



OSCE 8 Structure Case-Based Discussion

Candidate Information:

This station is a **Standardised Case-Based 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 your reasoning and rationale to your approach and decisions.

Please be as specific as possible when answering. For example, when discussing drugs, describe your dosage regimen and the reasons why you chose that regimen, as opposed to other regimens.

Case Information:

You are the duty consultant of a Regional Hospital Emergency Department. You have an onsite ICU and Anaesthetics services.

A 65 year old male has presented with lip and tongue swelling and is lightheaded after taking enalapril for the first time for hypertension. He is awake and alert.

Vital signs:

Temperature 37.1 degrees

Heart Rate 115

BP 90/50

RR 35

O2sats 90% on room air

Past medical history is:

Hypertension

Hypercholesterolaemia

Asthma

No medications

No known allergies

Domains Examined:

Medical Expertise

- Initial Management 30%

- Specific/further Management 40%

Prioritisation and Decision-making 30%



Candidate Information Vital signs:

Initial Vital Signs:

Temperature 37.1 degrees

Heart Rate 115

BP 90/50

RR 35

O2sats 90% on room air

Fold-----

You successfully intubate him with video laryngoscopy, 30 seconds post intubation his vital signs are:

Temperature 37.1 degrees

Heart Rate 170

BP 50/30

RR 12

O2sats 96% on 100% FiO2



Candidate Questions:

Stage 1: 0-2mins: "What is your initial management of this patient?"

-Supportive- O2, IV access, IVF bolus, resus cubicle, team approach, call for help-ICU/Anaesthetics

-Specific - Adrenaline 500mcg IM repeat 5-10 minutely

- Adrenaline nebulized 5mg, Ventolin nebs 5mg
- Steroids – iv hydrocortisone 100-200mg, not oral prednisolone
- PROMPT: "Would you use an antihistamine?"- avoid oral, only parenteral is promethazine-avoid due to s/e hypotension/drowsiness, could try Ranitidine H2 blocker
- PROMPT: "Given the drug that may have triggered this reaction, is there any other management you would use?" consider specific ACEi anaphylaxis treatment by Rxing hereditary angioedema and may have use in this case
 - Fresh frozen plasma - contains ACE and increases bradykinin degradation
 - Icatibant - bradykinin antagonist
 - C1 inhibitor - inhibits kallikrein which in turn inhibits production of bradykinin
 - Ecallantide - recombinant protein that inhibits bradykinin production

Stage 2: 2-4:30 mins "10 minutes after your initial management above, with the patient on an Adrenaline infusion he is tiring and becoming drowsy. What would be your approach to managing his airway?"

-Call for help/team approach- ICU/Anaesthetics/within the ED

-Prepare:

- equipment - video laryngoscopy, LMA, bougie, NPA, suction, ETT, Guedel, Bag- Mask-Valve -drugs
 - ketamine 0.5 – 1.5mg/kg, fentanyl, suxamethonium 1.5mg/kg, rocuronium 1.2mg/kg, NOT Propofol/Thiopentone
- personnel- most experienced intubator, team leader, airway nurse, drug nurse, scribe

-intubation:

- ? Awake fibre-optic intubation in theatre
- Plan A – Video laryngoscopy
- Plan B - LMA
- Plan C – surgical – needle cricothyroidotomy/percutaneous kit (e.g. Melker)/open cricothyroidotomy- scalpel/bougie/ETT

Stage 3: 4:30 – 7:00 Mins "You successfully intubate him with video laryngoscopy, 30 seconds post intubation his vital signs are:

Temperature 37.1 degrees

Heart Rate 170

BP 50/30

RR 12

O2sats 96% on 100% FoO2



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"What are the potential causes of this change in condition and how would you manage them?" -Shock post intubation- seek/treat causes

- ongoing anaphylaxis- adrenaline infusion, IVF, bronchodilators
- obstructive shock from gap trapping- decompress chest- disconnect ETT and manual external chest compression, bag/valve ventilate- prolonged expiratory phase, permissive hypercapnoea, bronchodilators

- Tension Pneumothorax – chest decompression
- intubation drugs- Metaraminol, IVF bolus
- ETT malpositioned- less likely- check ETT-auscultate, end tidal CO2, fogging, CXR, reposition
- other causes of shock less likely- cardiogenic/PE/tamponade/sepsis



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Examiner Marking Sheet

COMPONENT ASSESSMENT

For each Domain select the ONE best option that best represents the candidate's level of performance. The option "minimum level of competency displayed" represents the level of safe independent

a junior
Please

Very poor level of competence

Below

Well below

Minimum level of competency displayed

Above

High level of competency displayed

Very

FACEM in Australasia
rate ALL the following domains:

Medical Expertise

-Initial Management

-Specific/further
Management

Prioritisation and Decision
making

[Detailed assessment criteria](#)

Please use the following criteria to inform your ratings above (mandatory items in ***bold italics***)

Medical Expertise

Initial Management:

Stage 1

-Supportive- **O2, IV access x 2 large bore, IVF bolus**, resus cubicle, team approach, call for help-ICU/Anaesthetics

-Specific - **Adrenaline** 500mcg IM repeat 5-10 minutely, then Adrenaline Infusion 6mg in 100mls N/saline 5-15mcg/min titrated

- Adrenaline nebulized 5mg, Ventolin nebs 5mg

- Steroids – iv hydrocortisone 100-200mg, not oral prednisolone

- Antihistamines- avoid oral, only parenteral is promethazine-avoid due to s/e

hypotension/drowsiness, could try Ranitidine H2 blocker

- consider specific ACEi anaphylaxis treatment Rx hereditary angioedema and may have use in this case - Fresh frozen plasma (Icatibant, C1 inhibitor, Ecallantide)

Specific/Further Management:

Stage 2: Airway:

-Call for help/team approach- ICU/Anaesthetics/within the ED

-Prepare:

-**equipment** - video laryngoscopy, LMA, bougie, NPA, suction, ETT, Guedel, Bag- Mask-Valve -**drugs**
– ketamine 0.5 – 1.5mg/kg, fentanyl, suxamethonium 1.5mg/kg, rocuronium 1.2mg/kg, NOT Propofol/Thiopentone

-**personnel**- most experienced intubator, team leader, airway nurse, drug nurse, scribe

-intubation:



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-?Awake fibre-optic intubation in theatre

-**Plan A** – Video laryngoscopy

-**Plan B** - LMA

-**Plan C** – surgical – needle cricothyroidotomy/percutaneous kit (e.g. Melker)/open cricothyroidotomy- scalpel/bougie/ETT

Stage 3: Shock post intubation- seek/treat causes:

-**ongoing anaphylaxis**- adrenaline infusion, IVF, bronchodilators

-**obstructive shock from gap trapping- decompress chest**- disconnect ETT and manual external chest compression, bag/valve ventilate- prolonged expiratory phase, permissive hypercapnoea, bronchodilators

-Tension Pneumothorax – chest decompression

-intubation drugs- Metaraminol, IVF bolus

-ETT malpositioned- less likely- check ETT-auscultate, end tidal CO2, fogging, CXR, reposition

-other causes of shock less likely- cardiogenic/PE/tamponade/sepsis

Prioritisation and Decision-making:

-Recognise with respiratory and circulatory failure

-**Rapidly administer IM Adrenaline**, repeat Adrenaline doses move to Adrenaline infusion

-Have **structured approach to airway management** and planning

-Stepwise **approach to shock post intubation**

Station Summary: Structured CBD Anaphylaxis management

EXAMINER NOTES (For examiner reference only)

OSCE 'incident reporting' notes: Please provide details if an issue occurs which may influence the 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 average of the individual domain scores. This element MUST be completed for the standard of the examination to be set.

**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:

Well Below Standard

Below

Standard

Just at

Standard Above Standard