) dressing. It utilises a negative pressure (vacuum) to draw out fluid.</li> </ul>



**9. What non-clinical, professional actions need to be addressed once the patient is stabilised?**

Examiner Marking guide	Can remind candidate of history if required <ul style="list-style-type: none"><li>• Inform the surgical team at the hospital where the original procedure was performed.</li><li>• Duty of candour including speaking to the patient (once recovered) and her family, about the likely aetiology warranting her emergency surgery.</li></ul>
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**NB: Any patient names and details used in these examples are fictitious**