

1. Lead examiner

Candidate Number:

2. Co-examiner

Final Mark:

SCENARIO

You are on duty at 1800hrs in your ED. Ambulance brings in a 48 year-old man who suffered 2 episodes of large-volume haematemesis, estimated at 500ml each time. He had one episode of melaena.

On presentation, the patient is clammy, with a HR of 120/min and a systolic BP of 85 mmHg.

Question 1: Outline the key features in your History and Examination.*(included in stem)*

Expected Response	Details & Comments	2 min
Aims - to determine:	Risk - severity, complications, life threat Implications for acute Rx - need for emergent endoscopy (stem suggests so), reversal of coagulopathy Implications for resource utilisation - staff, rest of ED, need for transfer	
Severity of bleed	Estimated volume. Number of episodes/ over what period of time. Associated melaena. Haemodynamic compromise – Clinical evidence of shock (tachycardia, hypotension, shutdown etc) or significant volume loss (syncope, dizziness). Details of any fluid resuscitation and response to same.	
Past History / Risks	Risk factors for Life threatening upper GI bleed. Variceal haemorrhage: Known varices, prior chronic liver disease or risk factors for same (alcohol, hepatitis etc). Coagulopathy: Chronic liver disease. Warfarin/ anticoagulants. Antiplatelet agents (aspirin, clopidogrel) Peptic ulcer disease. Known history, risk factors such as steroid or NSAID use. Other: Prior upper GIT surgery, AAA repair etc. Other medical history: - Known cardiac and/or resp disease including smoking - which may affect capacity to cope with volume loss/resp compromise Medications which may blunt or obscure cardiovascular compensation (eg. β -blockers, anti-hypertensives) - Details of any treatments given thus far and response (eg IV fluid).	
Examination	Vital signs: <u>haemodynamic compromise as above</u> (PR, BP, peripheral perfusion, RR, postural BP, temperature). Mental status – confusion, flap Signs of chronic liver disease: Jaundice, splenomegaly, ascites, spider naevi, gynaecomastia, caput medusae, peripheral oedema. Abdominal examination – exclusion of surgical signs (not expected). PR for melaena/fresh blood. Baseline cardiorespiratory examination.	

Question 2: The patient reports a history of longstanding heavy alcohol intake. He takes no regular medications. On examination he is jaundiced with obvious ascites. His initial Hb is 100 g/dL (via bedside measurement). Outline your management.

Expected Response	Details & Comments	2 min
Underlying chronic liver disease and possible portal HT: risk of variceal bleeding. Potential life threatening bleed + possible coagulopathy (this should be corrected empirically)		
Urgent endoscopy	Indicated now. Will take time to facilitate, given late evening in peripheral hospital.	
Resuscitation	Large bore access. Saline 1-2 litre load. In view of Hx, early use of products appropriate. ie 2 units packed cells + reversal of coagulopathy. Monitor volume/haemodynamic status: Follow PR/BP/UO (insert IDC for hourly UO) and VBG (pH, Base excess, lactate) Seek and treat metabolic derangements, such as hypoglycaemia.	

Reverse potential coagulopathy	Vitamin K 10 units IV. FFP 4 units (10 ml/kg). Prothrombinex 25-50 IU/kg is an option but unlikely to be available. Platelets (1 megabag/ 4 units) if ongoing haematemesis/ melaena/ hypotension as likely thrombocytopaenic and ongoing blood loss. <i>Prompt: "Does his history of liver disease alter your early treatment?"</i>	
Medications	PPI infusion (eg. omeprazole 80 mg IV + 8 mg/hr) and octreotide (50 mcg IV + 50 mcg/hr); empiric ceftriaxone; IV thiamine.	
Consultation	Urgent discussion with gastroenterology service and intensive care	

Question 3: Following 2 units of packed cells and 4 units of FFP, the patient's haemodynamic status has improved, and stabilized. The gastroenterology registrar suggests that the patient be admitted for endoscopy on the morning list. Outline your response.

Expected Response	Details & Comments	1.5 min
Urgent endoscopy tonight ideal.	Major upper GIT bleed with haemodynamic instability requiring blood products. Possible underlying varices/CLD = potential further major bleed. Endoscopy best done now as controlled procedure rather than emergent contingency in middle of night.	
Escalate to gastroenterology consultant if required	Gastroenterology consultant should be involved with, and supervising this gastroscopy.	

Question 4: The patient has a further large haematemesis in the ED, The Gastroenterology service agrees to perform immediate endoscopy. They ask if the ED could assist with performing endoscopy in a resuscitation room as anaesthetic personnel are occupied in theatre.
Outline the issues involved in this situation.

Expected Response	Details & Comments	1.5 min
Current ED workload + staffing	Will require resuscitation room + senior medical and nursing staff Will require sedation and possibly intubation. Particularly high risk scenario – unstable pt, airway at risk	
Anaesthetist/OT availability	Discuss with anaesthetist. What will be the delay? Is it clinically appropriate. What options are there for calling in additional staff.	
Department/ Hospital policy	Is there an agreed policy for this situation?	
Clinical indication	Endoscopist requires appropriate skills and equipment to perform therapeutic scope	
Medicolegal	Consent, particularly if pt confused and shocked Scope of practice	

Comments: (if you fail the candidate, please state why)

If the candidate fails the exam overall, what feedback would you suggest CIC provide for this SCE?

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