STATION 1
SIMULATION DOUBLE STATION

1. STATION SUMMARY

This station is a simulation double station. The candidate has been called about an incoming trauma – a 24 year old man involved in a motorcycle crash. The candidate is to prepare the resuscitation team for this patient's arrival, receive clinical handover from the ambulance crew, lead the team's ongoing assessment and management and make appropriate referrals.

2. CANDIDATE INSTRUCTIONS

This is a Simulation Double Station.

You are the Consultant on duty in a small regional ED, it is 2000hrs on a weekday. You have been called about an incoming trauma.

Your Setting:

- Regional ED
  - 2 hours by road from the nearest trauma centre
  - Aeromedical Retrieval response time 25 min
- ED staff: 1 experienced Registrar, 2 ED nursing staff
- On site: radiographer, standard lab facilities, blood bank
- On call: General surgeon, CT radiographer (30 min response time). No orthopaedic service

The Patient:

Ambulance control ring to pre-notify you of a 24 year-old man involved in a motorcycle crash. He was thrown from his motorcycle after losing control at a road bend. He was wearing a helmet. Ambulance personnel arrived at the scene within minutes of the crash. The patient is alert, complaining of lower abdominal pain. His vital signs are GCS 15; HR 130/min; BP 80/50 mmHg; O_2 Sats 97% on air, RR 24/min. The patient is not intubated. Estimated time of arrival is 3 minutes.

Your tasks are to:

- Prepare your resuscitation team for this patient's arrival
- Receive clinical handover from the ambulance crew
- Lead your team's ongoing assessment and management
- Make appropriate referrals

This OSCE will assess the following domains:

- Medical Expertise
- Teamwork and Collaboration
- Prioritisation and Decision Making

3. ROLE-PLAYER INSTRUCTIONS

This adult trauma scenario involves a mannequin, two competent nurse confederates, one competent registrar confederate, standard airway equipment, and an iPAD monitor for patient vitals. Standard fluid/ blood giving sets and a warmer will be available. A white board will be used to record patient medications/orders, infusions, fluids etc. Each of these will be recorded by one of the nurse confederates.

The candidate will be expected to prepare the resuscitation team in a regional ED for the arrival of a young male patient involved in a high speed motorbike accident before a paramedic (role played by one of the examiners) arrives and gives handover. The patient requires a standard trauma assessment. He has a severe pelvic fracture with ongoing bleeding resulting in persistent hypotension (haemorrhagic shock). The patient requires initiation of blood products in a 'massive transfusion protocol' situation. The patient requires transfer to a Tertiary trauma centre. The Candidate will discuss the patient with the General Surgeon who arrives. The scenario finishes with preparation to transport the patient by helicopter to the Trauma centre.

Your role as a registrar:

- You are a competent Emergency Department registrar with all resuscitation and trauma skills
- You are competent in performing a primary and secondary survey and will convey the findings to the candidate.
- Your role is important in moving the scenario in the correct direction in a timely manner
- You provide information to the candidate about examination findings
- You give prompts where appropriate about changes in patient condition.

Your role as a nurse:

- You are a competent ED nurse
- You will confirm all doses/ orders with the candidate, where appropriate you will write on the whiteboard
- Where observations or the situation changes you will convey this information.

However

- You will not show initiative or suggest solutions/problems e.g. If the BP is low you will merely state *'The BP is 75*' and try to avoid statements that tend to suggest that there is a problem needing fixing *'The BP is still low at 75, should we do something about that'* or potential solutions *'Would you like to give some fluid for that?'*. This can be difficult as it is the opposite of good nursing practice.
- If a candidate has mentioned a particular treatment/management earlier in the scenario which has not actually been delivered it is reasonable to give a reminder e.g. *'What did you say earlier about the BP?'* or *'should we give the x now?'*

Stage 1: Preparation

- The Candidate will arrive and begin planning for the arrival and assign roles
- You can reinforce important information about your Regional Hospital if asked
  - General surgeon + Anaesthetist, no Orthopaedics
  - Trauma centre: 2hrs by car, helicopter retrieval 25mins once activated
  - O-ve blood/ Blood products/FFP/etc available
  - Radiographer here for Xray, can do FAST
  - Standard blood tests available, blood gas analyser in ED
  - CT radiographer call in – 30 min response time
- You may ask candidate the following prompts (x1 each)
  - *'What jobs would you like me/us to do?'* if no tasks assigned
  - *'Is there anything you would like me/us to get ready?'* if no requests made

- *'Is there anyone we need to call?'* if no calls made

Stage 2: Arrival

You competently perform primary and secondary survey. Nursing staff can obtain access and take bloods. You communicate your findings to the Candidate.

A – Patent and protected. GCS 15/15. C/o severe pain in lower abdomen and back.

B – RR 28, SaO2 95% RA, good bilateral air entry, no pain on palpation chest, no subcutaneous emphysema.

C – Pale, sweaty, shut down. Palpable radial pulse. HR 130/min, BP 80/40. Tender lower abdomen. No binder in situ. No femoral fractures or external bleeding.

D – Moving both legs. Can feel his feet.

E – Temperature 35.9 degrees. Clothes being removed.

Temperature management is a critical competency – the initial temperature should be communicated clearly once to the candidate (there is a reminder later on).

Stage 3 Initial Assessment and Management

Candidate should coordinate the following:

- Analgesia – ongoing aliquots, pain gradually improving.
- IV access – Tell them *'He has an 18 g L ACF'*, they should suggest 1-2 16g or larger cannula which you put in rapidly.
  - Ask them what bloods they wish taken: Should specify VBG, X-match, FBE, UEG/LFT, coag profile
  - Fluid loading
    - If they do not specify ask them what fluid/rate
  - They should specify warming of all fluid especially products
    - If they fail to there will be another reminder of their Temp later
- CXR/ pelvis Xray/ FAST scan
  - Ask *'What do they show?'*
- Bloods including VBG.
  - Ask *'What does the gas show?'*
  - Must explain:
    - Metabolic acidosis/ elevated lactate/ base deficit due to shock
    - Respiratory compensation
    - Hb low (early Hb –predilution)

    If necessary ask *'What's the CO_2…what's the Hb?'*
- Pelvic binder placement
  - You will indicate that your primary survey reveals a very tender lower abdomen and pelvis
  - You will ask after the pelvis xray is done *'What does it show?'* and *'Do we need to do anything for the pelvic fracture?'*
  - If you are asked to place a binder you will ask the candidate to check that you are doing it correctly.
  - If the candidate instructs you to place the binder early then do so and tell the candidate *'The xray was taken before the binder was placed'*
- Secondary survey: Candidate should ask you to perform. Convey the following.
  - No head or facial injury, no neck pain.
  - No upper limb injuries.

- Tenderness and bruising lower abdomen.
- No long bone # in legs. Pulses present. Sensation and power seems intact.
- Ask them *'Should we do a log roll?'* if they have given no instruction. They may respond
  - No, concern re pelvic #
  - Yes, with caution re pelvic #

Stage 4: Ongoing Shock

The patient will not have a sustained response to fluid loading. They will remain pale, clammy and tachycardic.

It is expected that the candidate will give them 2-4 units of blood before transitioning to MTP principles (using other blood products) and a lower BP target

- HR will remain 130/min
- BP will respond to loading with blood to reach SBP 90 initially but will then fall to 80-85. Pulse will be palpable with this.
- If do not give adequate fluid initially then will become hypotensive to SBP 70 and become less responsive (HR 140), they will lose their radial pulse.
- BP will drift down below 80 requiring further blood on several occasions.
- Notify the Candidate any time the BP drops
- After 1 bag of blood is given you/nurse will indicate that T is 35.5 C if blood warmer not being used. If warmer is used T will stay at 36.

If the candidate moves towards using other blood products/MTP ask them:

- *'What is the plan with the products'*
- *'What BP are we aiming for?'*

Stage 5 Preparation for Transfer (after Candidate discussion with Surgeon RP)

If necessary ask the candidate *'What do we need to do for transfer?'* If the above conversation regarding blood products/targets has not occurred it should occur now.

If time permits ask regarding the need for:

- Intubation (the patient has a GCS of 15)
  - *'Will he need intubation for transfer?'*
- Arterial line
- IDC – *'Should we put in an IDC?'*

4. EXAMINER INSTRUCTIONS

Examiners have 2 roles:

1. Ambulance handover (at 2-3 minutes)
2. General Surgeon – discussion with candidate regarding patient status and decision making regarding imaging / transfer (at 13 minutes)

Ambulance Handover in IMIST AMBO Format (Examiner Role-play)

***Identity** – 24 year old male, Jack Smith. **Mechanism** – MBA at 80 kph, helmeted, failed to make a bend on slippery road, thrown from bike onto grass. Witnesses called ambulance who arrived within 10 minutes. **Injuries**: Alert, lying on the grass, complaining of lower abdominal, back, and pelvic pain. Airway / Chest normal. No upper or lower limb injuries noted. No neck or thoracic pain. **Signs**: GCS 15/15, HR 130, BP 80/50, looks unwell, pale and clammy. RR 24, SaO2 97% RA, bilateral equal air entry. No other injuries apparent. **Treatment**: 18 g IV L ACF, 500 ml N Saline, 5 mg morphine. C-collar applied. **Allergies**: No allergies. **Medications**: No regular meds. **Background**: No medical history or **Other** details of note.*

If asked, the Ambulance will say *'Yes, he was moving his legs'* and *'Sorry no, we haven't placed a binder'*

Scenario Progress Summary

Jack has an unstable pelvic fracture with severe persistent (?) arterial bleeding. He has several superficial abrasions but no other injuries. He presents in haemorrhagic shock and fails to have a sustained response to fluid loading. Ongoing blood products are required. Investigations reveal an open-book pelvic fracture as the only apparent source of his hypotension. Early transfer to tertiary trauma centre for definitive management is indicated.

Key Actions Expected from Candidate

Preparation: Trauma team activation and preparation of receiving team in small, regional ED. Role allocation. Anticipate needs. Prepare fluids, drugs, equipment. Pre-notification of other services: blood bank, radiology, surgeon. Consider suitability of transfer to tertiary centre after initial assessment and management.

Initial care:

- Directs and asks for results of primary survey. Reassesses regularly.
  - Airway OK and stable. Maintain C-spine collar.
  - Breathing OK. SaO2 97% RA- may provide high flow oxygen.
  - Circulation is focus of concern. Signs of hypovolaemia present. Establish 2 large bore IV access. Take bloods for comprehensive panel, including cross-match. Fluid resuscitation: Rapid infusion of crystalloids initially reasonable however early use of blood products indicated (particularly once pelvic # seen). Avoid hypothermia – active warming of blood products mandatory. No external haemorrhage seen.
  - Neurological: No disability, low back pain indicates need to assess for lower limb neurology (?spinal injury) .
  - Exposure and environmental control. Maintain normothermia.
- Initial treatment
  - Place Pelvic binder
  - IV analgesia (fentanyl / morphine), +/- antiemetics.
  - IDC at some stage (if no signs or urethral trauma eg.blood at urethral meatus etc.)
- Preliminary imaging
  - CXR, pelvis Xray, C-spine
  - FAST scan: Radiographer performs: negative result. Remains –ve if repeated.
- Initial bloods: X-match, VBG, FBE, UEG/LFT, coag profile

- VBG interpretation (*Registrar to prompt for details*)
  - Metabolic acidosis/ elevated lactate/ base deficit due to shock
  - Respiratory compensation
  - Hb low (early Hb –predilution)

Ongoing care:

- Secondary Survey: Directs registrar to complete examination. Log roll with caution or omit, given pelvic injury. Candidates should acknowledge this limitation.
- **Key aspect: Recognition of uncontrolled haemorrhage**. Recognising persistent haemorrhagic shock despite fluid therapy. BP never improves significantly with fluid loading, VBG shows significant acidosis. BP will fall if inadequate fluids given. Early recognition of need to progress to blood / blood products. Awareness of potential need for activation of Massive Transfusion Protocol (MTP). MTP will vary between candidates, but they are expected to specify PC, platelets and FFP in roughly equal ratios. Recognition of ongoing haemorrhage with reasonable parameters/end points recognising that is early in resuscitation process. Will advise team re these as part of 'preparation for transfer'.
- **Disposition/Management**: Surgeon en route, CT radiographer potentially also. This patient has a major pelvic fracture with ongoing hypotension. There is no injury obviously amenable to laparotomy – the candidate should recognise that expedition of transfer to tertiary centre for possibility interventional radiology is in his best interest. CT will delay transfer. Nursing staff will ask *'shall we activate an aeromedical retrieval*? They can be here in 25 minutes'. Candidate is expected to articulate in a conversation with the Surgeon the key problems, and decide if the patient should have urgent CT, emergent laparotomy, or urgent transfer to tertiary service.

  General Surgeon – Candidate conversation (Examiner role play)

  This can occur as 'face-to-face'. Key aspects are:

  - Summary and priorities

    "What is the situation?"

    "What do you think needs to happen"

    Candidate should decide that patient needs urgent transfer to the nearest tertiary centre for potential angiography etc. If they do not explain this then ask *'Why do you think that?'*. The retrieval team can be here in 25 minutes. If candidate summary and plan is appropriate then agree. The Candidate should then have approximately 2 minutes to make further plans with his team.

    If the candidate is discussing CT scanning you should say – *'That always takes a while to perform here at night….should we try?'*

    If they suggest a laparotomy ask them *'What do you think we will be able to fix?'* If necessary ask them *'The FAST was –ve wasn't it?'*. If they suggest pelvic packing say *'I think we'd be better leaving the pelvis alone'*.

- **Preparation for transfer**
  - Blood products: Plan for ongoing use/ targets
  - Intubation
  - IV access, art line, monitoring, IDC, other

Key Assessment Issues:

Structured approach to major trauma, teamwork and leadership, effective communication, fluid resus and MTP, decision making re further imaging (or not), decision making re timing of transfer to tertiary centre.

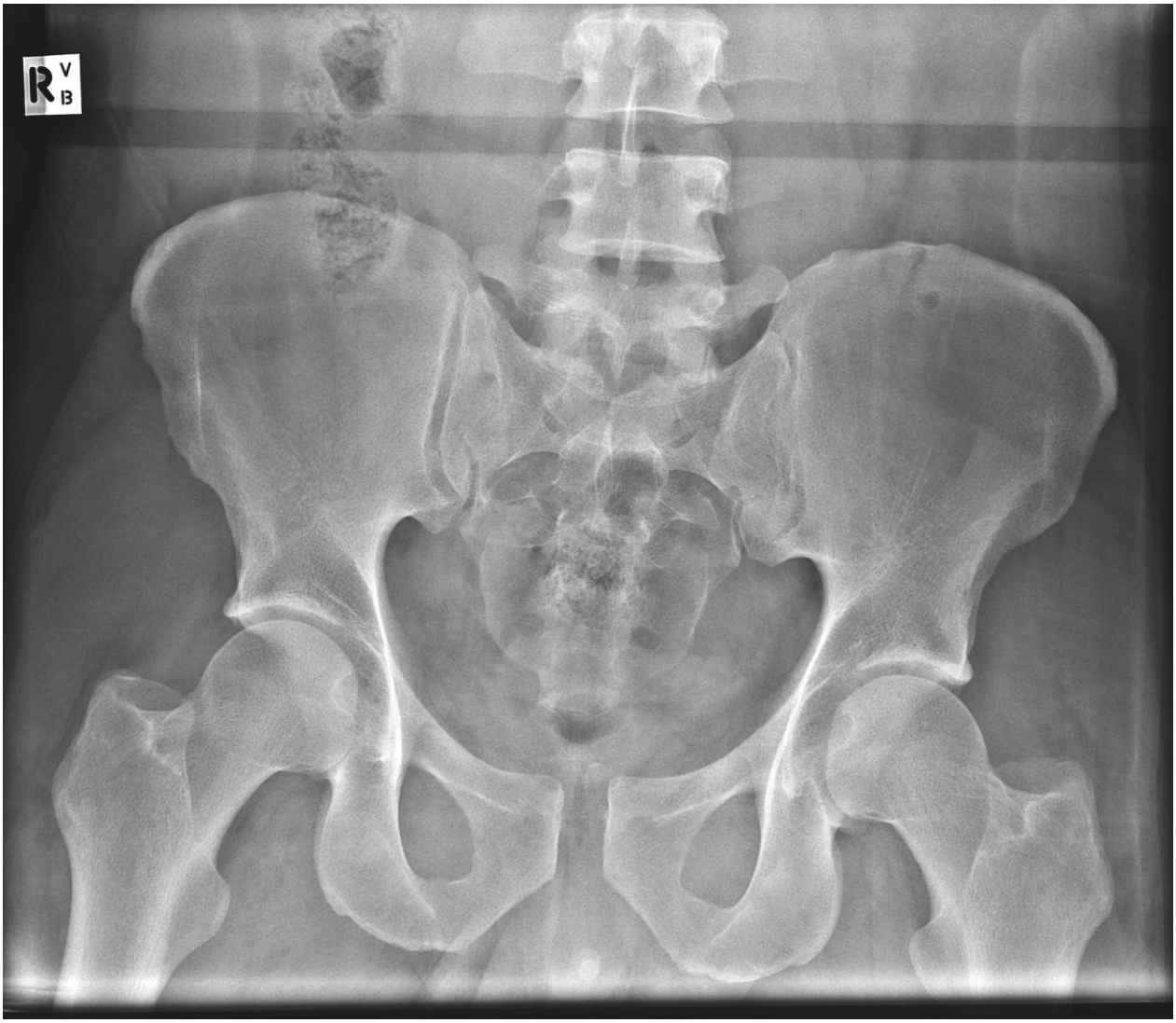
This OSCE will assess the following domains:

- Medical Expertise
- Teamwork and Collaboration
- Prioritisation and Decision Making

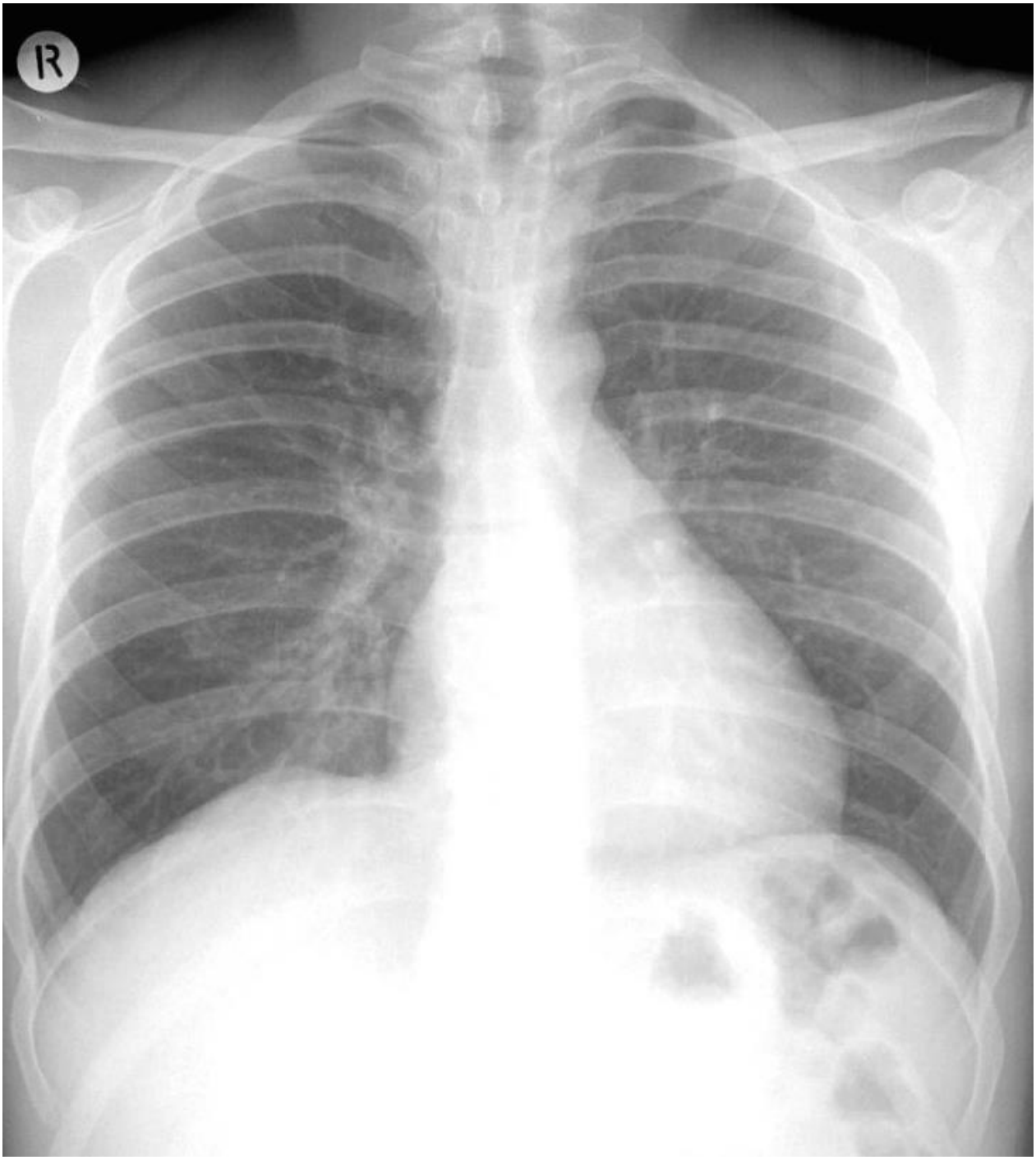
Venous Blood Gas

		Reference range
FiO_2	On high-flow O_2	
pH	7.23	7.35 – 7.45
pO_2	30	30 – 40 mmHg
pCO_2	25	41 – 57 mmHg
HCO_3	15	24 – 28 mmol/L
O_2 sats	70	70 - 75 %
Base Excess	-8.2	(-2.5 - + 2.5)
Na+	145	135 – 145 mmol/L
K+	3.5	3.5 – 4.5 mmol/L
Glu	7.0	6.5 – 8.5 mmol/L
Hb	107	135 – 180 g/L
Lactate	8	(< 2.0)

Pelvis Xray



Chest Xray



Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 1

CANDIDATE barcode

EXAMINER 1 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	○	○	○	○	○	○	○
Teamwork and Collaboration	○	○	○	○	○	○	○
Prioritisation and Decision Making	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise	• Trauma team preparation: **Role allocation. Anticipate needs -Fluids, drugs, equipment. Blood bank**, radiology, surgeon. ? need for transfer to tertiary centre.
	• Primary Survey: Directs structured, prioritised approach to injured patient.
	• Initial management: **IV access large bore**. Analgesia. **Pelvic binder**.
	• Initial Investigation: **CXR, pelvis Xray**, C-spine, **FAST. VBG**. FBE/UEG/LFT. Coag. **X-match**.
	  ○ VBG: **Metabolic Acidosis c/w hypovolaemic shock, resp compensation. Low initial Hb**.
	• Secondary Survey: Directs registrar.
	• Circulation: **Recognise hypovoalemic shock**.
	  ○ Fluid resuscitation: **Early use blood product**s (not > 1 litre crystalloid). Avoid hypothermia – **active fluid warming**.
	• Recognise possible uncontrolled haemorrhage in setting pelvic #. **Ongoing resuscitation with appropriate target** (eg. BP >80, palp pulse). **Rational use blood products**: MTP (FFP, plt, cryo)

Teamwork and Collaboration	• **Effective coordination of ED team response,** Updates as priorities change • Effective interaction with Surgical Colleague • Preparation for transfer.
Prioritisation & Decision Making	• Preparation for arrival • **Initial reception of hypotensive trauma patient: Differentiation of cause + management** • **Decision making regarding transfer priority vs investigation such as CT**

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 1

INFORMATION

Station Summary: This station is a simulation double station. The candidate has been called about an incoming trauma – a 24 year old man involved in a motorcycle crash. The candidate is to prepare the resuscitation team for this patient's arrival, receive clinical handover from the ambulance crew, lead the team's ongoing assessment and management and make appropriate referrals.

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.

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 2
DEVELOPMENT OF A DISASTER PLAN

1. STATION SUMMARY

The candidate is to have an initial meeting with a senior ED nurse to develop a disaster plan for a new department.

2. CANDIDATE INSTRUCTIONS

You are a consultant in a regional hospital preparing to move into a new emergency department. Your director has assigned you to work with a senior RN to develop the ED disaster plan for an external mass casualty incident.

A copy of the final floor plan of the emergency department areas and surrounds is provided.

You are about have an initial meeting with this RN to formulate how this might practically apply in the new department. Your initial focus is on how you will deliver the key components required in an effective ED response using the specific clinical areas of your new ED.

Your tasks are to discuss:

- Key elements of an effective ED response to a mass casualty incident
- Optimal utilisation of the floor plan of the new department in a mass casualty incident

This OSCE will assess the following domain:

- Medical Expertise

3. ROLE-PLAYER INSTRUCTIONS

You are a senior Registered Nurse (RN) in a regional ED that is preparing to move into a new department. You have been assigned to develop the department's response plan to an external mass casualty.

An Emergency Consultant – the candidate – has been assigned to develop this with you. You are about to have your initial meeting to discuss this.

You should introduce yourself and acknowledge that this is an initial, exploratory (?) meeting. The candidate should lead the discussion.

You have a floor plan of the ED. Neither the design of the ED or location of other areas (such as outpatients, hospital entrances) can be changed.

The OSCE is aimed at assessing knowledge of disaster planning as it relates to the ED itself. Candidates who discuss prehospital procedures, activation process, existing patient load, regional response should have the issues acknowledged, but then should be directed towards disaster issues more specific to ED.

The aim of this initial meeting is not to focus on the fine detail, but rather to cover:

- Optimal utilisation the floor plan for the ED
- Staffing
- Equipment and communication
- Security
- Media
- Family

<u>Departmental Floor Plan Utilisation</u>

1. Triage: On plan is located between ambulance entrance and walk in entrance, so covers both points.
   - *'Where will patients go when they arrive?'*: Discussion about triage locations
     - *'What about walk in's?'*
     - *'Could have a separate triage area for walk-in patients in an area near the "green" area as you don't want the walk in patients to clog up this "critical" area'*
2. Disposition based on injury (Red/Yellow/Green/Black): Geographical triage.
   - *'Where are they going after triage?'*
   - *'We might have to deal with a lot of people with no or minor injuries…'*
   - *'Some patients might have terrible injuries…or deaths'*
   - *' We may need to decant patients from ED rapidly'*
   - *'Worst case scenario is we are already busy or full of patients*'

   a. Resuscitation (Red): There are three resuscitation rooms
   b. Acute (Yellow): Remaining beds could be used for less critical patients, who are not ambulatory.
   c. Ambulant (Green): Better candidates would suggest use of Fracture clinic or out-patients areas for ambulant patients.
   d. Expectant (Black): Candidate may select an area for these patients, options include the Observation ward, a particular bay, or elsewhere in the hospital.

e. Other Hospital area(s) that may be utilised for clinical and non-clinical reasons
   - **Outpatients department:** Potential uses would include staff assembly / reporting point, before being directed to where required. Could also be used as either a relatives holding area or a media area – although not the two together, and it would be preferable to have any media at a site distant from staff, relatives, treatment area and where they can be controlled.
   - **Fracture clinic:** Best use would likely be as an additional area for ambulatory patients as it is next to main ED if mis-triaged or deteriorate. Is easily controllable from access point of view – one entrance near main entrance and a back / secure entrance off the internal part of the ED.
   - **"Elsewhere"** this could be a room in another building if appropriate e.g.: for media management.

Staffing:

- *'What initial staffing will we need to plan for?'*
- *'What about if the incident goes on for multiple shifts'*
- *'How can staff get into the hospital if the entrances are blocked with surge patients?'*
- *'Where will staffing be coordinated in the ED?'*

Options for assembling arriving staff:

- Deleted as those provided were duplicated or non-descript.

Equipment:

There is a disaster equipment storage area in the ambulance entry corridor opposite the triage room. Better candidates would note this and give examples of equipment such as triage tags, disaster packs – pre-printed labels/ tubes using disaster record numbers.

- *'What equipment might we run out of?'*
- *'What disaster specific equipment might we need?'*

Communication: – needs issues/prompts

Better candidates will spontaneously discuss communication issues.

- *'How will we communicate between clinical areas?'*

Security:

The department and hospital may need to be sealed or have access controlled.

Identify three key entry / exit points:

- Ambulance entry: Need to be kept clear for ambulance access, and prevent access of media and relatives.
- Main Hospital Entrance: Would need secured and entry controlled.
- Rear Hospital Entrance: Would need secured and entry controlled.

Recognise that need to protect treatment area

- *'There might be a lot of people arriving and trying to get in at once…how would we suggest security deal with that?'*

Media:

This needs to be at a controllable site away from patients, staff and relatives.

There is no ideal area noted on the plan. A good candidate would suggest use of another area in the hospital with an appropriate media liaison officer.

Hospital teaching area / lecture room- has AV facilities

Relatives:

This may be dependent on where the candidate chooses to assemble staff. They can either assemble relatives at a controllable location in another building of the hospital, or in the Outpatients area that has controlled access but is separate to treatment areas.

Other:

General Comments:

The candidate is expected to lead the discussion and suggest areas / solutions to the key elements. You should guide them if they do not provide a key element – but only in the general direction. The candidate is expected to provide the detail.

Examples:

For a candidate who has not mentioned security issues / entrance control, you might ask *'Do you think there are any security issues we need to think about?'*

If a candidate has not suggested one of the major areas e.g.: ambulant patients, you might suggest, *'We've got the critical patient area defined, are there any others we need to think about?'*

If a candidate does not suggest utilising the fracture clinic in some way, you could ask *'We've assigned areas but I think space will be a challenge, do you think we have any other options?'*

Similarly for a candidate who does not raise the issue of relatives and/or media areas, you could state, *'We've dealt with staff arrivals, are there any other groups that could be an issue?'*

To direct to equipment, would have to ask *'What about equipment issues?'*, but again the candidate should provide the detail.

Some (probably few) candidates may efficiently deal with all the 'Geographical issues' above. In that case just move onto a general disaster discussion.

'What else is going to be important in our overall mass casualty plan in the new ED?'

- Records and clerical aspects: patient tracing
- Communication – phones etc.
- Radiology processes / access to radiology
- Role allocation / Job cards
- Medical / Nursing leadership planning

4. EXAMINER INSTRUCTIONS

The candidate is asked to take part in a discussion with a senior RN regarding preparation of the department external disaster plan prior to moving to a new department. They have a proposed floor plan to look at before entering the examination room, and the same plan is available inside.

The emphasis is on demonstrating the knowledge of the key elements to be considered in the plan and a reasonable practical understanding of how these factors might affect department set up and function and vice versa.

It does not address pre-hospital elements or standard / given factors such as *'I will confirm disaster, or I will prepare the department'*. Rather a deeper level of understanding about practical issues is required.

The key elements that should be addressed include:

- Usage of ED areas
- Equipment and communication
- Staffing
- Security
- Media
- Family

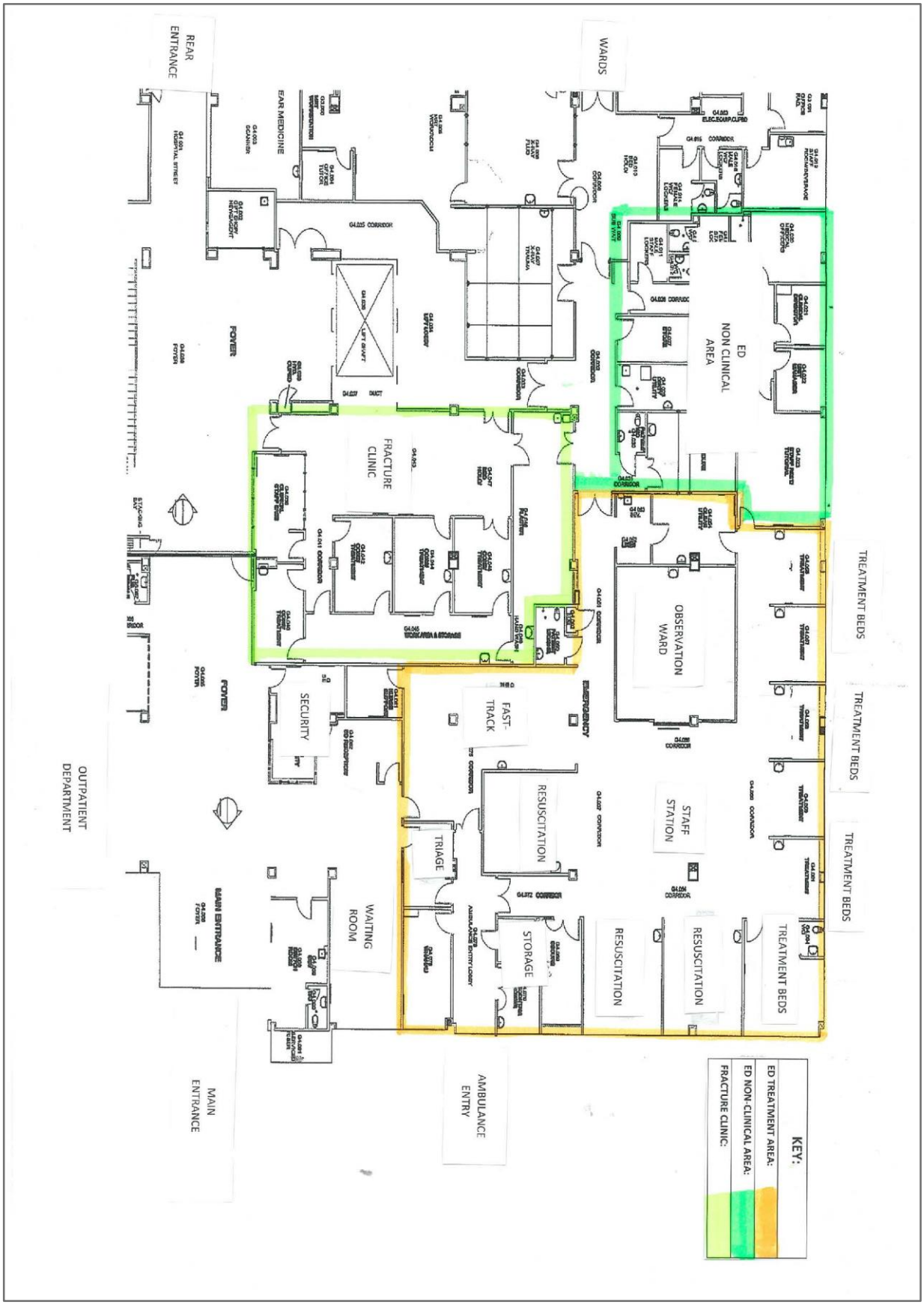
It is expected that the candidate will lead the discussion. The role player may direct to a key area that has been overlooked, but the candidate must provide the detail and solutions.

There is no Examiner participation.

This OSCE will assess the following domain:

- Medical Expertise

Departmental Floor Plan



Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 2

CANDIDATE barcode

EXAMINER 1 barcode

EXAMINER 2 barcode

COMPONENT ASSESSMENT

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Please rate ALL the following domains:							
Medical Expertise	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise	• Clearly identify the broad physical areas in their planning – Triage area/areas • Identifies separate resuscitation, critical, ambulant and expectant areas • Staffing of those areas (general principles, not detail, distribution of teams) • Security and access issues, staff assembly • Discusses equipment/possible solutions- storage near triage • Discussed communication in disaster setting- radios, not mobile phones/land-lines as these may be not working • Demonstrates an understanding of non-clinical issues - where to locate and manage relatives and media, gives reasoning as to why they select areas for certain roles. • Uses non-ED areas appropriately e.g. out-patients area, fracture clinic

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 2

INFORMATION

Station Summary: The candidate is to have an initial meeting with a senior ED nurse to develop a disaster plan for a new department.

EXAMINER NOTES (For examiner reference only)

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	○	○	○	○	○

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 (end of form)

STATION 3
ECG TEACHING STATION

1. STATION SUMMARY

ECG showing complete heart block. Further teaching regarding ECG features of other heart blocks. Patient has presented with fever and dyspnoea post AVR – likely diagnosis of aortic root abscess, other causes of bradycardia require consideration. Investigation of this patient/ bradycardia covered.

2. CANDIDATE INSTRUCTIONS

Doctor Jones is a PGY3 junior doctor. They wish to discuss a patient's ECG and their clinical presentation. The history is as follows but Dr Jones is unaware of the examination findings.

At your tertiary referral centre, it is 11 am on a Wednesday.

The patient, John, is a 40 year old man who is currently in Resus having come in following a syncopal episode without head injury. John had an aortic valve replacement 4 weeks ago for aortic stenosis. He has no other past medical history. John describes having had fevers and chills for the last 5 days which is associated with anorexia, lethargy and increasing dyspnoea. His only medication is aspirin.

The patient is currently stable in the resuscitation room under the care of a senior registrar and therefore you have time and/or several minutes to discuss this with Dr Jones.

Your tasks are to:

- Interpret the ECG
- Discuss the potential causes for the patient's presentation
- Explain what investigations would be required

You are **not** required to take a further history.

Management is **not** a focus of this OSCE.

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

3. ROLE-PLAYER INSTRUCTIONS

You will be playing the role of a junior (PGY3) doctor currently working in the ED. You have just seen John, a 40 year-old man who is currently in Resus having come in following a syncopal episode at home. John had an aortic valve replacement 4 weeks ago. John describes having had fevers and chills for the last 5 days which is associated with anorexia, lethargy and increasing SOB.

You have been in the resuscitation room with the senior registrar. You have heard the history and have just seen his initial ECG. The patient is stable and in good hands with the senior registrar, who is going about an examination and further assessment. You are seeking guidance about the ECG interpretation in this setting. You are also wondering what could cause this, as well as how to further investigate.

As a junior doctor you recognise that there is a bradycardia but are having trouble working out the exact rhythm and what to look for on the ECG in this presentation.

The Candidate will Walk into the Room:

'Hi I'm Dr Jones, Thanks for helping me with this case' … Sit down and show the ECG to the candidate such that a discussion can begin.

While the candidate starts to look at the ECG, reiterate the history as above:

> *'I've just seen John, a 40 year-old man who is currently in Resus. He has come in following a syncopal episode at home. John had an aortic valve replacement 4 weeks ago. He describes having had fevers and chills for the last 5 days which is associated with anorexia, lethargy and increasing SOB. I have been in the resuscitation room with Jack, the senior registrar. Jack is sorting it. The patient is stable and in good hands. I was wondering if you could help me interpret this ECG and have a quick chat about the case please'*

The candidate will likely firstly ascertain your baseline knowledge about the ECG. The following should be the response:

> *'Well, there is bradycardia with a rate about 50 but I can't quite work out the rhythm.'*

Your base line knowledge includes simple ECG interpretation and a rudimentary differential diagnosis (myocardial ischaemia and drugs). You recognise the left bundle branch pattern, but not the CHB. You recognise that there are p waves on the ECG.

You may be asked about an old ECG but at this point *'I don't have the chart'*.

You need to get the candidate to explore the relevant relative negatives and positives on the ECG. The candidate must describe and explain clearly to you the following points:

1. Complete heart block: p waves independent from QRS
2. Escape rhythm 40/min with LBBB morphology: Rate and morphology suggest coming from infranodal conducting tissue

   If necessary, ask *'So what is happening with the QRS?'* and *'Where is it coming from?'*

'What else should I be looking for on the ECG?' They may discuss looking for signs of ischaemia, hyperkalaemia etc.

You are an ALS provider and are familiar with the treatment of symptomatic bradyarrthymias and therefore do not require a discussion on this.

> *'I am happy with the management of symptomatic bradycardia'*

You are also focused on learning about how you differentiate heart blocks.

> *'How do I differentiate types of heart block?'*

The candidate needs to adequately explain the following:

- 2nd degree heart blocks (not all p waves followed by QRS)
  - Type I (Wenkebach) – progressive PR lengthening then block
  - Type II – constant PR then block
- 1st degree heart block – PR > 0.20 msec

Better candidates may discuss looking for conduction disease such as bi-fascicular blocks / tri-fascicular blocks. This is fine if they have time however is not 'required'.

If explanations by the candidate are not clear to you please ask for clarification and/or say *'I don't understand'*.

The interpretation and teaching with the ECG should take around 4 minutes, and you can move on at the 4 minute mark if the ECG interpretation seems adequate or exhausted. Poor candidates may struggle to relay information and take longer. Similarly, good candidates may have a lot of information to relay and start talking about Sgarbossa criteria. If time is running out to 5 minutes, do not use any more prompts or dialogue that would prolong the ECG discussion.

Then the discussion needs to move to possible causes and what investigations might be required.

'What causes do we need to consider in him? How should we investigate for them?'

The candidate may well say to you what do you think the causes could be. In response to this say something like

'ACS perhaps…. I'm not really sure though'

The candidate should outline a number of potential causes

- Post surgical: Endocarditis/ Aortic Root abscess / surgical complication
- Other: Ischaemia (unlikely), Drugs (BBlockers, Amiodarone, CaCB), Degenerative, Cardiac disease (myocarditis / infiltration), Electrolyte (HyperK+)

If they focus on the 'post surgical' aspects only, ask *'Are there other causes of heart block I should think of?'*

If they do not address the post surgical aspect ask *'Could it be related to his operation?'*

The candidate may ask you to consider why the patient could be febrile. Your response should be

'They most likely have an infection, maybe a pneumonia but I am not sure why they have a heart block'

Then proceed to prompting about investigations. If asked, you can suggest some basic investigations such as FBE/ UEG/LFT and TnI.

A good candidate should recognise the risk for endocarditis and as such recommend multiple blood cultures and Echo. If an echo is not mentioned prompt as follows:

'Are there any other tests that we should get?'

'Should we get the patient to the cath lab for an angiogram?'

If the candidate says an echocardiogram, you should explore the reasons for this if it not already clear:

'What are we looking for with an echocardiogram?'

If time permits also explore the urgency of the echocardiagram. If an aortic valve root abscess is possible this is quite urgent.

4. EXAMINER INSTRUCTIONS

You are to observe the candidate only. You may re-orientate the candidate to the tasks if they get off track.

Up to 5 minutes should be allowed for ECG interpretation and the rest of the time for case base discussion with the RMO about the possible causes and investigations.

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

ECG Interpretation

- CHB –p waves able to be traced out. No fixed relation to QRS –best seen at the end of the rhythm strip. P waves are hidden in the ST/T complexes.
- Rate: 42. Rate suggests nodal/infranodal escape
- LBBB – new/old/indeterminate. While possibly preexisting or escape, cannot rule out acute ACS if new.
- Left axis deviation (LAXD) – goes with LBBB
- Sgarbossa criteria – negative for STEMI i.e. no concordance of ST segments as related to QRS
- T waves prominent and could raise the possibility of hyperkalaemia
- Relevant negative re RCA ACS – no inferior ST elevation
- T wave inversion 1, AVL and V6 (as expected with LBBB pattern)

Causes

Very good candidates will try to relate to recent surgery, fever and bradycardia and consider one cause that will explain all manifestations

- Only real (best) explanation is classic presentation of aortic valve root abscess with endocarditis and conduction system disturbance
- Endocarditis with infected emboli in coronary artery far less likely
- Recognise this as potential surgical emergency which needs echo diagnosis
- Passing candidates should identify a concern for post-surgical endocarditis and a discussion with cardiology/ cardiac surgeon at minimum

Other candidates may consider multiple causes to explain presentation features

- Infection and hyperkalaemia/ARF
- Other Infection and ACS
- Heart block: Ischaemia (unlikely), Drugs (BBlockers, Amiodarone, CaCB), Degenerative, Cardiac disease (myocarditis/infiltration), Electrolyte (HyperK+)

Poorer candidates are likely to just go through a list-like approach for bradycardia/CHB and a list like approach for fever, rather than relate to this patient. The causes of these are many and well known to examiners.

Investigations

Good candidates should advise the junior doctor of the utility of an early vbg/abg to exclude hyperkalaemia and assess for poor end organ perfusion signs such as metabolic acidosis and raised lactate. The patient is SOB and an arterial blood gas will provide information on gas exchange.

CXR and multiple blood cultures as well as a “standard workup” is important and good candidates will relate the rationale of why a test should be ordered in this situation.

An angiogram in this setting should not be done before an ED transthoracic bedside echocardiogram. An Echo can define endocarditis potentially and can include/exclude an aortic valve root abscess. Although specifically not a task, good candidates may mention the need for collaborative cardiothoracic surgery in investigative approach.

Scholarship & Teaching

As this is a teaching OSCE with the Junior doctor, the candidate will be required to facilitate a case based discussion with the RMO. The candidate should firstly establish the RMO's baseline knowledge. This should include the discussion on the diagnosis of one (1) disease process causing the constellation of findings vs multiple disease processes. The candidate needs to be clear in his explanation and facilitate the discussion through the use of both open and closed ended questions. Clinical reasoning, diagnostic reasoning in relation to investigative reasoning is key to the discussion. Demonstration of the process to define different heart blocks should be logical and specific to the case. Listening and checking understanding may occur throughout. There should be patience and tolerance for the learner. Teaching rules for the diagnosis of different types of heart block and key learning messages for the future should be delivered. At the end of the OSCE, the candidate could recommend that the RMO reflect on the case and follow up with further reading (post experiential reflection).

Aortic Root Abscess and Acute (prosthetic valve endocarditis) PVE

Acute PVE defined as occurring within first 60 days post valve replacement and is a more aggressive disease then subacute infective endocarditis (IE). Not very common and usually caused by skin organisms. High mortality. Clinical features similar to native valve endocarditis with most common symptoms being fever and chills.

Aortic Root Abscess

Complication of Infective Endocarditis. More frequently found in Acute IE, Prosthetic valves and in the aortic valve. High mortality and morbidity requires early diagnosis and invariably surgical repair. Presents with features of IE – Fevers and chills commonly. Increasing PR on ECG or development of heart block are worrying features as conduction system impinged on by abscess.

Medical Expertise

Areas assessed: ECG interpretation, heart blocks, relevant negatives and positives on ECG with heart block, Endocarditis and complications specifically valve ring abscess, emergent investigations in this setting.

Assessment criteria (see mark sheet for essential criteria)

- ECG interpretation
  - Recognise CHB
  - Recognise escape rhythm: rate suggest nodal/infranodal ?old LBBB (relate to old ECGs) with nodal escape or infranodal escape with block
  - Adequate explanation of features of 1st and 2nd degree Heart block
  - Other blocks
- Diagnosis/differential
  - consider endocarditis, relate to cause of CHB, aortic root abscess
  - Cardiac disease: Ischaemia, degenerative, myocarditis, cardiomyopathy (bold + 1 other)
  - Drugs (Amiodarone. BBlocker, CaCB, Dig), Electrolytes (hyperkalaemia ?AKI) (2 drugs to pass)
- Investigations
  - VBG/ABG with correct rationale (K+, acidosis)
  - Endocarditis: Echocardiogram + multiple blood cultures (min 3 sets)
  - CXR
- FBE/ UEG/LFT/ INR if warfarin, other
- No significant errors or omissions with regard to patient ECG interpretation, differential diagnosis, investigations

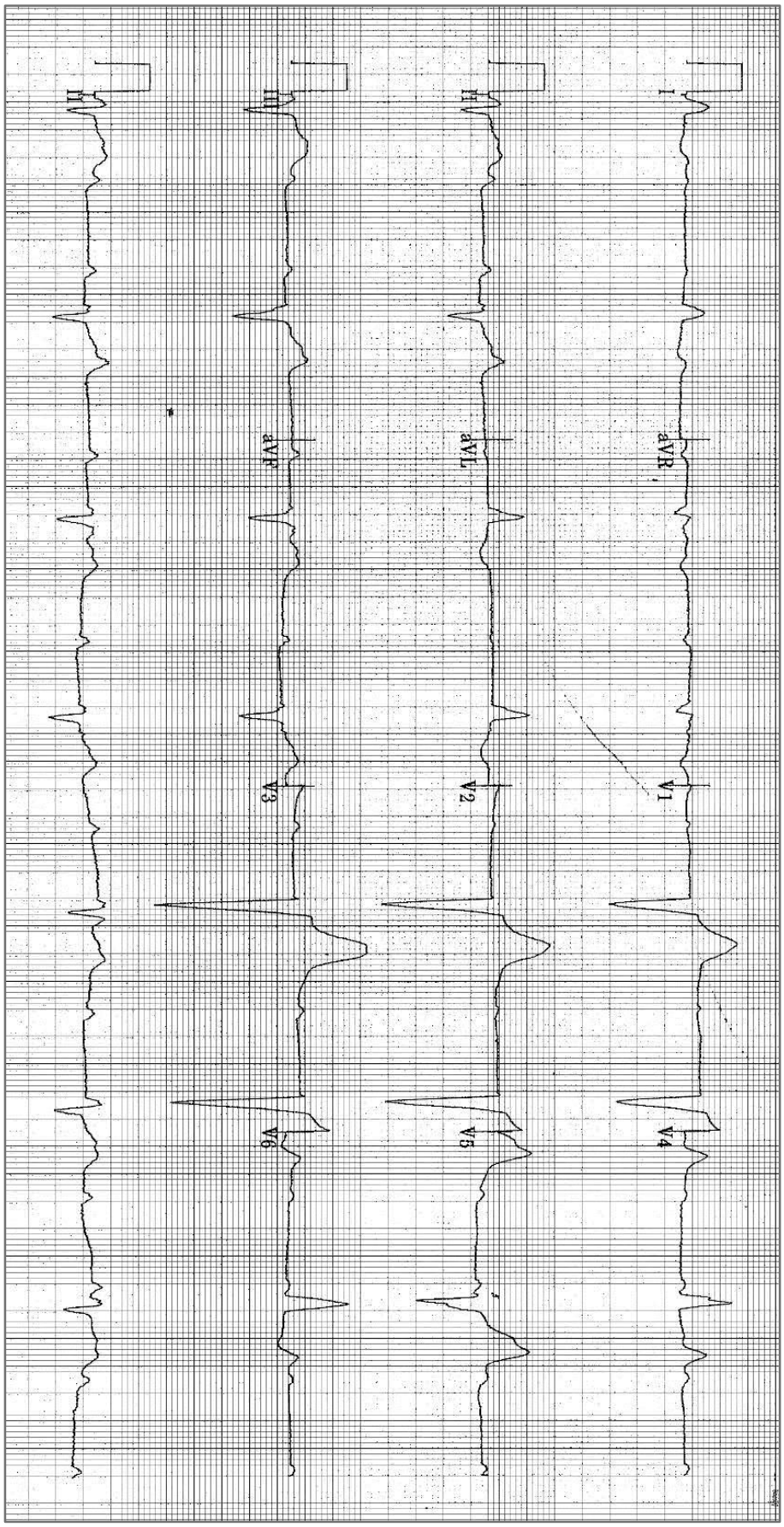
Scholarship & Teaching

Establishing knowledge, check learning needs, responding to needs, clarity of communication, specific and relevant, depth and breadth, reasoning and logic, listening, manner with learner, checking understanding, correcting misconceptions, reinforcing correct knowledge, suggesting post experiential reflection and learning.

Suggested minimal standard:

- Majority of these elements should be included in the teaching style and examiners should feel comfortable that an adequate teaching experience has occurred in the time frame

ECG



Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 3

CANDIDATE barcode

EXAMINER 1 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.

Please rate ALL the following domains:

	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
Medical Expertise	○	○	○	○	○	○	○
Scholarship and Teaching	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise

- ECG interpretation
  - **CHB**
  - **Escape rhythm + LBBB pattern**: Nodal + old LBBB or infranodal escape with block
- Adequate explanation of features of
  - **1st degree block**
  - **2nd degree Heart block: Type I and Type II**
  - Other blocks: LAFB, LPFB, Bifascicular, Trifascicular
- Diagnosis/ differential
  - consider **endocarditis**, relate to cause of CHB, aortic root abscess
  - Cardiac disease: **Ischaemia**, degenerative, myocarditis, cardiomyopathy (bold + 1 other)
  - Drugs (Amiodarone. BBlocker, CaCB, Dig), Electrolytes (**hyperkalemia** ?AKI) (2 drugs to pass)
- Investigations
  - **VBG/ABG** with correct rationale (K+, acidosis)
  - **Endocarditis: Echocardiogram + multiple blood cultures** (min 3 sets)
  - CXR
  - FBE/ UEG/LFT/ other

Scholarship and Teaching

- establish knowledge & respond to learning needs
- **clarity of communication - specific and relevant, appropriate depth**
- interaction with learner – rapport, listening, response to questions
- **checks understanding, corrects misconceptions, reinforces correct knowledge**
- suggesting post experiential reflection and learning

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 3

INFORMATION

Station Summary: ECG teaching station. ECG showing complete heart block. Further teaching regarding ECG features of other heart blocks. Patient has presented with fever and dyspnoea post AVR – likely diagnosis of aortic root abscess, other causes of bradycardia require consideration. Investigation of this patient/ bradycardia covered.

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.

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 (end of form)

STATION 4
OPEN DISCLOSURE

1. STATION SUMMARY

This OSCE assesses the Candidate's ability to 'openly disclose' and manage an avoidable error in the ED. A 17 year old girl with documented anaphylaxis to amoxycillin was administered flucloxacillin for cellulitis in the short-stay ward overnight. A severe anaphylactic reaction occurred and she was emergently intubated, her condition has now stabilised. The Candidate has been called in from home and must 'break this news' and have appropriate discussions with the patient's parent. The parent is unaware of what has happened and has not yet seen their daughter.

2. CANDIDATE INSTRUCTIONS

You are the consultant on-call overnight. You have been called back to the ED at 0300 hours after a patient was intubated following a severe anaphylactic reaction.

The patient, Joanna Temple, is a 17 year-old girl with leg cellulitis. She was admitted to the Short Stay Unit at midnight and prescribed IV flucloxacillin. Review of the ED medical record reveals that she had previously had "anaphylaxis to amoxycillin". The medication chart has "Amoxil allergy" noted although no details of the reaction are recorded.

The patient had rapid onset of bronchospasm, moderate hypotension and wide spread rash. She received 2 doses of IM adrenaline without improvement. Due to the development of throat tightness and some voice alteration she was intubated by the ED Registrar. Intubation was uneventful and there were no periods of significant hypoxia.

The patient is now stable: sedated and paralysed with signs of anaphylaxis resolving on an adrenaline infusion. ICU admission has been arranged. You were not contacted during the resuscitation, but your feeling is that while the decision to intubate was possibly a little premature, the management was otherwise appropriate.

Her mother has been called back into the ED. She is waiting in the relative's room. She is unaware of what has happened and have not yet seen their daughter.

Your task is to:

- Explain the events to the Mother and answer any questions she may have.

This OSCE will assess the following domains:

- Communication
- Professionalism
- Leadership / Management

3. ROLE-PLAYER INSTRUCTIONS

You brought your 17 year-old daughter to ED last night 10.00 pm due to fever and a red patch on her leg. Your daughter is otherwise well. You left at 0100 after she had been seen - with a plan to admit to Short Stay Ward for IV antibiotics overnight. You received a phone call 30 minutes ago asking you to come back to the ED urgently. The caller gave no details but you have a feeling that "something bad has happened". You have not seen your daughter yet, but are keen to.

Your daughter is fit and healthy. She had anaphylaxis age 10 after being given Amoxil (generic name: amoxicillin). She had a rash and facial swelling, couldn't breathe, and was taken by ambulance to Emergency. It was a terrifying experience. She received adrenaline injections and was stabilised. She has a Medic-Alert bracelet documenting a penicillin allergy.

The following key questions should be covered during the OSCE. The aim is for you to move through each aspect. There are prompting questions outlined in the HEAL document. It is possible that the discussion will occur in a different order.

1. How is she? Will she be ok? (Emotional Reaction)

   Initial reaction is concern for your daughter - you are "horrified" and immediately want to know how she is, ask to see her, *'will she be ok?'*

   - The candidate should explain that daughter is stable, that she will recover completely. They should say that they will take you to see her soon.

2. What has happened? The candidate should say what has happened

   - They should 'openly disclose' that there has been an error and apologise for what has happened. (This may not occur at the opening but should occur early in the discussion e.g. when you ask how this could happen)
   - *'Why has she ended up on a ventilator?' 'Don't you just treat this with an EpiPen?'*

3. How could this happen? (Anger)

   - *'You knew that she had a penicillin allergy!' 'How could you give her the wrong antibiotic?'*
   - *'I told the clerks and Nurse at the front!' 'She even has a Medic-alert bracelet!'*

If candidate "accepts responsibility" appropriately and apologises you move towards trying to understand how this happened. If they do not do this and are "defensive" you remain upset / angry until they "de-escalate" the situation.

4. How could this happen? (Understanding)

   - Candidate should explain a number of factors that may have combined to lead to this error.
   - They should not do this in a way which seems like they are 'excusing' or 'defending any error' – if so you react angrily e.g. *'Are you trying to say that this is ok?'*

5. What will be done to prevent this from happening again? (Prevention)

   - Candidate should outline a number of strategies including full review of what happened, systems and individual aspects
   - They should convince you that they are taking this very seriously otherwise you will react angrily.

6. What will happen to her from here? (Ongoing care of daughter)

   - Candidate should explain transfer to ICU, remaining sedated / on a ventilator until reaction has fully settled, likely to be woken up and taken off the ventilator later that day, full recovery.

Ask the following questions if time allows:

7. Are we going to meet again? (Follow-up)
    - Candidate should plan to meet with you and your daughter again in the near future.
8. Can I see her now? (Seeing your daughter)
    - Candidate should agree and briefly explain "what you will see" – that she is in a resuscitation room intubated / on a ventilator / monitored and that she is sedated ad paralysed and so will not be able to respond although she may be able to hear what is said to her/feel your touch.

4. EXAMINER INSTRUCTIONS

This OSCE assesses the candidate's ability to effectively communicate around an avoidable adverse event which has occurred in the ED. A 17 year-old girl has been intubated after having an anaphylactic reaction to IV flucloxacillin given for cellulitis. The patient had anaphylaxis to amoxycillin as a younger child which is recorded in the medical record. The medication chart for this presentation documents an allergy to 'Amoxil' however no details of the reaction were recorded. The parent will reveal that the patient also has a 'Medic-alert bracelet'. The patient has now stabilized and is expected to have a good outcome.

The parent has been called into the department and is waiting in the relative's room. The candidate's task is to conduct the initial discussion with the parent who is NOT aware of what has happened and has not yet seen their daughter.

The Examiners role is observation only.

This OSCE will assess the following domains:

- Communication
- Professionalism
- Leadership / Management

Open Disclosure

The elements of open disclosure are:

- an apology or expression of regret (including the word 'sorry')
- a factual explanation of what happened
- an opportunity for the patient/carer to relate their experience
- an explanation of the steps being taken to manage the event and prevent recurrence.

Open disclosure is a discussion and an exchange of information that may take place over several meetings.

For this OSCE, the candidate is expected to have a brief initial meeting with the mother – they may close with a plan to organise a formal open disclosure meeting with appropriate staff at a later stage, by which time extubation and full recovery should have occurred.

Candidates should be familiar with the "open disclosure framework" as above.

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 4

CANDIDATE barcode

EXAMINER 1 barcode

EXAMINER 2 barcode

COMPONENT ASSESSMENT

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Please rate ALL the following domains:

	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
Professionalism	○	○	○	○	○	○	○
Communication	○	○	○	○	○	○	○
Leadership and Management	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Professionalism	• **Openly discloses 'error' and apologises** • **Accepts responsibility: Is not defensive** • Focuses on parent's and patient's needs, reassures appropriately • **Does not overtly criticise other clinician's management of patient**
Communication	• **Empathetic – develops and maintains rapport** • **Parent centered communication – provides opportunity to ask questions** • Answers parent's questions directly with appropriate language • Appropriate body language (open, engaged)
Leadership/Management	• **Displays understanding of likely multiple factors (system & individual) contributing to error** • **Communicates plan to investigate error and take steps to prevent future occurrences** • Future follow-up: Expresses intent to meet with parent & patient in near future

Page 1 of 2 (please turn over)

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 4

INFORMATION

Station Summary: This OSCE assesses the Candidate's ability to 'openly disclose' and manage an avoidable error in the ED. A 17 year old girl with documented anaphylaxis to amoxycillin was administered flucloxacillin for cellulitis in the short-stay ward overnight. A severe anaphylactic reaction occurred and she was emergently intubated, her condition has now stabilised. The Candidate has been called in from home and must 'break this news' and have appropriate discussions with the patient's parent. The parent is unaware of what has happened and has not yet seen their daughter.

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	○	○	○	○	○

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 (end of form)

STATION 5
PATIENT MENTAL HEALTH & RISK ASSESSMENT

1. STATION SUMMARY

Rachael is a 30 year-old woman with multiple recent presentations to ED. She is cleared of organic illness and is now being reviewed for mood issues. History reveals that she meets criteria for depression with several recent stressors. The candidate is expected to conduct a focused mental state exam, diagnose depression, and include a risk assessment. They must then make a succinct referral to the Psychiatry registrar including their recommendations for timing of review.

2. CANDIDATE INSTRUCTIONS

It is 0900h in the Emergency Department Observation (Short Stay) Unit.

Rachael is a 30 year-old mother of two young children. This is her third presentation to the ED within the last 10 days. She has experienced headaches over the last four weeks. She has been extensively worked up and it has been determined that **there is no organic cause for her headaches**.

Rachael's headache settled but she was noted to be very teary following an argument with her estranged husband. The overnight staff had concerns about her mental health. Therefore, she was admitted overnight for rest and for mental health review this morning.

The Psychiatry Registrar has left a message saying that they have several unwell patients to assess in the community and the hospital, and asks that you review Rachael to help them with prioritisation.

The Psychiatry Registrar will be phoning you in 5 minutes, and thus you have only **5 minutes** to assess Rachael.

Your tasks are to:

- Conduct a **focused** history and mental state examination
- Present your findings and recommendations to the Psychiatry Registrar who will telephone you after 5 minutes.

You are **not** required to further assess or manage her headaches.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

3. ROLE-PLAYER INSTRUCTIONS

You initially presented with 4 weeks of ongoing headaches (bitemporal i.e. both temples). You have been extensively worked up over 3 visits to ED in the last 10 days including imaging of your head and blood tests. All investigations are normal. It transpires that you have features suggesting depression. (The headaches are likely a manifestation of your depression). You were admitted overnight for rest and consideration of mental health review this morning.

You have been teary and upset overnight, particularly after a phone argument with your ex-husband, and have slept fitfully (as usual). It's getting a bit too much to cope with (see detail below). You're not sure how much more of this you can take but you are determined to hold it together for the sake of your 4 year-old twin daughters.

You are cooperative in answering questions. You give accurate responses.

Help the candidate to maintain a good pace of extracting information from you. If needed, say, *'I really do need to get going. Can we move this along a little faster?'*

You have twin daughters aged 4 (Ruby and Ava). After their birth, you were diagnosed by your GP with mild post-natal depression. You remember being very tired and often feeling anxious and having a low mood – somewhat like you feel now but not as bad.

You took citalopram for about 4 months. You did not see a counsellor, psychologist or psychiatrist. It slowly resolved and you were getting back to being your normal self. You stopped the medication as your husband suggested that you should be able to deal with it yourself "without a crutch".

You had been managing reasonably well until your marriage difficulties escalated, and your husband left the family home six months ago.

4. EXAMINER INSTRUCTIONS

You are to observe the candidate conduct an assessment of the patient. The candidate will then present their findings to you as the Psychiatry Registrar to help you prioritise your workload.

History will reveal that Rachael has features consistent with depression. These have been worsening over the last month. Her stressors include: recent marriage breakdown, return to work, financial strain, impending divorce and custody proceedings.

She has no active suicidality, has good insight, and is able to be treated as a voluntary patient.

At approximately the 5-minute mark, Examiner One hands the candidate a phone and says 'The Psychiatry Registrar is on the phone asking for your assessment findings and recommendations'. At this point "Rachael" will leave the room and go into the examiner corridor. Expect a brief synopsis of the assessment findings as well as recommendations for management.

Examiner Two holds the other phone and uses the following prompts as required

- If the candidates do not recommend a management approach at approximately the 6-minute mark ask them *'So, how soon do you think she needs to be seen?'*
- If they suggest admission or express no clear plan ask *'Do I need to come and see her now, or later today, or could she be seen as an outpatient?'* They should outline that it is reasonable to see her later today either in ED, or in the community providing a management/follow-up plan is established and supports arranged.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

Medical Expertise

- **Diagnose depression:** depressed mood/dysthymia, sleep disturbance (insomnia/hypersomnia), change of appetite and weight, inability to hold attention or concentrate, anhedonia, lack of energy/fatigue, excessive feelings of guilt, loss of confidence/self-esteem (5/8 to pass)
- Conduct an adequate Mental State Examination
- **Conduct an adequate risk assessment: especially any intention of self-harm or suicide**, plan, future-orientation, protective factors
- **Recognise need for referral for assessment and follow up with appropriate timing and plan**: MH review/ establishment of plan/DC with management plan/close follow-up/supports; recommendation regarding inpatient vs outpatient management and the rationale for this
- Recognise she can be treated as a voluntary patient at this stage
- Explore care and safety of children (age, who is providing care currently, is she coping, family violence)
- Recognise social factors and stressors – offer/arrange social work or other support
- Patient advocacy: encourage patient to stay for further assessment; recommend early review by Mental Health service prior to discharge.

Communication

- **Empathetic, non-judgmental approach**
- **Active listening** (allows patient to tell her story)
- Clear questions
- Makes a succinct referral to Psychiatry Registrar, including the need for their urgent review prior to potential discharge
- If says could be seen in the community then needs to have ensured safety and supports

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 5

CANDIDATE barcode

EXAMINER 1 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

Medical Expertise	• **Diagnose depression:** depressed mood/dysthymia, sleep disturbance (insomnia/ hypersomnia), change of appetite and weight, inability to hold attention or concentrate, anhedonia. Lack of energy/fatigue, excessive feelings of guilt, loss of confidence/self-esteem (5/8 to pass). • Further Mental State Examination in particular determines no delusions or hallucinations. Insight, judgement. • Elicits past psychiatric Hx: PND, citalopram. • **Conduct adequate risk assessment**: **Especially if any intention of self-harm or suicide**, plan, future-orientation, protective factors. Asks about any previous suicide attempts. Asks about alcohol/drug use. • **Recognise need for referral for assessment and follow up with appropriate timing & plan**: MH review/ establishment of plan/ DC with management plan/close follow-up/ supports; recommendation regarding inpatient vs outpatient management and the rationale for this. Recognise that a thorough mental health assessment takes more than 5 minutes. • Recognise she can be treated as a voluntary patient at this stage. • Explore care and safety of children and herself (re: husband) (age, who is providing care currently, is she coping? family violence). • Recognise social factors and stressors – offer/arrange social work or other support. • Patient advocacy: encourage patient to stay for further assessment; recommend early review by Mental Health service prior to discharge. • If says could be seen in community then needs to have ensured safety & supports.
Communication	• **Empathetic, non-judgmental approach.** • **Active listening** (allows patient to tell her story). • Clear questions. • Succinct summary to Psychiatry Registrar most likely including the need for their urgent review prior to potential discharge. • Higher scoring candidates refer to appearance, speech, mood, affect, thought form, insight (with patient out of the room) when communicating with Psychiatry Reg. • **Candidate makes reasonable recommendations about the timing of full assessment.**

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 5

INFORMATION

Station Summary: Rachael is a 30yo woman with multiple recent presentations to ED. She is cleared of organic illness and is now being reviewed for mood issues. History reveals that she meets criteria for depression with several recent stressors. The candidate is expected to conduct a focused mental state exam, diagnose depression, and include a risk assessment. They must then make a succinct referral to the Psychiatry registrar including their recommendations for timing of review.

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

Page 2 of 2 **(end of form)**

STATION 6
TEACHING SESSION

1. STATION SUMMARY

Consultant teaching intern about hyponatraemia.

2. CANDIDATE INSTRUCTIONS

You are the consultant on duty in a regional emergency department. It has been a steady morning and things are progressing well.

A local GP has referred 73 year-old, Mrs Costatini, to your emergency department with a sodium of 117 mmol/L. The referral letter and the blood results are available for your review.

The intern is about to see her, and comes to you beforehand requesting information about hyponatraemia and how to assess and investigate a patient with a low sodium.

Your tasks are to:

- Teach the intern about the topic
- Answer any questions the intern may have

You will not be asked to assess the patient yourself, nor initiate or discuss management.

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

3. ROLE-PLAYER INSTRUCTIONS

You are an intern halfway through your ten-week emergency department term at a regional hospital. You've been enjoying it, and you've been finding the work challenging but satisfying. The consultants are supportive and have a regular teaching program that you enthusiastically attend. Of the terms you've done so far (general medicine and orthopaedics), this is your favourite; you are even pondering if a career in emergency medicine might be worth pursuing.

You are in your early 20s and have a range of hobbies outside of medicine. However, whilst you are bright and keen, in this scenario you display little initiative.

You are about to see Mrs Costatini, a 73 year-old female who has been referred to the ED by her GP with a sodium of 117mmol/L. Blood tests have been sent and the results are with you. The patient had normal initial observations and was talking to the nursing staff and was being helped to undress when you grabbed the letter and results. The letter also suggests that she has a heavy smoking history. She is on no medications.

You have never seen anyone with significant hyponatraemia before and don't really know what to do or where to start. You decide to ask the Consultant about how to approach the assessment of the patient – history and examination is the focus.

0 – Approximately 6 Minutes:

As the Candidate comes into the room, the opening remark should be:

> *'Hi Doctor, Mrs Costatini's looking well right now, I'm just about to go see her. I'm looking at her biochemistry and it's quite abnormal. Look, I've never really understood low sodium …could you talk me through the bloods and give me some guidance on hyponatraemia and what I should be doing to assess and investigate it?*' You should hand the candidate the results and the Dr letter as you say this.

The candidate should engage you in a friendly, conversational manner and you should respond to teaching points appropriately but in non-committal ways…you really don't know much about this topic at all.

The candidate may check for your level of understanding of the topic before starting any teaching. If asked *'Can you tell me what you know about hyponatraemia?*' or similar, your response should be along the lines of *'I don't know much about it at all…'*

General Aim

The candidate should effectively categorise and explain the different causes of hyponatraemia, along with the clinical features and investigations which may help differentiate between them (refer to flow chart):

1. Extracellular fluid increased
    - Urinary Na <20mmol/L: liver failure, cirrhosis, CCF, nephrotic syndrome – and proceeds to describe the clinical features that support each diagnosis
    - Urinary Na > 20mmol/L: renal failure, cerebral salt wasting, drugs
2. Normal extracellular fluid
    - Water intoxication, intake related, SIADH (drugs, CNS, malignancy – small cell lung carcinoma) – and proceeds to describe the clinical features that support each diagnosis
3. Extracellular fluid decreased
    - Urinary Na <20mmol/L: Pre-renal: Na loss in excess of water – diarrhoea, sweat, vomiting, burns, bowel obstruction, heat exposure – and proceeds to describe the clinical features that support each diagnosis
    - Urinary Na > 20mmol/L: salt and water lost through kidneys + diuresis (renal failure, osmotic diuresis, thiazides) – and proceeds to describe the clinical features that support each diagnosis
4. Factitious
    - Hyperglycaemia, hyperlipidaemia, hyperproteinaemia – and proceeds to describe the clinical features and investigations that support each diagnosis

During the scenario appropriate general responses to correct teaching points (if the candidate checks for understanding) could be:

- *'I see'*
- *'Yes, I understand'*
- *'That makes sense'*

A clear explanation of the following key points of assessment is essential if the candidate is to pass the station – therefore, the following prompts should be utilised if they are not adequately explained. Note: The aim is to minimise interruptions to the candidate's flow or 'order' - thus you should learn the below in 'chunks' so you know what is important in each area and can ask for clarification at the end of any section.

Interpretation of blood results: Candidate may make the following comments

- Significant hyponatraemia
- Normal Glucose (hyperglycaemia can cause hypoNa+)
- Normal renal function: Nephrotic syndrome unlikely
- Normal HCO3. K+ and glucose making adrenocortical insufficiency less likely

The candidates will have a range of approaches. Some may cover history aspects first in terms of conditions that predispose to hyponatraemia. If they are spending too long on this and not getting onto volume status, then say *'The letter says she doesn't have much past history….'*

Presence of symptoms

The role-player should prompt the candidate to should prompt the candidate to evaluate for the presence of symptoms of hyponatraemia (and their time course) such as nausea, anorexia, lethargy, altered mentation, seizures. Absent symptoms suggest a spurious cause, mild symptoms suggest a slow onset making some causes more likely than others.

Assessing volume/'fluid status': Hypovolaemic, Euvolaemic, hypervolaemic can be of help, however the patient is unlikely to be significantly hypovolaemic or hypervolaemic given the information currently available

- Hypovolaemic
  - Fluid losses: GIT, sweating, 3rd space losses, burns
  - Renal losses: Diuretics (osmotic), renal disease, Addison's disease (adrenocortical deficiency), ketones

  If necessary, ask *'What do I think of if they seem hypovolaemic?'*
- Hypervolaemic
  - CCF, Cirrhosis/liver failure, Nephrotic syndrome

  If necessary, ask *'What causes would oedema or hypervolaemia suggest?'*
- Euvolaemia
  - Commonest type is hypotonic (exclude hypertonic hyperNa+ due to high glucose) – although rarely this severe
  - Causes include (the bold ones are essential)
    - **Drugs**: Thiazides, **SSRI's**, psychoactive drugs (TCA's, phenothiazines, ecstasy)

      If they don't discuss drug causes at some stage say *'Are there any medications that could cause this?'*
    - **SIADH**:
      - **Lung** (pneumonia, cancer, COPD, PPV etc.),
      - **Brain** (infection, trauma, tumour, stroke, SDH) – neurological features are usually obvious
      - Cancer – ectopic ADH (lung, pancreas, other)

      If necessary, ask *'What sort of things cause SIADH?'*

- **Endocrine: Hypothyroidism, Addison's** (adrenocorticoid defic)

  (There is no prompt here because they get a reminder when you ask about what blood tests may be needed)
- Excess water intake: Psychogenic polydipsia
- Iatrogenic: Hypotonic IV fluid, post op fluid (ADH release), bladder irrigation

If they have missed something important paraphrase what they have mentioned already and ask if there are other causes to think of.

At the end of this section ask *'How do you tell if SIADH is the diagnosis?*'

- They should outline the diagnostic criteria for SIADH: Hypotonic hypoNa+/ Euvolaemia/Normal thyroid and adrenal function/no hepatic, renal, or cardiac failure/Urine inappropriately concentrated (> 100-200 mOsm)/Urine sodium inappropriately high (> 20 mmol/L)/not on diuretics.

  They may focus on the urinary results. Don't spend too long here, there is a 2nd chance for the other information to come out when they discuss necessary investigations.

Investigations:

Note: This should occur by the **5 minute mark**.

If they do not open the topic then say *'OK, I feel happier about the history and examination. Can you just take me through the tests I might need to do?'*

Candidates should be able to pretty efficiently detail the tests and rationale as much should have been covered already.

They should describe the need to do

- Urine chemistry
  - Urine sodium and urine osmolarity

  If they have not explained the rationale for this test, ask *'How do the urine results help?'*
- Blood tests
  - UEG/LFT: Recheck Na+, renal function/albumin, LFT's (?cirrhosis)
  - FBE: Infection, malignancy etc.
  - TFT (exclude hypothyroidism)
  - Cortisol level (exclude Addison's)

  If they have not mentioned Hypothyroidism or Addison's before then ask *'Why are we testing that?'*

  Ask *'Are there other blood tests I might need to do?'* if any are missed.
- Radiology
  - CXR: Cancer, infection, CCF, other pathology
    - CT chest pay be indicated depending on CXR etc.
  - CT head indicated if no other cause found

  Ask *'Is there any other imaging that might be needed?'* if they don't mention CT head.

At Approximately 6 Minutes:

Ask the candidate: *'Sorry, I have lost track of what you have been telling me – can you summarise what you have said so far?'*

If the candidate has completed the above and there is spare time, then you should ask *'What do you think the most likely causes might be in this woman?'*

- Given that the patient is probably euvolaemic, is 73, with a significant smoking history, no other medical history and on no medications a small cell lung carcinoma causing SIADH is relatively likely. If this is normal, then a CT chest may be required.

There are a number of ways the OSCE could go:

1. The candidate may know little about hyponatraemia and its causes or may make errors
    - The role of prompts is to give the candidate an opportunity to best display their knowledge
        - The prompt should not 'hint' at the answer e.g. Do not say *'Should a CXR be ordered?'* but ask *'What imaging is needed?'*
    - You may need to ask for clarification if it is not clear what the candidate has said, or the information is incomplete
        - You may need to do this for answers which appeared to be both correct or incorrect
        - The aim is to have them make clear what they said or meant – correct or incorrect (note: resisting the desire to give a hint can be a challenge)
        - If they make a clearly incorrect statement then 'repeat' or paraphrase it back to them – they will confirm or correct their mistake, you must then move on
2. The candidate goes into excessive detail beyond that indicated in a short clinical teaching session
    - In this instance you will need to deliver prompts to "pull the candidate back" so that the OSCE can be completed in the timeframe
    - Such prompts could include:
        - *'Sorry, I'm not following…could you keep it more simple please?'*
        - Some candidates may have great knowledge with much to teach and are doing so effectively but not in the necessary time frame. They need to be 'moved through' the elements of the OSCE to get the mark they deserve
3. The candidate gets it right:
    - It should be a straightforward clinical teaching session that follows the principles of "Teaching on the Run". Examiners are left satisfied that a meaningful teaching episode has taken place.
    - The teaching episode should be structured, have clearly defined goals, the candidate should regularly check for understanding, and should summarise the learning episode at the end (or ask you, the intern, to repeat back the key learning items)
    - The content is correct, well defined (i.e. the candidate does not go into excessive detail) and delivered in an understandable manner to the intern.

4. EXAMINER INSTRUCTIONS

This OSCE assesses the candidate's

- Knowledge and understanding of the assessment of hyponatraemia in a clinical setting
- Ability to teach the intern an effective and practical approach to the above in a brief episode utilising "teaching on the run" principles or similar

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

A good candidate will enter the room, calmly engage with the intern, have a structured approach to the topic and how to teach, deliver the correct relevant content, regularly check for understanding, summarise and ask for any additional questions. They will demonstrate an understanding of the more likely causes in this patient.

A minimally competent candidate will enter the room, start the teaching episode without a well developed structure or plan, deliver content slightly out of context and in too much or too little detail, not check for understanding, require some prompting and not really leave anyone clear (including the intern) and fully confident about what was taught. They will demonstrate only some understanding of the more likely causes in this patient.

A failing candidate will enter the room, have no structure to the topic, little approach as to how to teach, will deliver jumbled and even incorrect information, will require significant prompting or disregard prompts from the examiner, and will fail to complete the tasks. They will demonstrate little understanding of the more likely causes in this patient.

As the 73 year-old patient has a smoking history of 50-pack years, a chest x-ray should be considered to specifically look for a lung malignancy. This is the most likely underlying diagnosis: a small cell lung carcinoma causing SIADH. This may come up spontaneously, or as a consequence of the examiner's question at approximately 6 minutes.

Referral Letter

To:

The Admitting Officer

Emergency Department

Dear Doctor

Thank you for seeing Mrs Maria Costatini, a 73 year-old woman patient of mine. She has a sodium of 117. Blood results attached.

She is usually well and is on no medication. She has smoked heavily in the past.

Regards

Dr Charles Geepi

[DICTATED BUT NOT SIGNED]

Biochemistry

TEST TYPE	VALUE	UNITS	REF. RANGE
Na	**117**	mmol/L	135-145
K	4.2	mmol/L	3.5-5.2
Cl	**91**	mmol/L	95-110
HCO3	22	mmol/L	22-32
Urea	5.1	mmol/L	2.7-7.8
Creatinine	63	µmol/L	45-90
eGFR	**92**	mL/min/1.73m2	>90
Anion Gap	17	mmol/L	8-18
Glucose	5.6	mmol/L	<7

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 6

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	○	○	○	○	○	○	○
Scholarship and Teaching	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise

- Identifies on the results (3/6 bold to pass)
  - **hyperglycaemia** is not the cause
  - features suggestive of **renal disease, adrenocortical deficiency and hypovolaemia / hypervolaemia** are absent
  - **calculates osmolarity**
- Identifies symptoms, severity, and rapidity of onset
- Explains the most common causes , and how to differentiate between them using history, clinical features and investigations: (2/3 bold to pass)
  - Over-hydrated (ECF volume increased)
    - Urinary Na <20mmol/L: liver failure, cirrhosis, CCF, nephrotic syndrome
    - Urinary Na > 20mmol/L: renal failure, cerebral salt wasting, drugs
  - Euvolaemic
    - **Drugs :** Thiazides, SSRI, TCA, Phenothiazines, Ecstasy, Carbamazepine
    - **SIADH: Lung** (pneumonia, cancer**,** COPD, other),Brain (tumour, infection, stroke etc), malignancy (small cell lung carcinoma, other) Criteria for SIADH if prompted, (key aspects)
    - **Water intoxication** (intake related), Iatrogenic (IV fluid, irrigation)
    - Endocrine: Hypothyroidism, hypoadrenalism
  - Dehydrated
    - Urinary Na <20mmol/L: Pre-renal: Na loss in excess of water – **GIT** (vomiting/diarrhea),sweat, burns, 3rd space losses
    - Urinary Na > 20mmol/L: Renal salt and water loss: diuresis (renal failure, osmotic diuresis, thiazides)
  - Hypertonic (hyperglycaemia) Pseudohypernatremia (hyperlipidaemia, hyperproteinaemia)
- Investigations (2 bold to pass)
  - **Measured blood osmolarity**
  - **Urine chemistry: Na+/ Omsolarity + correct interpretation**
  - Bloods: , LFT, TFT, Cortisol
  - Imaging: CXR**,** CT head, CT chest

Scholarship and Teaching

- Follows the principles of effective and brief bedside teaching: Set, dialogue and closure
- Determines how much the intern knows about the topic – ie, checks for level of knowledge and understanding beforehand
- Provides structure to what is taught
- Appropriately emphasises common/serious causes
- Well-paced, not overly content-heavy and easy to understand
- Regularly checks for understanding as episode progresses
- Answers any questions that the intern has about the topic
- Summarises at the end of the episode and invites questions / checks understanding/reinforces key aspects
- **4/8 of the above to pass**

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 6

INFORMATION

Station Summary: Consultant teaching intern about hyponatraemia.

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

Page 2 of 2 **(end of form)**

STATION 7
DIFFERENTIAL DIAGNOSIS AND INVESTIGATION PLAN

1. STATION SUMMARY

Mark (played by an actor) is a 26 year-old HIV positive man who has been non-compliant with treatment and follow-up since diagnosis.

He presents with a 5 day history of a headache suggestive of an opportunistic CNS infection.

After taking the history, Mark will ask the candidate what tests they plan to do.

2. CANDIDATE INSTRUCTIONS

You are about to see a 26 year-old man named Mark.

You have the following information from his triage sheet:

Presenting complaint: Headache for 5 days

Vitals: HR 80, BP 120/70

SaO2 RA 97%, RR 16

Temp 37.2^{o}C

GCS 15

Your tasks are to:

- Take a history from Mark
- Discuss your differential diagnosis and plan for investigation with him

You will not have the opportunity to examine him.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

3. ROLE-PLAYER INSTRUCTIONS

Summary

You are a 26 year-old man who is HIV positive. You have come to the ED today because you have had a headache and have been feeling unwell for 5 days.

The doctor who sees you will take a history. All the doctor knows when (s)he approaches you is that you have had a headache for 5 days, and your vital signs. (S)he does not know your HIV status. If (s)he asks you about other health problems, you are to tell her/him you are HIV positive and give more details as asked (see below).

After approximately 5 minutes you will ask her/him what they think the problem is and their plan for further investigation.

The candidate is not expected to perform a physical examination.

Part 1 - History

Details to Answer Candidate's Questions

Presenting complaint - Headache for 5 days, gradually getting worse.

Onset - gradual. If asked what you were doing when it started, you can't really remember, but it was some time over the weekend, so probably "not much". You were asked by a friend to go out partying on Sunday night but you didn't go because you felt "rubbish". You then came home from work early on Monday because you felt unwell.

Nature of headache - you can only really describe it as a bad headache. If asked, you DO NOT feel it's more on one side than the other, it's just "sort of all over". Your neck has felt a bit sore but you can move it ok. The headache is there constantly, throbbing at times. You think it's a bit better when you've had a sleep and you maybe feel better lying down but you still feel terrible even then, and the headache never goes away completely. You don't feel as though the headache is preventing you from sleeping but it is definitely preventing you from going about your normal activities during the day. You don't feel the headache is worse at any particular time of day.

Aura - there was no "aura" (if you are asked this without any clarification about what "aura" means, ask *'what's that?'*) i.e. there were no changes in your vision (blind spots, flashing lights, zig zags, blurriness) or change in sense of smell or taste prior to the headache starting. You feel your vision has been normal (not blurry, no blind spots) with the headache but you do feel uncomfortable in bright light.

Precipitating and relieving factors - you feel worse trying to get up to do anything, even getting up to go to the bathroom or get a drink. Loud noise and bright lights are particularly uncomfortable. You feel a bit better after you've had a sleep and have been taking paracetamol (1g (2tabs) every 6 hours) and aspirin (900mg (3 tabs) every 8 hours) which initially helped a bit but now seem to make no difference.

You haven't seen your GP with this illness (if asked why not, just shrug and say "dunno really"). You haven't taken any other medications apart from the aspirin and paracetamol (specifically, if asked, no antibiotics).

You're not really a "headachey person" and certainly have never had anything like this before.

Trauma - you haven't had any bumps to the head, falls, fights etc. recently.

Other symptoms - you've been feeling hot and cold "like you've got the flu" at home. You've taken your temperature at home and it has been high, the highest was 38.8 degrees yesterday afternoon. You haven't felt like eating and have felt nauseated. You think you have lost a couple of kilograms in the last week because of this. You vomited once this morning but that's the only time. You haven't noticed any weakness, clumsiness or visual changes. You haven't felt confused. You don't have painful sinuses, an earache or a sore throat or runny nose. No diarrhoea, abdominal pain, pain when passing urine, shortness of breath, or cough. No rash or skin infections.

HIV history - you were diagnosed 2 years ago when a male partner asked you to have a test. You "freaked out" when it came back positive and haven't sought any follow up since then. An HIV positive acquaintance told you if you saw any more doctors they'd just try and put you on heaps of medications which were all experimental and had awful side effects and were just a way to make the pharmaceutical companies rich. You don't know what's happened to that friend. You went to the GP a couple of months later and had another positive test but you've had no tests of any kind since and have been taking no medications. You have not ever told your close friends and family about your diagnosis of HIV.

- Better candidates may explain to you that HIV therapies are now very effective at controlling HIV and highlight the importance of you seeing a HIV expert. You will seem a little surprised by this but receptive to the idea.

You aren't sure how you contracted HIV - you've had a number (unsure how many, maybe 50?) partners both male and female. You inject drugs "speed", every so often "but only for fun", you're not "a junkie".

You've had no hospitalisations since being diagnosed; in fact you haven't even had a particularly nasty cold. If asked what your viral load, CD4 or white cell count is answer with *'What's that? No, as I said, I haven't had any more tests since my second positive test'*.

Your family and close friends are NOT aware of your HIV status and you don't want to discuss it with them or go into the reasons why not. If asked why not, answer with *'because it's my business, not theirs'.*

Past med hx - mild asthma as a child which you "grew out of". No history of migraines. No operations. No medications, no allergies that you know of.

Drug and alcohol - injecting drugs as above plus "party pills" most weekends. You smoke about a packet of cigarettes per day but have felt too unwell this week to smoke more than about five cigarettes per day. Your last drug use was a couple of weeks ago, you took pills. You haven't injected for about a month.

FHx - you don't think there's anything significant. You're an only child, your father died of cancer when you were a teenager and your mother is alive and well although you aren't close. No family history of headaches or migraines as far as you know.

Social - you work in a coffee shop during the day and do a bit of freelance writing work from home in the evenings - you went to uni but haven't really found a job "worth showing up for" since finishing your degree in Arts. You have a flatmate who you get on well with but you're rarely there at the same time and aren't what you'd call friends. Your mother lives about an hour away, you haven't seen or spoken to her for "a while". You aren't in a relationship and have no regular partner.

Travel - no recent history of overseas travel. You were last overseas 5 years ago, in Bali.

Part 2 - Assessment and Investigation Plan

The purpose is to give the candidate the opportunity to display their knowledge. The aim is to help them do this in 2 minutes by asking prompting questions as required. You may need to move them on if they are providing too much detail/taking too long.

After approximately 5 minutes if the candidate has not already started to explain what they think the cause of your headache is, or how to best to investigate it, you say

1. *'So what do you think is going on?'*

   The candidate should explain that they are concerned about your ongoing 5 day headache and that HIV puts you at increased risk of infections including unusual infections around or in the brain (or types of brain tumour). You may need to ask further questions e.g.

   'What sort of infections?'

   The candidate should answer

   - meningitis (including unusual infections like yeast or fungal)
   - brain abscess (toxoplasmosis + other)
   - brain tumour (lymphoma)

   Do not let them spend too long talking about this or HIV, they need to explain their investigation plan.

2. *'Are there tests that you need to do?'*

Note: the most important items the examiners are looking for are the head CT and LP (see below). Please do not ask questions about the blood and other tests if these are explained first, to allow the candidate to get onto the CT/LP discussion. If they are spending too long on describing blood tests you should ask them *'Will I need anything else?'*

The candidate should plan to do some blood tests - they may tell you which ones - these may include full blood count, ideally also electrolytes and renal function, blood cultures, liver function tests and repeat HIV test (Note: in Australia a patient's consent is required for an HIV test. In New Zealand it is not. If you are asked if you consent to an HIV test, give your consent).

A urine sample and chest x ray to see if you have a urine infection or pneumonia.

A head CT - this may require IV contrast (special dye that is injected through a drip in your arm.) You may be asked again if you have ever had contrast dye or if you are allergic to contrast, iodine or seafood. Say *'no'* if you're asked this. The candidate may tell you there is a small risk of allergy to the dye but that it's required to get a better look at the brain and be absolutely sure there is no abscess causing your headache and fever, or the small chance of a tumour.

If they do not go on to describe the lumbar puncture, you should then *ask 'So what happens if the CT is normal?'*

A lumbar puncture - if the head CT is normal you will need a lumbar puncture. This is sometimes known as a spinal tap and involves inserting a needle through the skin of your back to collect some of the fluid surrounding your spinal cord. This is to see if you have meningitis as a cause of your headache and fever. It's important to do this to see which bugs are causing the infection so that you can be treated with the right antibiotics. It's a low risk procedure which is done under local anaesthetic. If you are really anxious you can have a small dose of something to relax you but usually this isn't necessary. The most likely complication from an LP is a headache, but steps will be taken to avoid this such as using the smallest needle possible to perform the procedure.

If they do not explain, ask them:

- *'What is a lumbar puncture?'*
- *'What are you looking for with that?'*

You are not resistant to the idea once explained.

If there is remaining time and the candidate has adequately explained

- what they are concerned about as the cause of your headache; and
- how they plan to investigate it including CT scan and lumbar puncture,

you may then ask *'How long will I have to be here?'*

You will most likely be admitted to hospital or possibly the short stay unit attached to the ED to wait for results. The candidate then may talk to you about referring you to the HIV service (e.g. Immunology or Infectious diseases clinic) for follow up.

Some better candidates (who have time) may discuss here the importance of trying to engage you with experts in HIV care (e.g. Infectious Diseases Unit) as HIV therapies are now very effective at controlling and minimising the complications of HIV. You should be receptive to this.

4. EXAMINER INSTRUCTIONS

Mark (played by an actor) is a 26 year-old HIV positive man who has been non-compliant with treatment and follow-up since diagnosis.

He presents with a 5 day history of a headache.

Given his history he is at risk for opportunistic CNS infections.

After approximately 5 minutes, Mark will ask the candidate what tests they plan to do.

The candidate should plan to perform:

- Blood tests- at least a full blood count, ideally also electrolytes & renal function, blood cultures, liver function tests and repeat HIV test
- A urine culture and chest Xray
- A head CT- initially a non-contrast but explaining to the patient he is likely to need contrast as well to exclude an infective lesion such as a toxoplasmal abscess
- A lumbar puncture if the CT brain is normal (and assuming no critical thrombocytopenia on the FBC) to exclude meningo-encephalitis

The candidate may qualify this by saying *'I'll need to examine you first but I think you'll need…..'* as there are unlikely to be examination findings which will significantly alter this plan of investigation.

A strong candidate will take a thorough history and include all the above tests with an explanation of what they are looking for. See Communication Strengths (below).

This OSCE will assess the following domains:

- Medical Expertise
- Communication

Communication Strengths

- Introduces person and purpose
- Establishes rapport with patient
- Maintains confidentiality and assures patient of this
- Starts with open ended questions and keeps this approach for initial questioning
- Resists interrupting early
- Actively listens to patient
- Responds to non-verbal cues
- Follows leads
- Conveys understanding and empathy
- Logically uses second order questioning to focus on and differentiate presenting problem/s
- Avoids premature closure
- Addresses aspects including past, family, social, allergies
- Repeats parts of history to patient to confirm listening and understanding
- Concludes by invitation for any further information that the patient wishes to convey

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 7

CANDIDATE barcode

EXAMINER 1 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.

Please rate ALL the following domains:

	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
Medical Expertise	○	○	○	○	○	○	○
Communication	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise	• **Able to take an appropriate headache history including onset, duration, severity, aggravating and relieving factors, associated features, previous similar episodes, treatment thus far, advice sought** (thorough history required for pass) • Addresses past history, family history, medications, allergies and social history • **Obtains history of HIV from patient** • Enquires about how HIV diagnosis was made and any treatment/follow up since diagnosis (e.g. CD4 count/viral load monitoring, antiretroviral treatment) • **Obtains sufficient history of non-compliance to establish that this patient is at high risk of opportunistic CNS infection and discusses this differential diagnosis with patient** • Recognises and prioritises the need for further investigation of headache including blood tests (**FBC and blood cultures minimum**), electrolytes, renal function, liver function, HIV serology, urinalysis and CXR. CT brain +/- contrast and lumbar puncture • **Establishes need for CT brain and lumbar puncture and discusses the rationale for these investigations with patient** • Able to outline an appropriate disposition plan for the patient
Communication	• **Obtains comprehensive but structured history from patient using open ended questions, active listening, response to non verbal cues, follows leads and focuses on aspects of history which lead to an appropriate differential diagnosis** • **Develops appropriate rapport and uses non-judgmental language** & assures confidentiality • Elicits the beliefs, wishes, concerns and expectations of the patient with regard to their HIV diagnosis • Explains to patient which tests are indicated and why • **Must tell the patient they need a CT brain AND lumbar puncture and explain rationale** • Conveys clear information about possible need for contrast with the CT and the risks • Conveys clear information about lumbar puncture including a basic explanation of the procedure • Discusses the importance of engaging with HIV services (e.g. Immunology, HIV clinic) • Provides basic information on the current therapies and prognosis in HIV positive patients with ongoing treatment

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 7

INFORMATION

Station Summary: Mark (played by an actor) is a 26 year old HIV positive man who has been non-compliant with treatment and follow-up since diagnosis.

He presents with a 5 day history of a headache suggestive of an opportunistic CNS infection

After taking the history, Mark will ask the candidate what tests they plan to do.

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.

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 8
EMERGENCY CONTRACEPTION AND HEALTH SCREENING

1. STATION SUMMARY

Consultation with 19 year-old female requesting emergency contraception as she had unprotected intercourse two nights previously.

2. CANDIDATE INSTRUCTIONS

You are the consultant on duty on a Monday morning of a metropolitan emergency department with access to all major specialties. Your next patient is a 19 year-old female who is asking for emergency contraception. Triage has commented that she seems anxious.

Your tasks are to:

- Obtain a focused history from the patient.
- Develop and discuss an appropriate plan with the patient.

You are not expected to examine the patient.

This OSCE will assess the following domains:

- Medical Expertise
- Communication

3. ROLE-PLAYER INSTRUCTIONS

Lisa is having a consultation with an emergency physician (the candidate) on a Monday morning in a metropolitan emergency department. She had unprotected sex with a man she had met at a party on Saturday night and is requesting the morning after pill (MAP). She is worried about the possibility of becoming pregnant.

She has had sexual intercourse on a few previous occasions with her regular boyfriend but had always used a condom. She broke up with her boyfriend a few months ago and had not had sex until Saturday night. She only met the man on Saturday at a party, admits to being 'a bit drunk'. She doesn't know much about him, apart from he works as a carpenter and has a number of tattoos. However, her friend has heard rumours that he is a 'bit of a drug user' – thus she is now anxious about HIV and 'anything else she could have caught' – wonders if she needs the 'HIV preventer'

The patient is quite upset as she thinks she was a bit stupid. She was a bit drunk and has never had unprotected sex before. She's very worried about the possibility of pregnancy as she's a law student and thinks a pregnancy would be disastrous for her career.

Patient becomes even more concerned/worried when she realises she's at risk from sexually transmitted infections and feels she's been really stupid. She may start crying at times.

SP must use these words:

'I'm worried I could get pregnant and wondered if I could have the morning after pill?'

The key information required is outlined below including the prompts / questions you need to ask if information is incomplete or not provided:

Emergency Contraception Morning After Pill (MAP)

Regarding emergency contraception morning after pill (MAP), including how to take It, side effects, safety, efficacy.

- *'How effective is it?'*
- Patient can ask *'Is it safe?'*
- *'Will it harm the baby if I do fall pregnant?'*
- *'Are there any side effects?'*
- *'Is that the best way? …. I just want to make sure that I don't get pregnant!!'*

The candidate may also suggest insertion of an IUCD (intra-uterine contraception device or "coil") is a possibility for emergency contraception. The patient doesn't like the idea of this and would prefer 'a pill'

The candidate is expected to take a history from Lisa, then counsel Lisa about the MAP, including safety, side effects, efficacy etc. The candidate is also expected to perform a risk assessment for likelihood of sexually transmitted infections, advise about future contraception and organise follow up.

Risk of HIV and Hepatitis

Candidate should discuss the risk of HIV with you and appropriately reassure you that the risk of HIV is very low and that 'HIV prevention' or 'Post-exposure prophylaxis' (PEP) is not indicated. If they do not fully discuss this, then ask *'What about the HIV preventer packs? (you Googled it) Wouldn't it be better to take it?'* Candidate should explain that is required for three months, significant side effects, not recommended.

Candidate should explain that Hep C is possible but low risk, no acute treatment indicated, curative treatment available. Hep B – should enquire about vaccination – some states began vaccination 1997, universal in 2000. May offer vaccination or checking levels. (immunoglobulin not indicated)

The candidate should suggest that although risk of HIV and Hepatitis is low, to be 100% sure the patient should have blood tests to test for these which need repeating in three months. Safe sex should be practiced in the interim. If they do not discuss this, then ask *'So after I've taken this treatment then it's all done?'*

Sexually Transmitted Diseases

The candidate should go on to assess the risks of sexually transmitted infections (Chlamydia, Gonorrhea). You are horrified but *'just want to make sure you don't catch anything'*. For Chlamydia and Gonorrhea the candidate may suggest testing and seeing GP for results or may suggest treating now 'to make sure' – you are open to either approach. Ask questions as required to ensure you understand. If they do not discuss 'sexually transmitted diseases' such as these then ask *'There's nothing else I could catch is there?'*

4. EXAMINER INSTRUCTIONS

Background Information

Lisa is a 19 year-old female (simulated patient) who had unprotected sex with a man she had met at a party on Saturday evening. She is worried she might get pregnant and has come to the emergency department requesting the 'Morning After Pill'. Her last period was 7 days ago. She has no significant past medical history apart from mild exercise induced asthma for which she uses a salbutamol inhaler occasionally. She is on no other medications and has no known allergies. She is a full time student studying law, binge drinks at weekends and smokes cigarettes when she goes out. She doesn't use any other drugs.

She has had sexual intercourse on a few previous occasions with her regular boyfriend but had always used a condom. She broke up with her boyfriend a few months ago and had not had sex until Saturday night. She only met the man on Saturday and doesn't know much about him, apart from he works as a carpenter and has a number of tattoos. She is anxious because a friend told her that she had heard rumours that he 'might be a drug user' and she is worried about HIV and 'anything else' she could catch.

Lisa is very worried about getting pregnant. She also is worried about HIV but has not really thought about the possibility of other sexually transmitted infections and is very concerned when this is raised. Not sure if has received Hep B vac (universal began in 2000, some states 1997).

Key Actions Expected from Candidate

- Empathic approach, establish rapport, active listening.
- Obtain an accurate, relevant history from the patient, particularly a sexual history.
- Discuss Emergency Contraception: MAP, how to take it, side effects, efficacy etc. (High dose progesterone pill, doesn't have to be taken in the morning, can be taken at any time, most effective the sooner it's taken after intercourse but can be taken up to 4 days post unprotected intercourse. It prevents about 85% pregnancies if taken within 3 days of unprotected sex. Side effects: uncommon, safe, nausea/ vomiting, some vaginal spotting. If vomit within 2 hr of taking tablet will need to take again. IUCD insertion also an option.
- Discuss risk STI and discuss if prophylaxis / treatment needed
    - Counsel re low risk of HIV and no indication for PEP
    - Appropriate discussion re Hep C, Hep B
    - Suggest serological testing for HIV, Hep B/C
    - Discussion / appropriate plan re Chlamydia/gonorrhoea testing or empiric treatment
- Ongoing contraception plan + discussion re 'Safe Sex' practices
- Follow up with LMO, for ongoing contraception, serology results

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 8

CANDIDATE barcode

EXAMINER 1 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

Medical Expertise

- Explain Emergency contraception options:
- **Morning After Pill (MAP)** – high dose levonorgestrel 1.5 mg OTC
  - Can be taken up to 4 days (licensed for 3 days) after unprotected intercourse, high dose progesterone tablet
  - Prevents 85% of pregnancies if taken within 3 days of unprotected sex
  - Safe, often no side effects but possibly nausea, **vomiting (if within 2-3 hrs need repeat dose)**, some PV spotting
  - Next menstrual period should be within 1 week of due date, if late will need a pregnancy test
- A 30mg single dose ulipristal acetate (UPA) tablet licensed for use up to 120 hours (five days) after unprotected sex; available by private prescription. More effective.
- Insertion IUCD within 5 days of unprotected sex more effective (99%) than MAP and can remain in situ for ongoing contraception
- **Assess risk/discuss sexually transmitted infections** (STI)
  - Appropriate language + reassurance
  - Suggest serological testing for Hep B/C, HIV
  - **HIV** - Unknown male, has tattoos, ?possible IVDU = **risk low (no indication for PEP)**, explain need for repeat serological testing in 3 months and protected intercourse in meantime (as small possibility pt could be infected)
  - **HCV** possible (curable), no acute intervention indicated
  - **Hep B** ?immunised – if not offer vaccination
  - **Chlamydia and gonorrhea**, suggest testing now then FU with GP for result and treatment if necessary/ or could empirically treat (Ceftriaxone 250 mg IM, Azithromycin 1g)
- **Ongoing contraception**, emphasise importance **condom for protection against STI's, and safe sex practices until testing negative**
- **Follow up with GP** (for contraception, serology)

Communication

- Establish a rapport with the patient
- **Elicit a thorough, accurate and relevant medical history, including sexual history**
- **Convey clear information using appropriate language about treatment options and risk /benefit considerations to the patient**
- Interpret non verbal clues and employ active listening
- Ensure information has been understood

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 8

INFORMATION

Station Summary: Consultation with 19 year old female requesting emergency contraception as she had unprotected intercourse 2 nights previously.

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.

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 9
CARE OF A CRITICALLY ILL NEONATE

1. STATION SUMMARY

1 month old critically unwell neonate who requires circulatory resuscitation and empiric antibiotics +/- antivirals. Resuscitation via IO. Despite adequate resus the neonate has a seizure requiring treatment, followed a few minutes later by another seizure. Intubation should be discussed.

Appropriate handover to an Intensivist at the end of the scenario.

2. CANDIDATE INSTRUCTIONS

It is 0930h on a weekend. You are in a small urban hospital. You lead a team of 2 ED nurses and an experienced registrar. Ambulance control ring to pre-notify you of a 1 month old Indigenous girl who has a 3 day history of being off her feeds. She is now lethargic, mottled and only responding to pain. Her vitals include T 35 C, HR 170/min and thready, RR 70/min, sats just show a poor trace. The patient has no IV access and is not intubated. Estimated time of arrival is 3 minutes.

Your tasks are to:

- Prepare your resuscitation team for this patient's arrival
- Receive clinical handover from the ambulance crew
- Lead your team in the ongoing assessment and management of the patient
- Refer the case to appropriate service(s) after your initial care

This OSCE will assess the following domains:

- Medical Expertise
- Teamwork and Collaboration
- Prioritisation and Decision Making

3. ROLE-PLAYER INSTRUCTIONS

1x ED Registrar with experience in paed procedures including intubation and vascular access

2x ED Nurses who are experienced and perform tasks as directed by the candidate

This paediatric scenario involves a manikin, standard paed airway and circulation equipment, and an iPAD monitor for patient vitals. A white board will be used to record patient medications/orders, infusions, fluids etc. Each of these will be recorded by one of the nurse confederates.

Your role as registrar and nurses:

- You are a competent Emergency Department registrar and nurses with all paediatric resuscitation skills, although you haven't done an IO on a neonate before and might need a bit of instruction.
- If you are asked to put in Periph IVC AFTER resuscitation you get it straight in and can send off bloods.
- You are competent in performing a primary and secondary survey and will convey the findings to the candidate.
- Your role is important in moving the scenario in the correct direction in a timely manner
- You provide information to the candidate about examination findings
- You give prompts where appropriate about changes in patient condition.

However

- You will not show initiative or suggest solutions/problems e.g. If the BP is low you will merely state *'The BP is 70'* and try to avoid statements that tend to suggest that there is a problem needing fixing *'The BP is still low at 75, should we do something about that?'* or potential solutions *'Would you like to give some fluid for that?'*. This can be difficult as it is the opposite of good practice.
- If a candidate has mentioned a particular treatment/management earlier in the scenario which has not actually been delivered it is reasonable to give a reminder e.g. *'What did you say earlier about the BP?'* or *'Should we give the x now?'*

Summary:

1 month old critically unwell neonate who requires circulatory resuscitation and empiric antibiotics +/- antivirals. Resuscitation via IO. Despite adequate resus the neonate has a seizure requiring treatment, followed a few minutes later by another seizure. Intubation should be discussed. Appropriate handover to an Intensivist at the end of the scenario.

Stage 1: (approximately 0-3 minutes)

- The candidate will arrive and begin planning for the arrival and assign roles
- You can set up according to directions from the candidate
- You may ask the candidate *'What would you like me to do?'* if no tasks assigned
- Candidate may use whiteboard in room to determine any calculations
- Expectations that candidate will assign roles, prepare equipment, fluids, drugs , doses

Stage 2: (approximately 3-8 minutes)

Background Information for Handover to ED Team (by examiner as ambulance officer)

Abby is an Indigenous girl born at 36/40. She is now 4 weeks old. Her birth weight was 3 kg. She is breast fed and is gaining weight. For the past 3 days she has been off her feeds and is now not waking for feeds. Now she is lethargic, only responding to pain, mottled and shut down. Initial vital signs are HR 170/min and thready, RR 70/min, sats just show a poor trace. We've been unable to get IV access and she is not intubated. She has no drug allergies.

Mum is en route.

Candidate should prompt pt to go onto full monitoring.

Primary Survey: feedback findings as they occur

- Estimated weight = 3-4 kg
- Airway OK and stable (cries to painful stimulus)
- Breathing fast but no respiratory distress. Provide high flow oxygen. Sats only show poor trace (pt too shut down) – better candidates will try central sats probe eg ear lobe
- Circulation is focus of concern. Capillary refill = 6 sec. BP 70/50., HR 170 Signs of hypovolaemia present. Establish access – IV attempts unsuccessful, must move to IO rapidly (candidate to direct insertion to Registrar). Take bloods for comprehensive panel, including FBC, biochem, BSL, CRP, BCs, VBG (not from IO as will clog machine), lactate, metabolic screen, coags, urine. Rapid infusion (manual push on IO - specific instruction from Candidate required re use of syringe to bolus fluid ie. nurse will need direction to ensure boluses effectively delivered (essential)) of warmed crystalloids initially 20 ml/kg. (60-80 mls) Reassess response. BP can go to 75/55, CRT = 4 sec. Should repeat bolus 20ml/kg . BP can go to 80/60, CRT = 3 sec. HR to 155 Sats now show 94% - only appear after 2nd fluid bolus as perfusion improving
- Empiric antibiotics: Cefotaxime 50 mg/kg IO + Amoxicillin 50 mg/kg IV/IO (or amp/gent) +/- Vancomycin 30 mg/kg IO if high risk MRSA (correct ABx essential, doses desirable, Vanc desirable)
- Consider empiric antivirals: acyclovir 10 mg/kg IO (desirable)
- BSL 8.1 (essential without prompt)
- E-FAST (optional). Registrar confederate will simulate this procedure if requested, and report a negative result.
- No focal neurological disability. Moves all limbs but only to painful stimuli
- Exposure and environmental control. Aim for normothermia. BSL maintenance.
    - Preliminary bedside imaging: CXR (CXR will be available in a few minutes – Ask *'What does it show?'*)

Stage 3: (approximately 8-12 minutes) (at this stage CRT 3, BP 80/60, HR 155, RR 70, sats 94%)

Secondary Survey: Sufficient exposure (must undress child) to allow more detailed examination. Look for rash, check umbilicus, bulging fontanelle, signs of NAI, signs of heart failure (diaphorsesis, enlarged liver). Registrar can prompt 'What do you think is going on?' 'What are you looking for?' Registrar can state no rash, umbilicus looks normal, fontanelle sunken, no bruising, liver normal, chest clear as pt examined.

- **Candidates expected to discuss a differential diagnosis:** sepsis (chest, urine, CNS, skin), cardiac, trauma – particularly NAI, toxins, metabolic
- Recognising persistent shock despite fluid therapy
- **9-10 min:** despite resuscitation the infant has a seizure

  Registrar announces abnormal movements of lip smacking and eye jerking. Expected management = cessation of seizure (BDZ e.g. midazolam 0.1-0.2 mg/kg IV/IO) (dose and med essential), maintain airway, check BSL (not expected to recheck if already done, but is an opportunity to redeem self if BSL not done. If missed a second time = serious omission). Seizure stops with treatment. Candidate should have some discussion as to whether to intubate or not (this discussion could occur now or after 2nd seizure). Both options ok as long as justified, although Registrar will try to block with *'patient's breathing is OK, airway is patent'* so conversation can be had with Intensivist. Aim for all candidates to have this conversation with the intensivist.

CXR can come up at this time if need a time filler.

Stage 4: (approximately 12-14 minutes)

- Further seizure at 12 min (Registrar announces abnormal movements of lip smacking and eye jerking) – need more BDZ + 2nd line agent added e.g. phenobarbitone, phenytoin or levetiracetam (Keppra) 20 mg/kg IO. Medication: essential; dose: desirable.
- Seizure ceases with second dose of BDZ

Stage 5: (approximately 14-17 minutes)

- Handover (at 14 min)
- Phone call from Paeds ICU specialist from receiving hospital should be concise and also discuss management to date and ongoing plan – need to image head (US fontanelles or CT). Discussion on whether pt needs intubating or not – Intensivist can ask what set up they would use
- Prompts from Intensivist *'Do you think they need intubating?' 'What about for transport?' 'What agents will you use?' 'What tube size?'*
- *'If they get worse will you intubate them?' 'What agents will you use?' 'What tube size?'*

4. EXAMINER INSTRUCTIONS

Background Information for Handover to ED Team (by examiner as ambulance officer)

Abby is an Indigenous girl born at 36/40. She is now 4 weeks old. Her birth weight was 3 kg. She is breast fed and is gaining weight. For the past 3 days she has been off her feeds and is now not waking for feeds. Now she is lethargic, only responding to pain, mottled and shut down. Initial vital signs are HR 170/min and thready, RR 70/min, sats just show a poor trace. We've been unable to get IV access and she is not intubated. She has no drug allergies.

Mum is en route.

Scenario Progress

Abby is in shock and requires urgent resuscitation. She requires oxygenation, IV access (attempts fail until an IO is inserted) with BSL measurement, fluid resuscitation, empiric antibiotics. Despite initial IO crystalloid resuscitation, her haemodynamic state fails to improve adequately. She has a seizure and despite treatment for this has another seizure a few minutes later. Intubation may be required.

Key Actions Expected from Candidate

Paed Resus team activation and preparation of receiving team in small urban ED. Role allocation. Anticipate needs. Prepare fluids, drugs, equipment. Pre-notification of other services: paeds, ICU, radiology, laboratory.

Primary Survey:

Structured, prioritised approach to unwell infant. Simultaneous management of clinical priorities (see below).

- Estimated weight = 3-4 kg
- Airway OK and stable
- Breathing fast but no respiratory distress. Provide high flow oxygen. Sats only show poor trace (pt too shut down) – better candidates will try central sats probe eg ear lobe
- Circulation is focus of concern. Capillary refill = 6 sec. BP 70/50. Signs of hypovolaemia present. Establish access – IV attempts unsuccessful, must move to IO rapidly (candidate to direct insertion). Take bloods for comprehensive panel, including FBC, biochem, BSL, CRP, BCs, VBG (not from IO as will clog machine), lactate, metabolic screen, coags, urine. Rapid infusion (**manual push on IO** - specific instruction from Candidate required regarding use of syringe to bolus fluid ie.i.e. nurse will need direction to ensure boluses effectively delivered) of warmed crystalloids initially 20 ml/kg. Est weight = 3-4 kg. Reassess response. BP can go to 75/55, CRT = 4 sec. Should repeat bolus 20ml/kg . BP can go to 80/60, CRT = 3 sec. Sats now show 94% - only appear after 2nd fluid bolus as perfusion improving
- Empiric antibiotics: Cefotaxime 50 mg/kg IO + Amoxicillin 50 mg/kg IV/IO (or amp/gent) +/- Vancomycin 30 mg/kg IO if high risk MRSA (must get first two ABx correct, doses desirable)
- Consider empiric antivirals: acyclovir 10 mg/kg IO (desirable)
- BSL 8.1 (ESSENTIAL WITHOUT PROMPTING)
- No focal neurological disability. Moves all limbs but only to painful stimuli
- Exposure and environmental control. Aim for normothermia. BSL maintenance.

Secondary Survey:

Sufficient exposure to allow more detailed examination (ESSENTIAL)

- Look for rash, check umbilicus, bulging fontanelle, signs of NAI, signs of heart failure (diaphoresis, enlarged liver).
- Registrar prompting 'What is going on? What are you looking for?'
- No rash, umbilicus ok, sunken fontanelle, no bruising

Preliminary bedside imaging: CXR (CXR will be available in a few minutes – normal mass mediastinum (thymus), nothing focal in the lung fields). (CXR can be time filler anytime in 8-12 minute period or after second seizure)

Candidates expected to discuss a differential diagnosis:

- Sepsis (chest, urine, CNS, skin), cardiac, trauma – particularly NAI, toxins, metabolic
- Recognising persistent shock despite fluid therapy
- ON monitor BP 80/60, HR 155, RR 70, sats 94% on)2 NRB.
- CRT still 3 seconds

Ongoing Scenario

- Despite resuscitation the infant has a seizure at around 9-10 min (confederate announces abnormal movements of lip smacking and eye jerking). Expected management = cessation of seizure (BDZ e.g. midazolam 0.1-0.2 mg/kg IV/IO), maintain airway, check BSL (BSL slightly elevated around 8). Seizure stops with treatment. Candidates should have some discussion as to whether to intubate or not (this discussion could occur now or after 2nd seizure). Both options ok as long as justified , although Registrar will block with "breathing OK, airway patent" so conversation can be had with INtensivist>
- Further seizure at 12 min (same abnormal movements as above) – need more BDZ + 2nd line agent added e.g. phenobarbitone, phenytoin or levetiracetam (Keppra) 20 mg/ kg IO. MEDICATIONS: ESSENTIAL; Doses: desirable.
- Candidate may well want to intubate pt at this stage – appropriate use of drugs (not worsening haemodynamic compromise) and ETT etc.

Handover (at approximately 14 minutes)

- Should be concise and also discuss ongoing plan – need to image head (US fontanelles or CT). Discussion on whether pt needs intubating or not – Intensivist can ask for set up if not already done (then all candidates can get ready and be judged on setup)
- Prompts from Intensivist *'Do you think they need intubating?' 'What about for transport?' 'What agents will you use?' 'What tube size?'*
- *'If they get worse will you intubate them?' 'What agents will you use?' 'What tube size?'*

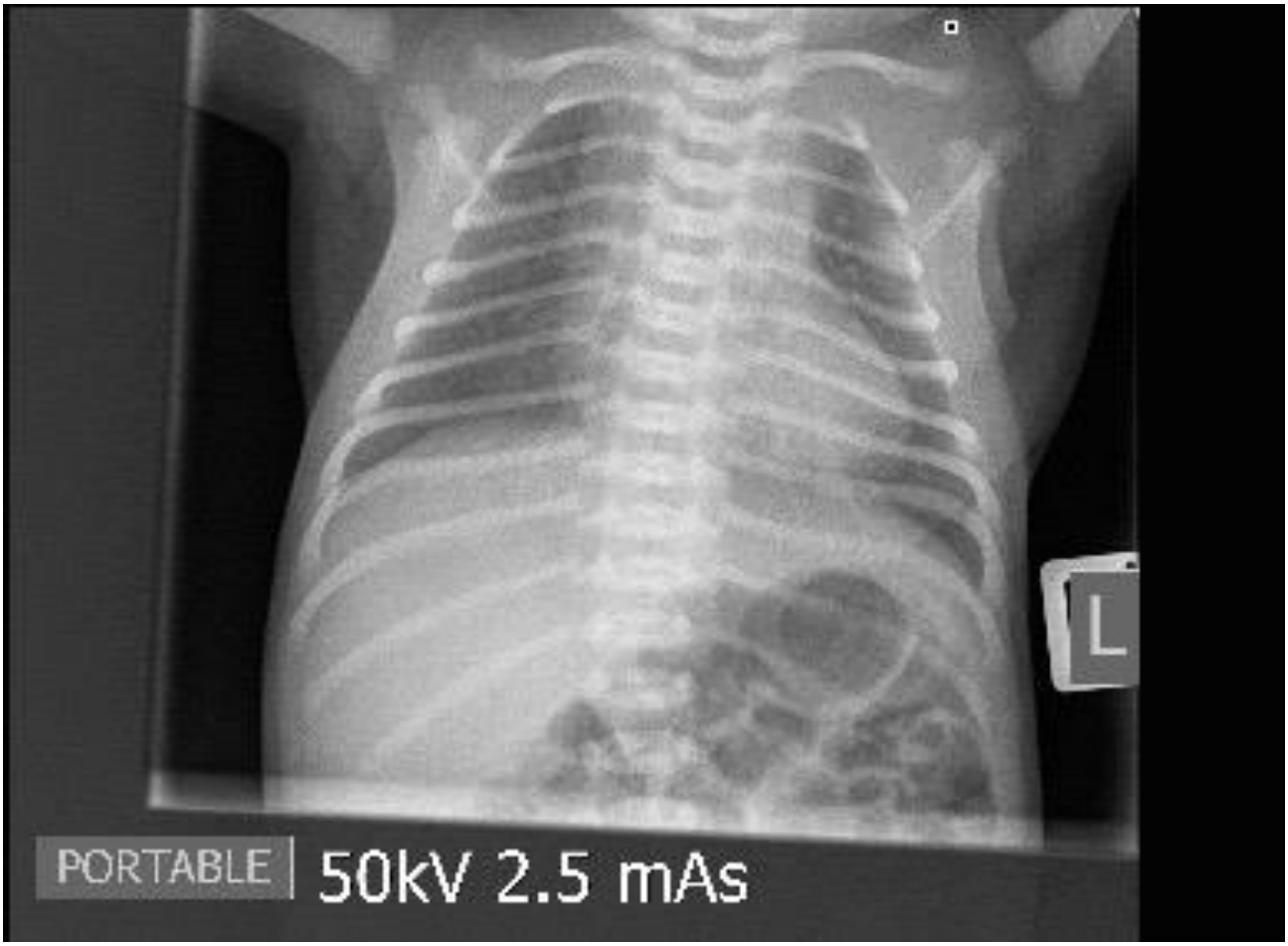
Key Assessment Issues:

Structured approach to unwell neonate, teamwork and leadership, effective communication, fluid resus and empiric antibiotics, management of seizure, decision making re whether to intubate (or not), adequate handover.

This OSCE will assess the following domains:

- Medical Expertise
- Teamwork and Collaboration
- Prioritisation and Decision Making

Chest Xray



Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 9

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	○	○	○	○	○	○	○
Teamwork & Collaboration	○	○	○	○	○	○	○
Prioritisation & Decision Making	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above (BOLD = ESSENTIAL)

Medical Expertise	• **Identifies key issues and anticipated challenges prior to patient's arrival + prepares personnel and equipment** • **Leads / coordinates primary survey, secondary survey , clarifies findings** • **Appropriate direction of IO insertion** • **Appropriate fluid resuscitation via IO bolus 20 ml/kg 0.9% saline and repeat required, and understanding of need to push** • Adequate differential diagnoses: sepsis (chest, urine, CNS, skin), cardiac, trauma – particularly NAI, toxins, metabolic • **Recognises and treats likely sepsis with empiric IO antibiotics (e.g. Cefotaxime 50 mg/kg + Amoxycillin 50 mg/kg) +/- antivirals (acyclovir 10 mg/kg)** • **Mgt of seizures (e.g. Midazolam 0.15 mg/kg IO, 2nd line agents Phenobarbitone or Phenytoin or Leveteracetam/ Keppra all at 20 mg/kg IO)** • Effective, safe drug doses – if performing RSI, avoiding agents that will compromise BP • High level interpretation of Ixs: CXR • **Understands importance of BSL and checks**
Teamwork & Collaboration	• **Demonstrates effective team leadership** • Communicates / broadcasts clinical scenario, and priorities • Supports team members • **Effective collaboration with other clinicians: ambulance, Intensivist – clear summary /handover with DD and Mx**
Prioritisation & Decision Making	• **Structured approach to unwell neonate assessment: Primary / Secondary Survey and prioritized attention to simultaneous clinical demands.** • Appropriate role / task delegation to team members. • **Discusses at consultant level the likely differentials and looks for them sepsis (chest, urine, CNS, skin), cardiac, trauma – particularly NAI, toxins, metabolic** • **Appropriate management of seizures** • **Consultant level discussion of whether to intubate**: pros: secure & protect airway, safer for transport and ongoing investigation Cons: loss of current airway if can't intubate, haemodynamic instability – may worsen if particular induction drugs used in usual doses, won't see on-going seizure activity if paralysed • Situational awareness: of current and anticipated problems: clinical deterioration, patient transfer etc.

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 9

INFORMATION

Station Summary: 1 month old critically unwell neonate who requires circulatory resuscitation and empiric antibiotics +/- antivirals. Resuscitation via IO. Despite adequate resus the neonate has a seizure requiring treatment, followed a few minutes later by another seizure. Intubation should be discussed.

Appropriate handover to an Intensivist at the end of the scenario.

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

Page 2 of 2 **(end of form)**

STATION 10
UPPER LIMB EXAMINATION

1. STATION SUMMARY

Examination of upper limb of patient who has had a spontaneous reduction of an elbow dislocation. Ongoing ulnar sensory neuropraxia. Orthopaedic, vascular, neurological examination.

2. CANDIDATE INSTRUCTIONS

You are working in the Ambulatory care area of your emergency department.

You are about to review your next patient and read the Triage notes:

> "23 year-old male, 1st year medical student, R elbow injury after fall onto outstretched arm in hospital grounds. Initially (?) dislocated, apparently reduced when friend moved arm. Tingling in hand, improving. Now appears reduced, in sling, ice applied. No other apparent injuries. Paracetamol / ibuprofen given."

Your tasks are to:

- Perform a focused examination of his right arm
- Explain your examination as you proceed (the patient is a medical student and will ask you to do this for their own learning)
- Provide an explanation of your assessment and management plan

You are not expected to teach the medical student or to assess their level of knowledge.

This OSCE will assess the following domain:

- Medical Expertise

3. ROLE-PLAYER INSTRUCTIONS

This station assesses the candidate's ability to perform a focused upper limb examination of a patient presenting after an apparent R elbow dislocation with spontaneous reduction prior to arrival. It is an isolated injury.

The patient (you) in the OSCE is a 1st year Medical student (haven't covered upper limb anatomy yet) and the candidate has been asked to explain their examination to you as they proceed. When they begin examining you please say *'Can you tell me what you are doing and looking for as you go…I'm interested for my own learning'*

If they ask you any questions regarding your medical knowledge, say *'We haven't done that yet'*.

The candidate has been asked to explain to you their assessment and plan for further investigation and management. If they have not done so then at approximately the 5½ minute mark you will say *'What do you think is going on? What will the plan be from here?'*

You will have your right arm in a sling and will be holding a blue 'cold pack' over your elbow. You will be seated. You are comfortable; the Nurse has given you some pain relief.

The candidate is expected to:

- Clarify the history:
    - Fell running on grass in hospital gardens accident – you landed on outstretched R arm, immediate severe pain and crunching sensation in your elbow. Your hand was tingly 'all over' and looked white.
    - Unable to move arm. Friend was helping you to get out of the bushes, they lost balance and moved your arm, felt the elbow 'go back in' with marked reduction in pain. Sling applied, ice. If they ask, *'the tingling is improving'*. If they ask where it is tingling now say *'the whole hand I think'.*
    - No other injuries
    - No past medical history, no allergies. R handed. Social sports.
    - If asked you had some tingling in your whole hand, seems to be improving.
- Conduct orthopaedic examination:
    - Elbow: Confirm relocation by palpating humeral epicondyles and olecranon which should be in an 'equilateral triangle' relationship. If they comment on a lack of swelling say *'It only happened about 10 minutes ago'*
        - If necessary ask *'Can you tell if it is back in?' 'How?'*
    - Forearm/ wrist/ scaphoid/ hand
    - They may suggest gentle range of motion examination or assessment of the ligaments. If so say *'OK, but it was pretty sore!'*
- Conduct vascular assessment:
    - Capillary refill, perfusion, radial pulse
    - *'Why are you assessing that?'* – They should tell you that vascular injury to the brachial artery is a rare complication of dislocation, and because your hand was pale at the time
- Conduct neurological assessment:

  You may need to ask them to explain how they are assessing the sensation and motor function of each of the following nerves, ask for adequate detail so that it is clear. *'What are you assessing now?' 'What nerve are you testing?' 'What are you looking for?'* Ensure that they explain how they are testing for the motor and sensory component for all 3 nerves.
    - Ulnar nerve:
        - Sensation: Medial 1 ½ fingers. It is numb to touch. The pin does not feel sharp but you can feel it (if they test)
        - Motor: Holding paper between 2 fingers, gripping paper between thumb and index or making ring sign (thumb bends = Froment's sign), finger abduction (pushing apart), ulnar wrist deviation FCU. Power is reduced with thumb adduction and finger abduction.

- Median nerve:
  - Sensation: Palm of hand. Lateral fingers.
  - Motor: Thumb abduction (pen-touching), thumb opposition, thumb tip flexion.
- Radial nerve:
  - Sensation: Dorsum of base of thumb.
  - Motor: Wrist extension, thumb extension .

If their examination is incomplete then ask *'Is there anything else that you need to examine?'*

- Assessment: At approximately the 5½ minute mark ask *'What do you think is going on? What will the plan be from here?'*
  - Diagnosis
    - Dislocation elbow, now reduced
    - Ulnar nerve neuropraxia: Should resolve with time, related to nerve stretching

      If necessary ask *'What about the numbness and weakness…what is that from?' 'Will it get better?'*
  - Investigation
    - Xray to assess for avulsion / other injury
  - Management
    - Analgesia, ice
    - Short period of immobilization for comfort: plaster back slab or sling/similar. If necessary ask *'Do I stay in a sling?' 'For how long?'*
    - Early mobilisation 1-2 weeks, ideally physio to assist
    - Review in orthopaedic clinic would be standard

      If necessary ask *'Will I need any follow-up?'*

4. EXAMINER INSTRUCTIONS

This station assesses the candidate's ability to perform a focused upper limb examination of a patient presenting soon after an apparent R elbow dislocation with spontaneous reduction prior to arrival. It is an isolated injury.

The patient in the OSCE is a Medical student and the candidate has been asked to explain their examination as they proceed. The candidate has been asked to explain their plan for further investigation and management (at approximately the 5½ minute mark the Role Player will ask them for this). The Role player will have their right arm in a sling and will be holding a blue 'cold pack' over their elbow.

Key Actions Expected from Candidate

- Clarify the history: fell running on grass in hospital grounds – landed on outstretched R arm, immediate pain and crunching sensation in elbow. Was unable to move arm. Felt tingling in hand, hand was pale and white. Friends were helping him to get up out of bushes, they lost balance and moved his arm, felt the elbow 'go back in' with marked reduction in pain. Tingling has improved if asked. Sling and cold pack applied. No other injuries, no PMHx. Right handed.
- Confirm relocation: equilateral triangle relationship of epicondyles and olecranon.
    - May possibly move elbow through gentle ROM
- Exclude other orthopaedic injuries: Palpate radius/ ulna, examine wrist, scaphoid, hand.
- Vascular assessment: Perfusion, capillary refill, radial pulse.
- Neurological assessment hand
    - Radial nerve: Wrist extension, sensation dorsum base thumb
    - Median nerve: Thumb IP flexion, thumb opposition/pen-touching, sensation to palm.
    - Ulnar nerve: There will be numbness in ulnar N distribution (med 1½ fingers). Froments sign will be positive with weakness of thumb adduction as well as weakness of finger abduction, FCU.
- Communicate findings and plan
    - Elbow dislocation, now reduced
    - Xray required (confirm correct relocation, look for associated #)
    - Ulnar nerve neuropraxia – should recover with time
    - Further management
        - Conservative
        - Short period of immobilization (e.g. POP back slab 1-2 week max) traditional approach. NOT FULL CYLINDER POP
        - Recent studies suggest early mobilisation may improve outcomes
        - Formal review in view of neuropraxia

This OSCE will assess the following domain:

- Medical Expertise

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 10

CANDIDATE barcode

EXAMINER 1 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	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise

- History: Confirms likely dislocation and reduction
- Orthopaedic examination
  - Confirmation of relocation: epicondyle – olecranon equilateral triangle
  - Exclude other orthopaedic injuries (forearm, wrist, hand)
- Vascular examination: Capillary refill, warmth/colour, **radial pulse**
- Neurological examination
  - Ulnar nerve: Sensation (**med 1.5 fingers**), Motor **(thumb adduction, Froments sign, finger add/abduction, FCU**) 1 of motor. Diagnosis of **sensory and motor neuropraxia**
  - Radial: Sensation (**dorsum base thumb**). Motor (**Wrist extension or thumb extension**)
  - Median: Sensation (**palm, lateral 3.5 fingers**). Motor (**Thumb abduction/IP flexion = FPL/ opposition**) 1 of motor
- Further management
  - **Xray** (confirm correct joint relocation, look for associated fractures of coronoid process, radial head, capitellum and olecranon)
  - Short term Immobilization (POP slab, sling for 1-2 weeks, **FULL CYLINDER POP CONTRAINDICATED)**
  - Analgesia/ Ice
  - Awareness of need for **early mobilization** 1-2 weeks
  - **Neuropraxia expected resolution**
- Orthopaedic/ physiotherapy follow up

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 10

INFORMATION

Station Summary: Examination of upper limb of patient who has had a spontaneous reduction of an elbow dislocation. Ongoing ulnar sensory neuropraxia. Orthopaedic, vascular, neurological examination.

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:

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

EXAMINER SIGNATURE:

OSCE 1

STATION 11
PATIENT MANAGEMENT – ECG ANALYSIS

1. STATION SUMMARY

A registrar has brought a patient's ECG to the candidate for review and is seeking advice from the candidate on management of the patient. Candidate's tasks are to interpret the ECG, provide appropriate management advice and address any registrar concerns.

2. CANDIDATE INSTRUCTIONS

You are the duty consultant of a tertiary emergency department. Your registrar has just seen a 58 year-old whom they are suspecting has taken an overdose of slow release verapamil 3 hours ago. They have bought you the ECG to review and would like to seek your advice on management of the patient.

His regular medications include:

- Aspirin 100mg daily
- Atorvastatin 40mg daily
- Verapamil SR 240mg daily
- Pantoprazole 40mg daily
- Sertraline 50mg daily

His vital signs are:

- HR 36
- BP 90/55
- Sats 95% RA
- RR 24
- GCS 13

Your tasks are to:

- Interpret the ECG
- Provide appropriate management advice
- Address any registrar concerns

You will not be required to directly manage or assess the patient.

This OSCE will assess the following domains:

- Medical Expertise
- Prioritisation and Decision Making

3. ROLE-PLAYER INSTRUCTIONS

You are the junior registrar of a tertiary emergency department. You have just seen Mr Smith who is a 58 year-old with a suspected calcium channel blocker overdose. He was found by his family member 1 hour ago with an empty pack (30) of verapamil sustained release 240mg tablets and an empty bottle of vodka.

He was last seen by his family members 3 hours prior to been found.

He has been stressed about work issues and felt depressed. He was thinking of ending his life so that he doesn't have to deal with it.

He took his Verapamil SR all in the one go with a bottle of vodka. He hasn't taken any other tablets he is aware of.

He has no chest/abdominal pain.

He feels light headed and is unsure whether it is the alcohol or tablets.

His background medical history includes:

- Hypertension
- Hypercholesterolaemia
- Ischaemic Heart Disease
- Gastro-Oesophageal reflux
- Depression

His regular medications include:

- Aspirin 100mg daily
- Atorvastatin 40mg daily
- Verapamil SR 240mg daily
- Pantoprazole 40mg
- Sertraline 50mg daily

Social History:

- Works as labourer
- Smokes 15 cigs/day for the past 30 years
- Drinks 3-4 times a week
- Lives with wife and children

His vital signs are:

- HR 36
- BP 90/55
- Sats 95% RA
- RR 24
- GCS 13 (E3V4M6)

Cardiovascular/respiratory and gastrointestinal examination is unremarkable.

There is no focal neurological deficits.

An ECG has been performed and the candidate has seen this outside the room.

Prompts for the Role-Player

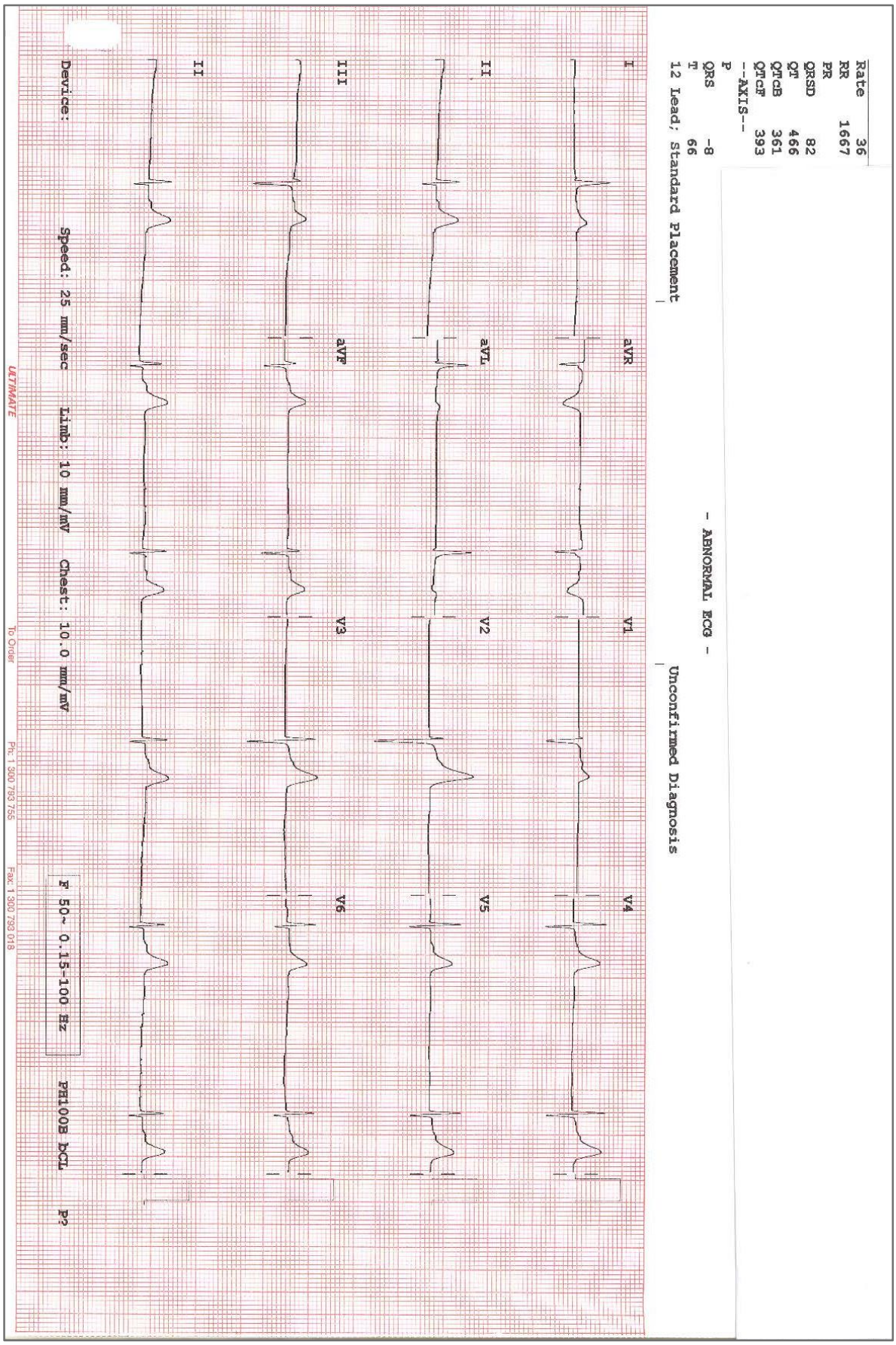
- *'I see the nurses have given you the ECG of Mr. Smith, who has possibly taken a verapamil overdose. What do you make of it?'*
- *'So it seems that he really took the pills then?'*
- *'What's my management priority?'* or *'What should I do first?'*
- If IV fluids are mentioned, '*how much?' 'What should my haemodynamic goals be?'*
- *'How do I specifically address his bradycardia?'*
- *'What should my end points of therapy be e.g. BP, HR?'*
- *'Are there any antidotes that would be useful in this patient?'*
- *'What specific treatments actually work for this?'*
- *'Is there any role for decontamination in this man?'*
- *'Is there a role for pacing?'*
- *'What if despite all the above therapies he continues to deteriorate?'*

4. EXAMINER INSTRUCTIONS

The case scenario is based on a patient who has taken an overdose of calcium channel blocker and is currently symptomatic with borderline haemodynamics. The tasks of the candidate are to identify the lethal nature of this overdose, institute appropriate initial life-saving treatment, seek appropriate advice from relevant specialities and formulate a sound disposition plan.

The candidate will have the ECG to review outside the room.

ECG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RR 1667
PR
QRSD 82
QT 466
QTcB 361
QTcF 393
--AXIS--
P
QRS -8
T 66
12 Lead; Standard Placement
- ABNORMAL ECG -
Unconfirmed Diagnosis
I
II
III
aVR
aVL
aVF
V1
V2
V3
V4
V5
V6
II
Device:
Speed: 25 mm/sec Limb: 10 mm/mV Chest: 10.0 mm/mV
F 50~ 0.15-100 Hz
PH100B bCL P?
ULTIMATE
To Order
Ph: 1 300 793 755
Fax: 1 300 793 018

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 11

CANDIDATE barcode

EXAMINER 1 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.

Please rate ALL the following domains:

	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
Medical Expertise	○	○	○	○	○	○	○
Prioritisation & Decision Making	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise

ECG: Identify a **junctional escape rhythm**.

Risk Assessment: Identify this is a life threatening ingestion

Immediate Management:

- Resus bay, **cardiac monitoring**, O2
- ABC, IV access, bloods, BSL (accept BSL is included in a VBG)
- CXR/VBG (noting BSL and lactate are important parts of the VBG)/electrolytes)
- Atropine – unlikely to work (0.5-1.5mg iv q15min if working)
- **Support haemodynamics :**
- **Fluids (accept 1-2L in view of IHD).**
- **Calcium** empirically (CaCl2 or CaGluconate with doses)(CaCl2 10% 10mL over 10mins q5min or CaGluconate 10% 30mL over 10 mins q5min)
- Adrenaline or NorAd or metaraminol. **Pressors** should not be used in isolation without calcium/insulin (this is a pass/fail criteria as use without other therapy is likely to be ineffective and harmful).
- Consider pacing

Role of Decontamination:

- Consider pre-emptive intubation for whole bowel irrigation/charcoal. GCS is 13. Charcoal without intubation may be problematic. Intubation without anticipation of haemodynamic instability may also be problematic.

Definitive Treatment (For CCB poisoning):

- **High dose insulin-euglycaemia therapy** (Including doses) (Start an infusion 0.5 -1U/kg/hr as starting dose range for infusion, together with 10% dextrose at 100ml/hr, keeping BSL between 5.5-11mmo;/L) May need to increase to 50%
- ECHO – to look at haemodynamic status
- External Pacing – may get electrical capture, but not mechanical capture. Transvenous ventricular pacing is the better choice because of AV node blockade.
- Glucagon – no human data; no longer used (not a pass/fail criteria)

Other measures:

- IABP/ECMO
- Bicarb if severe acidosis: 1-2mmol/kg q5min titrating to narrowing of QRS, resolution of arrythmia or pH>7.3
- Note that there is no role for dialysis

Additional information:
Candidates could score higher if they consider other polypharmacy overdose such as salicylate/sertraline.

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 11

Prioritisation & Decision Making	The following sequence would demonstrate Prioritisation & decision-making: • 1. Cardiorespiratory monitoring • 2. Management of the current/anticipated haemodynamic instability: fluid, Ca, insulin have a higher priority than glucagon, pressors and pacing • 3. Consider decontamination and appropriate airway management (GCS 13) • 4. Poisons Centre : • Note 1: No inititaion of treatment prior to contacting Toxicology service is below the standard expected. • Note 2: If the candidate is managing the patient appropriately, contacting the toxicology service is not mandatory. • 5. Addressing the Mental health issue • 6. Requires HDU/ICU admission

INFORMATION

Station Summary: A registrar has brought a patient's ECG to the candidate for review and is seeking advice from the candidate on management of the patient. Candidate's tasks are to interpret the ECG, provide appropriate management advice and address any registrar concerns.

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:

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 12
TRAINEE MENTORING

1. STATION SUMMARY

The candidate is a mentor to a new trainee, and has been informed by a DEMT colleague that there are some performance issues with the trainee, in relation to over-confidence in clinical skills and knowledge, and professionalism. The candidate will meet with the trainee as their mentor to provide support and guidance, discuss the issues raised by the DEMT, and explore the trainee's understanding of the outcome of the DEMT meeting.

2. CANDIDATE INSTRUCTIONS

You are a FACEM in a tertiary ED with a large number of trainees. You have been allocated to be the mentor of a trainee Dr Kerry Smith. Dr Smith is new to your hospital and is only 6 weeks into their first term as an Advanced Trainee. Your colleague who is DEMT has made you aware that there have been some performance issues with Dr Smith. The DEMT has already met with the trainee to discuss these issues and has developed a plan to address them.

The main issues covered in the DEMT meeting were

1. Over confidence in clinical skills and knowledge – the trainee has high level of "book" knowledge, was successful at the primary exam on their first attempt. However, in clinical practice, the trainee appears overconfident and has made significant management decisions without consulting seniors that have threatened patient safety.
2. Professionalism – the trainee has had complaints from nursing staff about being rude and condescending in clinical interactions.

The DEMT has asked you to meet with the trainee in your capacity as mentor to provide support and guidance. Prior to today, you have been introduced but have not had much interaction "on the floor" and you have not yet had a formal meeting with the trainee until now.

Your tasks are to:

- Meet with the trainee and discuss the issues raised by the DEMT.
- Explore the trainees understanding of the outcome of the DEMT meeting.
- Provide support and guidance as the trainee's mentor.

This OSCE will assess the following domains:

- Professionalism
- Communication

3. ROLE-PLAYER INSTRUCTIONS

In this OSCE station you will be playing the role of an ACEM trainee who is underperforming. The candidate will be assuming the role of a FACEM who has been allocated to be your mentor.

You are new to the department and have only been an Advanced trainee for the past 6 weeks. You have found working in a new department challenging but you believe you have been doing a good job. You have recently had a meeting with the department's DEMT in which your performance was discussed.

The main issues the DEMT raised in the meeting were:

1. Overconfidence in clinical skills and knowledge – you have a high level of "book" knowledge, and were successful at the primary exam on your first attempt. However, in clinical practice, the DEMT feels you are overconfident and have made significant management decisions without consulting seniors, which have threatened patient safety.
2. Professionalism – you have had complaints from nursing staff about being rude and condescending in clinical interactions.

You do not really understand the DEMT's assessment and have left that meeting feeling somewhat angry and frustrated. You have a degree of lack of insight in to the situation. The DEMT's concerns are actually valid, however you don't really understand the 'rationale' for their concerns. You think you are being unfairly targeted. You feel that you have been working really hard and generally turnover more patients than the other Reg's without having to 'check everything' with a Consultant – you thought that's what registrars were supposed to do? Now you feel you are being criticised for working hard?? You are glad at the chance to meet with your mentor and get them to see your side of the story.

Background Information

You have spent the last 2 years working in a regional hospital about 200kms from the city tertiary hospital where you are now employed.

Working in this small ED there were only 4 FACEMS on staff and the workforce was quite variable. You were often the senior doctor on shift in the evenings and nights and you felt comfortable in this role. The feedback from the senior staff was always very good. During this time, you submitted structured references and completed your provisional training time. You studied hard independently for the Primary Exam and successfully completed it on your first attempt.

You had never worked in a tertiary ED before but felt it wouldn't be an issue as you were used to working independently and making your own decisions – indeed you had been told you were working at a high level by your last DEMT. You feel confident and believe that you are more capable than most trainees at your level because of your experience working independently.

Since starting your current job 6 weeks ago you have felt you have been doing a good job. You have been a little frustrated that you haven't been given the freedom to work independently, feeling that having consultants and nurses check what you are doing "all the time" is unnecessary. You do accept that the patient complexity is higher that you have been used to. For example, dealing with unwell oncology and transplant patients is new to you but you think "pneumonia is pneumonia" and you don't need have your hand held to manage that.

DEMT Meeting

Your DEMT met with you to discuss some issues stemming from two incidents. Your recollections of them are as follows:

1. You saw a 22 year-old patient with cystic fibrosis that presented with cough and chest pain. They had normal temperature and vital signs and did not look unwell. You felt that investigations weren't warranted given the patient looked well and so discharged them home with a diagnosis of LRTI. You made sure they had a follow up appointment with the GP within the next few days. It turns out the patient had a pneumothorax which required drainage via a small bore tube and the patient was admitted to the Respiratory Unit. The DEMT felt that the issues here were twofold:

- That you should have been more broad thinking in your differential diagnosis in a patient with cystic fibrosis and that better knowledge of the condition and its complications would have prevented you from missing the diagnosis.
- You could have sought senior input into the case given there was a consultant present on the floor supervising the area you were working in.

2. The DEMT made you aware of a complaint from a senior nurse about you being rude. You were managing a patient with chest pain who had a significant history of ischaemic heart disease. He had an abnormal ECG but was pain free at the time. The senior nurse was asking about the findings on his ECG. You felt like she was trying to test your knowledge. You felt like this was not appropriate and she was challenging your ability to manage the patient. You do remember telling her off, *'Why don't you let me worry about the ECG, you worry about getting the medications I've charted.'*

You feel that in both of those instances you have been dealt with harshly. You don't believe your knowledge needs particular improvement, you feel you know more than most trainees at your level.

You accept you made a mistake by not doing a chest Xray but dismiss this as *'an easy decision with the benefit of hindsight'*. You think (mistakenly) that *'most other trainees would make a similar decision to you to send the patient home'*. You feel that you did the right thing *'by treating the patient, not the test result'* as you felt the patient was well and could be sent home. You also say *'and other consultants tell us that we shouldn't do so many tests and use our judgement …. I thought I was doing that.'*

With regard to the nursing interaction, you don't see why you should have to change your behaviour *'just to keep the nurses happy'*. You feel that it wasn't the role of the nurse to question you about the ECG findings. You communicate this in a 'frustrated way' as opposed to an 'anti-nurse' or 'arrogant' way. If the candidate probes you about this or explains the importance (patient safety etc.) of experienced nurses being able to ask you questions you will admit something like *'I think I was feeling frustrated that I was constantly being checked, that people were not trusting my work.. I just snapped at her… I probably shouldn't have….'*. The DEMT explained that this department was staffed by a high quality and motivated nursing staff, who take great interest in patient care. You accept this but say that *'the nurses here are good…. But sometimes I feel they are targeting me as "the new registrar".'* Overall you are receptive to a candidate who effectively addresses the importance of good Doctor-Nurse relations for patient outcomes and a functional/enjoyable workplace.

The summary of the DEMTs meeting were as outlined above:

1. Overconfidence
2. Poor interaction with nursing staff

The DEMT made the following plan, which you agreed to partly because you felt you have no choice:

1. You will run all patients by a consultant or senior registrar and when on night shift you would be paired with a more experienced registrar.
2. You would make an effort to be more courteous in your interactions with nursing staff.
3. Both of these would be monitored over the next 6 weeks until your next ITA is due. The need for ongoing monitoring would be reviewed then.
4. It was suggested you meet with your allocated mentor to discuss the DEMT meeting and how you are adjusting to the department.

Personal Issues (only give this information if directly asked)

You are married and your relationship is under pressure. You had to move to the city to continue your training but your wife is missing her family and friends. Your wife has had a tough time adjusting and finding work. You are renting close to the hospital, which is convenient to you, but it is not a very exciting place to live. This has been making you feel stressed at work.

You do not have any kids, but plan to have a family in the future

You drink alcohol: wine - a glass with dinner most nights and more if you go out on your days off. You don't drink to excess.

You don't smoke or take illicit drugs.

You have a brother and your parents who are all well and live in the city where you live – you have a good relationship with them.

What You Want From This Interaction

You want to "vent" about the issues raised by the DEMT and give your side of the story. You think your mentor will side with you.

You are looking for reassurance that you are doing a good job.

You want to know if you are going to fail your term and if there is anything your mentor can do to prevent this from happening (like talk to your DEMT for you)

The candidate should address these concerns. It is not expected that the candidate will automatically side with you especially as your performance and behaviour do need modification. However, the candidate should be supportive in their role as your mentor. A good candidate will be supportive but also attempt to bring you around to the DEMT's point of view. If they do not attempt to do that you may become more belligerent and use language that shows your lack of insight more clearly.

Specific prompts you should use are:

- *'Do you think the DEMTs assessment is fair?'*
- *'Can you speak to the DEMT to put in a good word for me?'*
- *'How do you think I can improve my performance?'*
- *'What would you suggest I do to improve my performance?'*

The tasks of the candidate are to:

- Meet with you and discuss the issues raised by the DEMT
- Explore your understanding of the outcome of the DEMT meeting
- Provide support and guidance to you as your mentor

This OSCE will assess the following domains:

- Professionalism
- Communication

The examiners are not expected to interact with the candidate, other than to redirect them to the task if required. The marking sheet includes details in each domain, which may assist you in understanding how the candidate will be assessed.

4. EXAMINER INSTRUCTIONS

In this OSCE station the candidate will be assuming the role of a FACEM in a tertiary ED who is the mentor of an underperforming ACEM trainee.

The trainee is new to the department and has only recently commenced Advanced Training. A role player will play the trainee.

The trainee has already had a meeting with the DEMT in which the following issues were raised:

1. Over confidence in clinical skills and knowledge – the trainee has high level of "book" knowledge, was successful at the primary exam on their first attempt. However, in clinical practice, trainee appears overconfident and has made significant management decisions without consulting seniors that have threatened patient safety.
2. Professionalism – the trainee has had complaints from nursing staff about being rude and condescending in clinical interactions.

The DEMT has asked the candidate to meet with the trainee following their discussion.

Key Actions Expected from Candidate

- Meet with the trainee and discuss the issues raised by the DEMT
- Explore the trainee's understanding of the outcome of the DEMT meeting
- Provide support and guidance as the trainee's mentor

This OSCE will assess the following domains:

- Professionalism
- Communication

You are not expected to interact with the candidate, other than to redirect them to the task if required.

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 12

CANDIDATE barcode

EXAMINER 1 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:							
Communication	○	○	○	○	○	○	○
Professionalism	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Communication	• Introduces self appropriately • Establishes rapport • **Confidentiality** • **Seeks further information from trainee regarding the meeting with the DEMT/and outcome** • Use active listening to explore trainee's concerns • Uses appropriate non-verbal and verbal communication • Explores trainee's insight • Able to use communication skills to resolve difficult situation – perceived conflict between trainee's and DEMT's views of trainee's performance • **Demonstrate the ability to reach a negotiated understanding of the trainee's situation with respect to the plan put in place by the DEMT** • Provide constructive feedback on how the trainee can achieve the desired outcome of improved performance and successful completion of the term
Professionalism	• **Candidate should highlight the high standards of practice demanded by the DEMT** • **Helps 'reframe' trainee's understanding of rationale for DEMT plan into a positive one** • **Act as a mentor – give feedback, encourage reflection, provide support, constructively challenge, facilitate insight.** • **Demonstrate willingness to support the trainee in achieving the performance goals set by the DEMT** • **Encourage the trainee to behave professionally in interactions with nursing staff and colleagues** • **Seek factors (e.g. drugs, alcohol, relationship, financial) which may suggest an impaired practitioner** • Encourage trainee to reflect on work life balance and promote these values • Seek to identify strategies trainee may use to deal with challenging workplace situations (e.g. high complexity patient, difficult interpersonal interactions)

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 12

INFORMATION

Station Summary: The candidate is a mentor to a new trainee, and has been informed by a DEMT colleague that there are some performance issues with the trainee, in relation to over-confidence in clinical skills and knowledge, and professionalism. The candidate will meet with the trainee as their mentor to provide support and guidance, discuss the issues raised by the DEMT, and explore the trainee's understanding of the outcome of the DEMT meeting.

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.

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 13
AIRWAY SKILLS

1. STATION SUMMARY

Correct demonstration of anatomy, preparations and procedure for emergency cricothoidotomy and safe approach to anticipated difficult airway.

Correct explanation of indications for emergency cricothyroidomy and example e.g. airway burns (can't intubate, can't ventilate).

2. CANDIDATE INSTRUCTIONS

You are a FACEM at a tertiary teaching hospital.

One of your registrars will be seconded next term to a rural hospital ED.

The registrar is concerned that they be working alone at night and, despite having competent airway skills, they have never performed a surgical airway. They have an awareness of the different approaches to cricothyroidotomy.

Your tasks are to:

- Teach the registrar how to perform an emergency cricothyroidotomy on a task trainer using the equipment in the room. You are only required to teach 1 approach. (should be 5 minutes maximum)
- Discuss with the registrar how you would approach a situation where emergency intubation is required and you anticipate there is a high chance of a cricothyroidotomy being required (approximately 2 minutes)

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

3. ROLE-PLAYER INSTRUCTIONS

You are an Advanced Trainee working in the emergency department (ED) of a tertiary teaching hospital. You will be seconded next term to a rural hospital ED.

You are concerned that during the secondment you may work alone on night shifts and despite having competent airway skills, you have no experience with surgical airways. You have been shown how to do both a surgical (blade-based) and percutaneous technique in the past but cannot remember the details.

You are a conscientious trainee and are keen to learn how to perform an emergency cricothyroidotomy.

The candidate's task is to:

- Teach you (the ED registrar) how to perform an emergency cricothyroidotomy on a task trainer using the equipment in the room. (5 minutes) The main aim is to assess their ability to competently perform the procedure (the candidate can select which one they prefer to teach) and describe the key elements to you as the go. They should only have 5 minutes to do this so it is important that you 'move them through it' and encourage them to *'show me how you do it and tell me what you are doing as you go'.*
- Outline how to approach the situation where emergency intubation is required and there is a high chance of a cricothyroidotomy being required = the anticipated difficult airway (2 minutes).

  The candidate must clearly describe a 'safe' approach to the intubation of a patient with a high chance of failure requiring cricothyroidotomy. There are a number of acceptable responses.

Specific instructions/prompts are on the page/s that follow.

Cricothyroidotomy Demonstration / Teaching: (should be completed in 5 minutes)

- You are aware that there are surgical and percutaneous approaches – you have seen them demonstrated a few years ago but cannot remember the details.
- Ask the candidate to demonstrate the technique they prefer (the candidate can select which one they prefer to teach) and talk you through the key steps as they go. The candidates must outline the following keys aspects. If they are not providing the following information then ask clarifying questions at the appropriate time to minimise interrupting their flow or procedure.
  - Anatomical landmarks. Ask the following if required:
    - *'How do I find the right place?'*
    - *'What if the anatomy is difficult or there is swelling?'*
    - The candidate should be able to identify the landmarks for the cricothyroid membrane including the thyroid cartilage, cricoid cartilage and Cricothyroid membrane between the 2
  - Procedural steps for surgical cricothyroidotomy
    - Ask clarification if any step is not clear
    - Scalpel through skin and CT memb (can be horizontal or vertical)
    - Dilate with forceps
    - Insert Bougie or ETT
    - Confirm placement (capnography) and clinical
  - Troubleshooting
    - *'What might go wrong?'*: bleeding/ false passage etc
    - *'What if I am having trouble getting the tube in through the skin?'*: larger skin incision/ forceps/ pre-dilation
  - Tube position confirmation/securing
    - *'How do I confirm it is in?'*
    - *'How to secure it?'*

Anticipated Difficult Airway: (approximately 2 minutes)

Ask them *'Can you talk me through how you would approach the situation where you need to perform urgent intubation and you think there is a high chance of needing to do a cricothyroidotomy?'*.

- If they suggest calling for help etc. say *'When there is no one else but ED staff and you need to intubate now'… 'airway swelling or a burn or something'*

Candidate must outline key aspects (may be in any order) of safe decision making. Trouble-shooting. Ask the following prompts as required (minimise interruptions):

- Patient preparation: Optimal pre-oxygenation, sitting up, neck preparation including landmarks, ?LA.
  - *'What position would you have them in?'* If they suggest lying flat ask *'If their airway's threatened won't they want to sit up?'*
- Equipment preparation: Difficult airway equipment + cricothyroidotomy equipment laid out ready
- Approach to intubation
  - RSI + 1 best go
    - Should describe 'difficult airway technique': optimal position patient position + Bougie/laryngeal manipulation or videoscope
    - May describe intubating LMA/use for ongoing ventilation
    - *'I was wondering about paralysing them if I though the tube was going to be hard'*
  - Sedation and have a look (+/- LA) 1st
    - *'What if you can't see anything?'*
  - Primary cricothyrotomy under LA (+/- sedation)
    - *'Why would you do that?'*
- Decision of when to proceed to cricothyroidotomy if initial attempt at intubation fails: ask *'If I don't get the tube in 1st go?'* (may not be relevant depending on approach)
  - Must say definite indication for surgical airway is *'Can't intubate and can't ventilate'*
    - And give one example such as *'airway swelling due to airway burns or anaphylaxis'*
  - If able to ventilate: may describe alternate approaches
    - Ask *'How many goes before I should go for the cric?'*
  - o If unable to ventilate → immediate
    - *'If I can't ventilate?'*

4. EXAMINER INSTRUCTIONS

This OSCE assesses the ability of the candidate to perform/teach an emergency cricothyroidotomy on a task trainer to an emergency medicine advanced trainee (a role player).

The equipment to perform an emergency cricothyroidotomy will be in the room.

1. Surgical equipment (scalpel/forceps/bougie/size 6 ETT)
2. Cuffed 6 mm Seldinger cricothyrotomy kit (Cook/ Melker)

The candidate's tasks are to:

- Teach the ED registrar how to perform an emergency cricothyroidotomy on a task trainer using the equipment in the room. (approximately 5 minutes)

  The main aim is to assess their ability to competently perform the procedure (the candidate can select which one they prefer to teach) and describe the key elements to you as they go. They should only have 5 minutes to do this; the RP will prompt them to *'show me how you do it and tell me what you are doing as you go'.*

- Outline how to approach the situation where emergency intubation is required and there is a high chance of a cricothyroidotomy being required (= the anticipated difficult airway). (approximately 2 minutes)

  The candidate must clearly describe a 'safe' approach to the intubation of a patient with a high chance of failure requiring cricothyroidotomy. There are a number of acceptable responses.

  I guess a key issue is when do they lie the patient down to do the cricothyroidotomy? If they are going to try to intubate them first (as most would), it may be reasonable to use thio/sux or just propofol/fentanyl for rapid induction and then be ready with all equipment to go on and do the cric if they fail to intubate and can't ventilate.

  I don't think a "needle" cric will be sufficient to ventilate the patient, so maybe the registrar has to insist the FACEM teaches them the scalpel, dilator, bougie and ETT technique?

This OSCE will assess the following domains:

- Medical Expertise
- Scholarship & Teaching

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 13

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	○	○	○	○	○	○	○
Teaching	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Medical Expertise	• PPE – pre, during & post procedure
	• **Procedure demonstration – correct anatomy / landmarks for an emergency cricothyroidotomy**
	  ○ **Competent surgical cricothyroidotomy (descriptor to be given for examiners) OR**
	  ○ **Competent Seldinger cricothyroidotomy**
	• Confirm correct position / successful placement – can answer registrar questions re the same
	• Complications/ troubleshooting
	• **Safe approach to anticipated difficult airway**
	  ○ **Approach to intubation: LA/sedation/RSI induction**
	  ○ **Patient optimization: Preoxygenation/ positioning**
	  ○ **Appropriate preparation for Surgical airway: equipment, patient, operator**
	  ○ **Decision making re cricothyroidotomy (timing etc)**

Scholarship and Teaching	• Teaching goals set + structured approach • What? What is an emergency cricothyroidotomy? • How? Demonstrates/ describes how it is performed. • Why? Outlines the situations why /when an emergency cricothyroidotomy may be performed • Can't intubate and can't ventilate e.g. airways burns or oedema e.g. anaphylaxis • Clarifies understanding • Answers registrar questions • Summary at end

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 13

INFORMATION

Station Summary: Correct demonstration of anatomy, preparations and procedure for emergency cricothoidotomy and safe approach to anticipated difficult airway.

Correct explanation of indications for emergency cricothyroidomy and example e.g. airway burns (can't intubate, can't ventilate).

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:

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**

STATION 14
MANAGEMENT OF PAEDIATRIC GASTROENTERITIS

1. STATION SUMMARY

Helen, aged 4, with an uncomplicated case of paediatric infectious gastroenteritis with nausea, vomiting and diarrhoea, and decreased oral intake.

The Registrar who has assessed Helen has asked for senior help in speaking with Helen's parent. Her parent is extremely concerned about their daughter and has not been reassured with the Registrar's assessment or plan.

The discussion will be with the candidate and the parent, occurring in the relative's room away from the treatment area. The Registrar will not be present.

Candidates should step through the parent's concerns: particularly what is gastroenteritis, how it is best managed, what are the risks of the disease and management. The parent will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.

2. CANDIDATE INSTRUCTIONS

David, one of your capable Registrars, has approached you asking for your assistance with an anxious parent, Mrs Wendy Smith. He feels she is not assured with his assessment and management plan for her daughter, Helen.

The patient, Helen, is a previously well 4 year-old girl, who has had nausea, vomiting and diarrhoea for 4 days; just 1 week after her playgroup friend was unwell with a similar illness. Her mother (Wendy) is concerned about the prolonged course and that Helen is tired, listless, sleeping a lot and still not keen to drink much fluid.

Your Registrar's summary of her presentation is:

- 4 year-old girl, fully immunised (following an initial deliberation and concern regarding safety profile), with no other past medical history and no siblings.
- HR 120/minute and regular, BP 110/60, RR 24, T 37.7^{o}C, dry mouth, sunken eyes, capillary refill 3 secs.
- Mild generalised abdominal tenderness (No focal tenderness of note), but no guarding or rebound, bowel sounds active.
- Full Ward Test urine- trace of ketones only

You have reviewed the patient and agree with your registrar's provisional diagnosis of gastroenteritis, and his assessment that it would be appropriate to consider discharge after a successful period of rehydration.

Your tasks are to:

- See Mrs Smith in the relative's room
- Explain your assessment of Helen's illness
- Develop an appropriate management and disposition plan
- Address any concerns Wendy (mother) may have

Neither the patient (Helen), nor your registrar will be present in this OSCE.

This OSCE will assess the following domains:

- Communication
- Medical Expertise

3. ROLE-PLAYER INSTRUCTIONS

Can be played by female actor (Wendy) or male actor (Carl).

Your role is to be very anxious and concerned for your daughter. You have two main concerns. Firstly, that she has a serious illness that may cause her harm as she has never been sick like this before, and secondly that you make the right decision about further treatment out of the different options that are being presented to you.

You are worried both about having active "drug" treatments and invasive procedures, but also about not doing something that is needed, which could be even worse.

You are willing to take your daughter home eventually if she were better, but that seems a long way from her current state!

You have NOT been filled with confidence by the Registrar, David, who seemed indecisive about the treatment plan. He discussed a number of options regarding rehydration, but you were flustered and don't remember the details. You need explanation and reassurance on every point, especially regarding potential risk. The doctor should realise this and slowly step you through an explanation of what is wrong, what can be done about it with medication, and particularly how to help Helen get enough fluids to be well.

You are very concerned for your daughter, and feel anxious about making any decision which could lead to harm to your daughter. You would feel very responsible for this. Your spouse, with whom you would ideally share this decision, is away, interstate, for work.

Helen has not had any major illnesses. You take her to the GP once a year, but otherwise avoid doctors as much as possible. You tend to prefer a natural approach to health and avoid medications as much as possible. However, you try to be sensible. Helen's vaccinations are up to date.

You think it will help you if you understand what is happening to your daughter. You want to be reassured by a confident doctor who knows what they are doing and sound like they do. <u>You need the following information provided/questions answered.</u> Good candidates will provide much of this information without you having to ask – try to allow them the opportunity to do so and only ask the questions if they fail to do so.

You can wind back the anxiety if you feel reassured during their explanations.

'Thank you for seeing me doctor. I just want to understand what is happening to Helen. Why is she sick? What can be done to make her better?'

<u>*About the infection:*</u>

- *'Why has Helen got this?'*
- *'Is there anything I could have done to protect her?'*
- *'Is the daycare to blame?'*

<u>*About the diarrhoea:*</u>

- If asked, the diarrhoea is just watery brown spray, not frothy or floaty. No blood.
- *'Is there anything to stop the diarrhoea?'*
- *'She just keeps getting diarrhoea whenever she eats'*
- *'Are there treatments to stop the diarrhoea? Are there natural options?'*
- *'I'm generally against them, but should she actually have antibiotics for this?'*

<u>*About the vomiting:*</u>

- If asked, the vomiting is just clear to yellowish fluid, not black, blood stained or dark green.
- *'She vomits straight away, even though she's thirsty. How will she keep enough down?'*
- *'Is there something we can give her to stop the vomiting?'*
  (Options ideally Ondansetron 4 mg – "a wafer/ tablet that dissolves"

Other drugs have more side effects e.g. Maxolon (Metoclopramide), Stemetil (Prochlorperazine), Phenergan (Promethazine)

If given a drug, regardless of option, ask *'Is that drug safe for her? Could she have any side effects?'*

Rehydration options: (should be stepped through)

1. Oral Rehydration:
    a. Doctor should be very specific
    b. Teaspoon or 0.5 mls/kg per 5 minutes oral rehydration solution
    c. 5 minute rest, keep pushing
    d. Consider hydralyte iceblock
    e. Small volumes, frequently gives absorption
    f. Small vomits not a disaster

    Ask clarifying questions if the above is not clear particularly 1) how much; 2) how often; 3) what to do if she vomits (i.e. try to continue if a small vomit)

    Then say *'I could try, but she wouldn't take anything at home… Is there a better way?'*

    They may suggest antiemetic (antivomiting drug described above). You are not confident.

2. Nasogastric tube and oral hydration fluid:

    The doctor should explain what this is, and how it is done. If they don't give an explanation of the following, consider asking:
    - *'Is that painful?'*
    - *'Won't she just vomit around the tube?'*
    - *'How long would it be in for?'*
    - *'What do you put in it?'*

    You remain unconvinced. *'What else could we try?'*

    If necessary, ask *'What about a drip? Does she need a drip?*'

3. Third line should be discussion re intravenous drip and fluids

    This should NOT be first line treatment. If it is, the response should be 'Does she really need that? That seems cruel.'

    If this is given third line, then the question should be '*Does she need that?' 'Is it safe? 'What are the risks?*'

Note: At approximately 5 minutes, there needs to be a discussion re likely time frame for management and disposition decisions. The Examiners can work out a time reminder signal with you.

Ask *'If we are doing one of these options, how long is Helen likely to be here?*'

- Should explain that will be a period of 4-6 hours in ED/ observation area/ Paeds Ward

You also need the following information provided – ask if needed.

- *'When will she be well enough to go home? How will we tell?'*
    - Will have tolerated rehydration and also then been able to tolerate oral fluids
    - Will be improved: returning towards normal level of activity
    - Candidate should indicate that if she is not improved/if you (the parent) not happy, then further observation will occur
- *'How do I manage her at home?'*
    - Frequent oral fluids
    - Reintroduction of food as tolerated

      Ask *'When do I start feeding her again?'* and *'What should I feed her?*'

Treatment Plan:

A shared decision re treatment plan should be made. If the candidate has made a recommendation for one particular approach that makes sense to you, then feel free to agree to it.

If it doesn't make sense to you, feel free to ask, *'Why do you suggest that?*'

If they ask you for your preference, then you decide that you would like to try oral hydration after ondansetron, with a second line treatment being intravenous fluid rather than nasogastric.

(For the good candidates, if there is time they should be able to guide you through the likely timeframe of improvement and recovery instructions once discharged.)

4. EXAMINER INSTRUCTIONS

The pre-reading presents the candidate having assessed Helen, aged 4, with an uncomplicated case of paediatric infectious gastroenteritis with nausea, vomiting and diarrhoea, and decreased oral intake.

The Registrar who has assessed Helen has asked for senior help in speaking with Helen's mother, Wendy. Wendy is extremely concerned about her daughter and has not been reassured with the Registrar's assessment or plan.

The discussion will be with the candidate and Wendy (mother), occurring in the relative's room away from the treatment area. The Registrar will not be present.

Candidates should step through Wendy's concerns: particularly what is gastroenteritis, how it is best managed, what are the risks of the disease and management. Wendy will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.

This OSCE will assess the following domains:

- Communication
- Medical Expertise

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 14

CANDIDATE barcode

EXAMINER 1 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:							
Communication	○	○	○	○	○	○	○
Medical Expertise	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Communication

- **Introduce self, establish rapport with parent**
- Open question's, genuine inquiry, elucidate the issues
- **Explanations at the appropriate level. Little medical jargon**
- **'Shared decision making' approach to rehydration options**
- Not patronising, no disrespecting a parent in an unfamiliar situation.
- Good summation and "next actions" plan to conclude

Medical Expertise

- Understandable explanation of gastroenteritis pathophysiology
- **Not talked into further Ix**
- Benefit of anti-emetics, safety profile: use of oral ondansetron wafer (4mg for 15-30kg)
- **NO need for antibiotics – with understandable explanations**
- **Discussion of oral and at least one other**
  - **Oral**
    - best, safest but labour and time intensive and user dependent
    - ideally hydralite(TM) or equivalent 10-20ml/kg/hr (200-400mls)
    - low sugar fluids (fruit juice 1:4, lemonade 1:4, cordial 1:8, sugar 1tsp:1cup)
    - early solids as tolerated improves resolution – don't stop because of diarrhoea!
  - NasoGastric
    - RCH preferred over I.V.
    - rapid protocol 25ml/kg up to 300ml/hr for 6 hours
    - slow protocol 24 hours
  - I.V. rehydration
    - 3rd line from RCH if N/G fails
    - Saline until "shock" corrected
    - ideally maintenance plus deficit over 6 hours with plasmalyte+dextrose
  - Flexibility to go with what works for mother and child.
- **Appropriate observation in E.D. then follow up plan, ED or GP**
  - Success of rehydration: behavior, obs, tolerating oral fluids
  - Advice re fluids/ reintroduction food

Page 1 of 2 (please turn over)

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 14

INFORMATION

Station Summary:

- Helen, aged 4, with an uncomplicated case of paediatric infectious gastroenteritis with nausea, vomiting and diarrhoea, and decreased oral intake.
- The Registrar who has assessed Helen has asked for senior help in speaking with Helen's parent. Her parent is extremely concerned about their daughter and has not been reassured with the Registrar's assessment or plan.
- The discussion will be with the Candidate and the parent, occurring in the relative's room away from the treatment area. The Registrar will NOT be present.
- Candidates should step through the parent's concerns: particularly what is gastroenteritis, how is it best managed, what are the risks of the disease and management. The parent will have to be reassured of medication safety (if offered), and will try to understand the risks and benefits of the options of rehydration via oral, nasogastric and intravenous routes, before making a shared decision for an appropriate approach, with a view to discharge if successful.
  The OSCE will assess the following domains: Communication, Medical Expertise

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

Page 2 of 2 **(end of form)**

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°; SpO_2 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 x 10^9/L	(140 to 400)
WCC	9.0 x 10^9/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

CANDIDATE barcode

EXAMINER 1 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

Medical Expertise

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: ThrombinTtime 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.

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.

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 15

INFORMATION

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.

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:

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	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

Page 2 of 2 **(end of form)**

STATION 16
END OF LIFE CARE

1. STATION SUMMARY

The patient is an 86 year old lady who has been living in a nursing home for the last 10 years. She has severe dementia and is unable to communicate. She has had a number of admissions to hospital in the last 6 months with aspiration pneumonia. She is now drowsy. Initial observations: P 110, BP 120/70, T 39.0 RR 15 SpO2 85% room air. Drowsy, not speaking. The Candidates clinical impression is that it would be most appropriate for the patient to be managed with palliative care in the nursing home with the expectation that she will die in the next few days. The candidate is the treating doctor and their task is to discuss the proposed management with the patient's only daughter.

2. CANDIDATE INSTRUCTIONS

You are the Consultant on duty. You have completed your assessment of an 86-year-old lady who has been living in a nursing home with high level/ hospital-level care for the last 10 years. She has severe dementia and is unable to communicate. She has had a number of admissions to your hospital in the last 6 months with aspiration pneumonia.

She has presented with cough and increased drowsiness.

Initial observations:

P 110, BP 120/70, T 39.0

RR 26

SpO2 88% room air

Drowsy, not speaking

Your assessment is that she has another significant aspiration pneumonia. Your clinical opinion is that it would be most appropriate for the patient to be discharged for palliative care in the nursing home with the expectation that she will die in the next few days.

Your task is to:

- As the treating doctor, discuss your assessment and proposed management with the patient's only daughter

This OSCE will assess the following domains:

- Communication
- Health Advocacy
- Prioritisation and Decision Making

3. ROLE-PLAYER INSTRUCTIONS

Your Background

You are playing the role of Deborah, a 55 year-old lady. You are married with 2 grown children who have left home but live in the same city. Stephen is a 25 year-old mechanic, single but in a stable relationship with no children; Felicity is a 20 year-old studying arts, single, not in a relationship.

Your husband is a high school teacher who is teaching economics to year 11 and 12 students. He is happy and loves his work. You have a good relationship. You drink socially and do not smoke. You are quite active. You walk a lot and play social tennis. You are not working, but involved in a number of women's groups including craft groups where you are learning quilting and painting.

Your Mother

Your father has been dead for 10 years. He died suddenly after a severe stroke.

Your mother has been living in a nursing home since the death of your father. She has deteriorated over the last 10 years with dementia. She is now unable to communicate at all. She seems to recognise you when she is well, but it is difficult to be sure. She cannot eat without assistance and is spoon-fed by the staff in the nursing home. She is unable to walk and has to wear incontinence pants as she is incontinent of urine and faeces. You are her only child and hold EPOA (Enduring Power of Attorney) for health/other matters.

She has had a number of admissions to hospital in recent months with pneumonia. She has been quite sick but has always recovered. During one of the recent admissions it was suggested that a tube could be put in to her stomach via a small incision to assist with feeding, but you did not want that done because it seemed 'invasive' and she got better. 'End-Of-Life' care was not raised during the recent admissions however you were told several times that she might die.

Now your mother has been taken to hospital by ambulance again. She has a fever and a cough and is quite breathless. She is drowsy but does not appear distressed. The doctor has decided that your mother has severe pneumonia (chest infection) again and that she is likely to die in the next few days.

The Medical Position

The doctor feels that the most appropriate care at this stage would be to give her medications to 'keep her comfortable' and accept that your mother is dying and the time has come to avoid non-beneficial medical intervention. Medications will most likely include morphine as an analgesic as needed. The candidate (the doctor) is required to talk to you about the most appropriate care for your mother, including your feelings around the option to send your mother back to the nursing home where she will most likely die in the next few days. It is appropriate to discharge your mother for reasons including:

- It appears likely that she will die with or without treatment
- There is no obligation to provide treatment to patients that is not likely to alter the outcome or are not beneficial. Treatments may be invasive/painful. Aggressive non-beneficial care is not good medical practice.
- It should be possible to provide high quality end-of-life care in her Nursing home with Nursing care, analgesia, sedation etc.
- Patients often prefer to die in a 'familiar' environment where they know people
- Elderly patients often have recurrent admissions in the last weeks to months of their life – aggressive treatment is often not what they/others would want
- Hospital beds/treatments are a 'resource' that should be used appropriately where they can provide a benefit or difference to patients
- It may not be in keeping with the patients prior wishes: many people would not like to have ongoing treatment when they reach the point of having a poor quality of life (i.e. being bedbound/dependent/with dementia)

Good medical practice would be for the Doctor to explain their rationale to you and seek your opinion/agreement, seek some understanding of what your mother would want (were she able to speak for herself) – it would be unlikely to occur if you are not supportive. They need to discuss with you/establish an approach towards:

- return to the Nursing home for end of life care
- how to ensure that quality end of life care is delivered
- other relevant decisions e.g. use of antibiotics/fluids etc.

Your Position

You have seen your mother in recent admissions rapidly improve despite being 'quite sick' and being told previously that the outlook was not good. You expect her to recover again and your initial thought is that you 'want everything done' or 'the same treatment as last time'. On reflection and discussion with an empathetic Doctor who seems motivated to do 'what is right for your mother' and is focused on her comfort you reflect and decide that actually your mother wouldn't like to continue like this and neither would you. Her comfort is what is important and a 'well managed comfortable death at her Nursing Home where she knows people' would be preferable to her and to you.

If the candidate is caring and compassionate and explains the situation clearly and well, then you should accept their explanation and accept that palliative care (allowing your mother to die peacefully and with dignity) is appropriate but if their explanation makes you angry then you should become upset/distressed.

- If you feel that the candidate's primary focus is expediency and not wanting 'to use resources/a hospital bed' you will become resistant. The same 'content' delivered with explanation/empathy and a focus on your mother's comfort and what she would want will be received positively

Once you have accepted the idea of your mother returning to the Nursing Home to die you have a number of practical questions that require answers:

- *'How long will she last?' 'What will the 'end' be like?'*
- *'What about antibiotics … that's what she had last time?'*
- *'If she is not eating/drinking then doesn't she need IV fluids? I don't want her to be thirsty or uncomfortable.'*

Motivation is mother's comfort – if the above explanations are reassuring then you accept them and ask:

- *'What needs to happen from here?'* (to make the plan work)

4. EXAMINER INSTRUCTIONS

The patient is an 86 year-old lady who has been living in a nursing home for the last 10 years. She has severe dementia and is unable to communicate. She has had a number of admissions to hospital in the last 6 months with aspiration pneumonia.

She has now presented drowsy, not speaking, with another episode of pneumonia

Initial observations: P 110, BP 120/70, T 39.0, RR 15, SpO2 88% room air.

The candidate's clinical opinion is that it would be most appropriate for the patient to be managed with palliative care in the nursing home with the expectation that she will die in the next few days. The candidate is the treating doctor and their task is to discuss the proposed management plan with the patient's only daughter.

Key Actions Expected from Candidate

It is expected that the candidate will introduce themselves, explain the current situation, make an effort to assess the level of functioning of the patient and the patient's likely wishes / the daughter's understanding and wishes, and then discuss the benefits of palliative care of the patient in the nursing home, the aims of care and the expected outcome, in a caring and compassionate manner.

This OSCE will assess the following domains:

- Communication:
  - Demonstrate a broad range of communication strategies to facilitate discussions around sensitive issues with patients, families and other staff.
- Health Advocacy
  - Assess the impact of an acute illness or injury on the chronic state of a patient, and identify when the goals of emergency care should become palliative.
  - Decide on appropriate goals of care and limitation of medical treatment for a dying patient.
- Prioritisation and Decision Making
  - Justify the recommendation to transfer a patient to another health care facility.
  - Specify the resources that will be required to address ongoing post-disposition patient needs.

You should not interact with either the candidate or the role-player during the OSCE.

Examiner Mark Sheet

CONFIDENTIAL Examiner Rating: OSCE 16

CANDIDATE barcode

EXAMINER 1 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.

Please rate ALL the following domains:

	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
Prioritisation and Decision Making	○	○	○	○	○	○	○
Communication	○	○	○	○	○	○	○
Health Advocacy	○	○	○	○	○	○	○

Detailed assessment criteria

Please use the following criteria to inform your ratings above

Prioritisation and Decision making	• **Justifies the recommendation to transfer the patient back to the nursing home.** • Shows awareness of the resources required to address palliative care needs in the nursing home. • Recognizes that IV antibiotics/ IV fluids offer little benefit (symptoms/otherwise)
Communication	• Candidate introduces themselves + makes appropriate opening statement • Checks if there is a friend or relative who can come to support them/offer support of ED social worker • **Uses appropriate language to explain the current situation to the daughter clearly and communicates that the mother is seriously ill and likely to die.** • **Explains why most appropriate plan to return patient to nursing home to die peacefully in familiar surroundings/surrounded by staff and family known to her.** • Explains that further medical interventions would be futile, prolong suffering, not lead to recovery • **Candidate needs to give role player opportunity to express her concerns / issues, gain rapport, provide appropriate empathy.** • Uses skills to support/ deescalate/ resolve issues.
Health Advocacy	▪ Assesses the impact of an acute illness or injury on the chronic state of a patient, and identifies that in this case the treatment provided should be palliative. ▪ **Decide on appropriate goals of care and appropriate medical treatment for a dying patient and explains these to the daughter** ▪ **Patient focused: what patient would want/ patient comfort** ▪ Awareness of 'needs of NOK' in End-of-life situations ▪ Awareness of appropriate use of health care resource

Page 1 of 2 **(please turn over)**

Examiner Mark Sheet (cont')

CONFIDENTIAL Examiner Rating: OSCE 16

INFORMATION

Station Summary: The patient is an 86 year old lady who has been living in a nursing home for the last 10 years. She has severe dementia and is unable to communicate. She has had a number of admissions to hospital in the last 6 months with aspiration pneumonia. She is now drowsy. Initial observations: P 110, BP 120/70, T 39.0 RR 15 SpO2 85% room air. Drowsy, not speaking. The Candidates clinical impression is that it would be most appropriate for the patient to be managed with palliative care in the nursing home with the expectation that she will die in the next few days. The candidate is the treating doctor and their task is to discuss the proposed management with the patient's only daughter.

EXAMINER NOTES (For examiner reference only)

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GLOBAL RATING FOR STANDARD SETTING:

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

EXAMINER SIGNATURE:

OSCE 1

Page 2 of 2 **(end of form)**