
Station Number Six: Structured case based discussion

Candidate instructions

This is a 7 minute standardised case base discussion

You will be interacting directly with an examiner. You will be asked to outline your assessment and management to the following clinical situation. Further information will be provided as the case evolves. The examiner will be assessing your medical knowledge, as well as the reasoning and rationale to your approach and decisions.

Please be as specific as possible when answering. You are an emergency consultant in a tertiary level hospital. For example, when discussing drugs describe doses, when discussing investigation or management provide reasons why you chose that approach.

Case Information:

You receive a pre-notification that a 48 year male is being brought to your Emergency department. He is acutely agitated and possibly substance affected, with evidence of intravenous drug use identified at his residence. The ambulance crew have attended with police. He has a known forensic history, with previous incarceration for physical assault. He was aggressive on scene and they have been unable to obtain vital signs. He is a large and heavy set man who required several police officers to restrain him. He has been given 10mg IM Midazolam by paramedics and is being transported handcuffed in the police van. They are expected to arrive in 10 minutes.

Your tasks are to:

- Outline your initial assessment and management of this patient
 - Answer further questions about this patient presentation
-

You can ask for further clinical information as the case progresses including physical examination findings and investigation results. You may adjust your patient management according to new information.

This OSCE will assess the following domains:

- Medical expertise 60%
 - Assessment and Diagnosis 30%
 - Management 30%
- Prioritisation and decision making 40%
 - Assessing clinical risk

Examiner Instructions

The questions are to be delivered in the same manner to all candidates. If a candidate's response lacks clarity– then the lead examiner may probe further or ask the candidate to justify their decision making process.

Section 1: Initial assessment - minute 0-3

“Outline your initial assessment of this patient on their arrival to your ED”

This is a severely agitated patient who could have significant organic pathology, but may also pose a risk to staff safety. The candidate is expected to recognise this and outline a safe plan to assess the patient, prioritising the safety of staff whilst also performing a comprehensive patient assessment.

Assessment

Preparation/safety

- Staff safety is the priority
- Environment - appropriate resuscitation space to assess patient with physical restraints pre-applied to the trolley, monitoring ready to be applied
- Staff - security staff present in sufficient number, nursing staff
- Team - briefed, roles allocated. Appropriate PPE eg goggles/face shields in case of spitting
- Potentially drugs for chemical restraint drawn up prior to arrival
- If capsicum sprayed by police may need to be showered before entering the department

Assessment

- attempt non pharmacological deescalation, this patient may be too agitated for this to be effective or appropriate but this should be considered
 - May require immediate physical and chemical sedation in order for assessment to be possible in a safe way - appropriate plan for this should be outlined eg team approach to application of 4 point restraints followed immediately by chemical sedation eg IM droperidol
-

-
- After situational control priority should be to apply monitoring and assess ABC's especially airway patency after sedation, level of sedation
 - **Full set of vitals including temperature**
 - Then perform assessment for serious organic causes of agitation including
 - Head injury
 - Substance abuse and intoxication
 - Underlying mental illness
 - Hypoxia
 - Metabolic disturbances/ **Hypoglycaemia**
 - **CNS Infection**: meningitis, encephalitis, sepsis
 - Hyperthermia or hypothermia
 - Seizures: post ictal or status epilepticus
 - Vascular: stroke or subarachnoid haemorrhage
 - ECG, VBG and blood test to assess for above

Prompts:

“What are your priorities during the initial stages of this presentation?”

“How will you ensure staff safety during the assessment?”

“What medical causes for this patient presentation will you assess for?”

Section 2: Physical restraint - minute 3-4

“What are the principles of applying physical restraints in ED?”

- Local policy/guidelines should be consulted
- Local laws and mental health acts also need to be adhered to
- Last resort where patient presents an immediate threat to staff or themselves
- Must be accompanied by chemical sedation/calming medication
- Minimum possible time in restraints
- Patients in restraints must be closely observed and monitored
- Reasons and need for restraint should be continually reassessed and documented
- Risk to patient from restraints - deaths have occurred. Must not be in prone position and restraints must not restrict breathing

Prompt:

“Are there any risks to the patient from the use of physical restraints?”

Section 3: Ongoing management minute 4-6

“The patient remains somewhat agitated despite IM and IV sedation and still requires physical restraints and observation in a resuscitation cubicle. The bedside nurse asks you to review them as they have had a persistent tachycardia at 120bpm, BP of 87/50 and have now recorded a temperature of 38.5. Please outline your ongoing management”

Candidate needs to recognise that patient needs a full organic work-up and should detail how they would facilitate this in a safe manner. This should include intubation. Patient should promptly receive empiric antibiotics that will cover meningoencephalitis. Candidates should also recognise other differentials such as hyperthermic toxidrome (NMS, serotonin syndrome)

- Full septic screen: blood cultures, VBG for lactate, urine, CXR, CT brain & lumbar puncture, examine for source of sepsis. LP may be deferred but candidate should be able to discuss the pro's and con's of performing it in ED vs deferring
- IV antibiotics & fluid resuscitation (benpen/ceftriaxone/aciclovir)
- Candidate should discuss how they will achieve this, recognising that they will have to intubate in order to facilitate safe investigation and treatment (CT/LP)
- Induction for intubation without empiric treatment with IV fluids/antibiotics or mentioning that they intend to optimise haemodynamics/ensure adequate BP is a critical fail
- Drugs- safe & sensible options with justification, suxamethonium should be avoided (risk of rhabdo/hyperkalaemia in restrained patient or patient with hyperthermic toxidrome)
- Supportive care- cooling, IV fluids, NGT, IDC
- Disposition- ICU, ID consult

Prompt:

“How will you safely transport this patient to the CT scanner?”

“When would you consider performing a lumbar puncture in the ED for this patient?”

Section 4: Complication of intubation (minute 6-7)

“You have successfully intubated the patient and set them up on the ventilator. The nurse asks you attend urgently as they lost the end tidal Co2 trace. How do you approach this situation?”

Differentials of flat ETCO₂ trace

Equipment:

- Ventilator disconnection
- Capnograph not connected to circuit
- ETT obstruction with secretions
- ETT misplaced – extubation, oesophageal intubation

Patient

- Respiratory/Cardiac arrest
-

Examiner name(s):

Candidate Name:

OSCE Station:

For each domain below select the **ONE** option which best represents this candidates performance. The option '**Minimum level of competency displayed**' represents the minimum level of safe independent practice as a junior FACEM in Australasia.

A horizontal bar chart with seven categories on the x-axis, each represented by a bar of a different shade of blue. The categories are: Very poor, Well below minimum standard, Below minimum standard, At minimum standard, Above minimum standard, High standard, and Very High standard. The bars show the percentage of respondents for each category.

Response Category	Percentage
Very poor	1%
Well below minimum standard	1%
Below minimum standard	1%
At minimum standard	1%
Above minimum standard	1%
High standard	1%
Very High standard	1%

Please rate all the following domains:

[illegible]

GLOBAL ASSESSMENT RATING

Please rate this candidate's OVERALL performance in this OSCE:

In terms of a **safely practising junior emergency physician** please select the ONE option which best reflects this candidate's performance in this station

**Well
Below
Standard**

☐

**Below
Standard**

☐

**Just at
Standard**

☐

**Above
Standard**

☐

**Well
Above
Standard**

☐