



AUSTRALASIAN COLLEGE
FOR EMERGENCY MEDICINE

2016.1B FELLOWSHIP CLINICAL EXAMINATION (OSCE)

STATION 15 MANAGEMENT OF A LIFE-THREATENING LOWER GI BLEED

1. STATION SUMMARY

This station is designed to assess the candidate's ability to assist a junior registrar in the management of a patient with life-threatening lower GI bleed, complicated by a direct oral anticoagulant (DOAC). It should explore the candidate's knowledge, and ability to apply it to this particular case. The candidate's communication skills will also be assessed against consultant standards.

2. CANDIDATE INSTRUCTIONS

You are working as a consultant in a tertiary Emergency Department.

The ED junior registrar (first year Advanced Trainee) seeks your advice about the management of 74 year-old Peter Smith, who presented with a large-volume PR bleed. Mr Smith has a background of atrial fibrillation and is on dabigatran.

The registrar has completed the initial assessment and will provide the history, examination and relevant investigations to date.

Your tasks are to:

- Establish key issues from the patient's clinical assessment.
- Interpret available laboratory results.
- Advise the registrar on further assessment and management of Mr Smith.

You will not be required to see the patient or perform any examination.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

3. ROLE-PLAYER INSTRUCTIONS

You are a junior registrar working in a tertiary Emergency Department. You have just completed assessing Mr Peter Smith, a 74 year-old retired builder. You are not sure how to manage him and are therefore seeking the help of the candidate, who is the supervising consultant of the shift.

The blood results will be available to show the candidate.

The candidate is expected to:

1. Identify that the patient has had a major lower GI bleed on a DOAC
2. Provide an outline of the management of a lower GI bleed including appropriate investigations and consultations with relevant inpatient specialists for definitive management
3. Demonstrate knowledge of the management of bleeding complications secondary to DOACs, including the use of specific reversal agents.

The clarification of history and examination findings should be complete by approximately 3 minutes.

At the end of the discussion regarding the history and examination findings and results, please prompt the candidate if (s)he does not provide the required advice by asking questions such as:

- *'What should I do?'*
- *'Are there any other additional blood tests that I need to do?'*
- *'Whom should I consult?'*
- *'What are the options for reversal?'*

Setting:

Emergency Department of Tertiary Hospital at 1030am

History:

Peter has been unwell for the last 4 days, with crampy lower left abdominal pain and intermittent PR bleeding, namely dark blood mixed in the stool. This morning the abdominal pain worsened; he passed a large amount of brighter blood possibly, estimated at 1 litre. He felt dizzy, particularly on standing. He was driven to the ED by his wife. He has no other significant symptoms.

Past History:

Hypertension for 2 years. 6 months ago he was diagnosed with chronic atrial fibrillation. The treating cardiologist commenced him on diltiazem and dabigatran.

Medications:

Diltiazem CR 240mg OD, Dabigatran 150 mg BD. Not on antiplatelet agents. Took all his medications at 0730hrs today. No drug allergies / adverse reactions.

Social History:

Lives with his wife in an inner city apartment. Regular alcohol use (a glass of wine daily). Independent with activities of daily living. Retired builder.

Examination:

PR 90; BP 85/55; RR20; Temp 37.3°; SpO₂ 99% RA; cool peripheries.

Abdomen: tender suprapubic region with voluntary guarding. Not rigid. Bowel sounds present. PR: fresh blood on glove.

Systemic examination: normal



Blood Tests:

See above.

Management to Date:

- The patient is in a resuscitation cubicle with non-invasive monitoring.
- Two large-bore IV cannulae have been inserted.
- You have commenced a Normal Saline IV infusion.
- You have ordered a Massive Transfusion pack.

4. EXAMINER INSTRUCTIONS

This station is designed to assess the candidate's ability to assist a junior registrar in the management of a patient with life-threatening lower GI bleed, complicated by a direct oral anticoagulant (DOAC). It should explore the candidate's knowledge, and ability to apply it to this particular case. The candidate's communication skills will also be assessed against consultant standards.

History:

The patient is a 74 year-old man who was recently diagnosed with atrial fibrillation and commenced on Diltiazam and Dabigatran. He is usually well but over the last 4 days experienced lower abdominal pain with small amounts of blood on the toilet paper. Today he passed a large amount of clotted PR blood, which he estimates at 1 litre. He has since reported dizziness and ongoing crampy abdominal pain.

Findings:

PR	90	bpm, in AF
BP	85/55	mmHg
RR	20	/min
Temp	37.3°	deg C
SpO ₂	99	% on room air

Cool peripheries. Abdomen: tender suprapubic region with voluntary guarding. Not rigid. Bowel sounds present. PR digital exam: fresh blood on glove.

Systemic examination: normal

Relevant Investigations:

Hb	65	g/L	(115 to 150)
Platelets	176	x 10 ⁹ /L	(140 to 400)
WCC	9.0	x 10 ⁹ /L	(4.0 to 11.0)
Na	138	mmol/L	(135 to 145)
K	3.7	mmol/L	(3.5 to 5.0)
Urea	16.4	mmol/L	(3.0 to 8.0)
Creatinine	154	micromol/L	(70 to 110)

Key Actions Expected from Candidate

The candidate is expected to:

1. Identify that the patient has had a life-threatening GI bleed on a DOAC.
2. Provide an outline of the management of a lower GI bleed including appropriate investigations and consultations with relevant inpatient specialists for definitive management.
3. Demonstrate knowledge of the management of bleeding complications secondary to DOACs, including the use of specific reversal agents.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

Full Blood Count

Hb	65 g/L	(115 to 150)
Platelets	$176 \times 10^9/\text{L}$	(140 to 400)
WCC	$9.0 \times 10^9/\text{L}$	(4.0 to 11.0)

Serum Biochemistry

Na	138 mmol/L	(135 to 145)
K	3.7 mmol/L	(3.5 to 5.0)
Urea	16.4 mmol/L	(3.0 to 8.0)
Creatinine	154 micromol/L	(70 to 110)

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 15



EXAMINER 1
barcode

CANDIDATE barcode

EXAMINER 2
barcode

COMPONENT ASSESSMENT

For each Domain below, select the **ONE** option that best represents the candidate's level of performance. The option **"Minimum level of competency displayed"** represents the level of safe independent practice as a **Junior FACEM** in Australasia.

Very poor
level of
competence
displayed

Well below
minimum
level of
competence
displayed

Below
minimum
level of
competence
displayed

Minimum
level of
competence
displayed

Above
minimum
level of
competence
displayed

High level of
competence
displayed

Very high
level of
competence
displayed

Please rate **ALL** the following domains:

Medical Expertise ☐ ☐ ☐ ☐ ☐ ☐ ☐

Communication ☐ ☐ ☐ ☐ ☐ ☐ ☐

Detailed assessment criteria

Please use the following criteria to inform your ratings above

	Management of lower GI bleed
	I. General:
	1. Clarify what has been done by the junior registrar (transfer to resus, activate massive blood transfusion, 2 large IV lines etc) and ensure these occur as a matter of urgency
	II. Investigations:
	1. Additional blood tests: FBC, coagulation profile, eGFR, LFTs
	2. Specific tests for dabigatran: ThrombinTime and APTT. Thrombin time/thrombin clotting time is prolonged with dabigatran. May be possible to order a dabigatran level. Candidates may mention ROTEM but should understand that it has limited use in this setting.
	3. Diagnostic studies: CT angiography to localize the bleeding source and aid in planning embolisation. Candidates should note the use of contrast in the setting of mild renal impairment but recognize that benefits outweigh risks. Colonoscopy less likely to be helpful in this setting.
	III. Treatment
	1. Fluid resuscitation: limited role for crystalloid unless blood not immediately available.
	2. Blood transfusion. Packed red cells to maintain Hb above 90 g/L.
	3. Platelet count is normal, so platelet transfusion is not required.
Medical Expertise	IV. Reversal of Dabigatran
	1. Reversal is mandatory in this case because of life threatening bleed.
	2. Idarcizumab (Praxbind) is used for emergency reversal. (Two IV doses of 2.5g are given 15 minutes apart. Reversal is noted by an improvement in Thrombin Time).
	3. Many sites will not have access to Idarcizumab. Other reversal agents include Prothrombin Complex Concentrate (PCC) and recombinant VIIa. Tranexamic acid may also be considered. In any case, liaison with Haematology is mandatory.
	4. Consider haemodialysis.
	5. Vitamin K and FFP have no role in reversal.
	V. Consultations
	1. Haematologist for reversal advice.
	2. General Surgeon if Interventional Radiology not available or unsuccessful. Colonoscopy is unlikely to be helpful in this setting and failure of reversal/haemostasis may require bowel resection.
	3. Interventional Radiologist for mesenteric angiography and possible embolisation
	4. Intensive Care.
Communication	• Listens to registrar and identifies all key issues. • Provides clear advice to the junior registrar in a supportive manner. • Explains rationale for various investigations and treatment, including their relative priorities. • Assists registrar to prioritise tasks.



Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 15



INFORMATION

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EXAMINER NOTES (For examiner reference only)

OSCE 'incident reporting' notes: Please provide details if an issue occurs which may influence this candidate's exam outcome e.g. protocol breach, candidate illness etc.

GLOBAL RATING FOR STANDARD SETTING:

This scale is used in the standard setting process for the OSCE. Please rate the candidate's OVERALL performance in this OSCE. The rating should take into account the entirety of the OSCE, rather than just a sum or average of the individual domain scores. This element MUST be completed for the standard of the examination to be set.

	Well Below Standard	Below Standard	Just at Standard	Above Standard	Well Above Standard
In terms of a safely practising junior emergency physician , select the ONE option that best reflects the candidate's performance in this station:	☐	☐	☐	☐	☐

EXAMINER SIGNATURE:



OSCE 1