

Monash Health Fellowship examination OSCE

SUBJECT AND CURRICULUM REFERENCE:

Anaphylaxis

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

Length: 20 minutes

CLINICAL SCENARIO STEM:

Brad is a 55yo male patient seen in ED with right lower lobe pneumonia. He is to be transferred to a private hospital under the care of a private physician. He has been admitted to SSU in the interim.

He has been prescribed Ceftriaxone and Azithromycin.

Prior to being transported from the main ED cubicle to SSU, 1 g of Ceftriaxone was administered and 500mg of Azithromycin infusion has been commenced which is still being infused.

The patient tells the nurse that he feels like he has a lump in his throat, he looks anxious, SOB and has evidence of urticaria.

The emergency buzzer is pressed.

INSTRUCTIONS

Candidate:

You are the senior doctor in the department. The scenario is in the Resuscitation Room. There is a high fidelity mannequin that will respond as a live patient. The patient already has one IV cannula in situ.

You have two assistants who are competent nurses, but require instruction.

The registrar has been called away and is not available to attend.

Role player- nurse assistant #1:

You are an experienced ED nurse. When the candidate enters the room you brief him on the patients condition.

“ My name is “Fay” I am one of the nurses. This is Brad. He has pneumonia. He has just come up with a rash and he complains of a lump in his throat. In the last couple of minutes he has become SOB”

You will follow the candidate’s instructions promptly, efficiently and competently, including preparing drugs and infusions.

Role player – Nurse assistant #2:

You are an experienced ED nurse.

You will follow the candidate's instructions promptly, efficiently and competently. You will not prompt him (her) with regards to observations deteriorating.

Examiner:

The scenario requires an advanced mannequin, which has an IV cannula in situ and is connected to a monitor.

IV Azithromycin is still being infused.

This is case of Anaphylaxis.

The Candidate is expected to:

1. Recognise anaphylaxis- life threatening emergency

2. Demonstrate:

1ST LINE THERAPY:

1. Airway and oxygenation
2. Decontamination – cessation of the causative agent
3. Adrenaline:
 - 300mcg IM 1:1000
Repeat every 5-10 min
Avoid SC- slower peak blood levels
Lateral thigh than deltoid – more effective in achieving peak blood levels
 - 100mcg (0.1mg) IV as a 1:100000 dilution over 5-10 min:
Place 0.1 mg adrenaline (0.1ml of 1:1000) in 10ml N/saline
 - If refractory to initial bolus commence adrenaline infusion:
1mg adrenaline (1ml adrenaline 1:1000 dilution) in 500ml NS and run at rate 1-4mcg/min = 0.5-2ml/min) titrating to effect.

4. NS 1-2 lit for hypotension

2ND LINE THERAPY:

1. Corticosteroids
Hydrocortisone 250mg IV
2. Antihistamines
H1 and H2 blockers

3. Agents for allergic bronchospasm

If wheeze:

Salbutamol neb

Ipratropium neb

MgSO₄ 2g IV over 20-30 min

3. Leadership

4. Team work

a. Communication

- How do you delegate tasks effectively i.e. ask specific person to do specific task
- How do you get their attention: call them by name, touch them, get eye contact
- Closing the loop (leader ask person "A" to give adrenaline → person "A" gives adrenaline → person "A" states 1mg adrenaline given)

b. Roles:

- Delegates tasks

DURING THIS PRACTICE EXAM THE EXAMINER ALSO OPERATES THE CONSOLE

Room Set Up

Nursing chart at end of bed with observations

Medication chart

1 18G IV cannula insitu

Patient in hospital gown

Covered with two blankets

Oxygen saturation monitoring

Non-invasive BP monitoring

Crash trolley

Defibrillator

Intubation equipment checked and available

- 7.5 cm endotracheal tube (ETT)
- 20 ml syringe
- Introducer

Creator: Anastasia Sfakiotaki

Version 1.0 April 2015

- ETCO2 monitoring
- Lubricant
- McGill's forceps
- Laryngoscope
- Size 3 & 4 McIntosh blades (light source checked and functioning)
- Tape to secure ETT

Drugs available :

1mg Adrenaline 1:1000
 1mg Adrenaline 1:10000
 Aramine 10mg
 Hydrocortisone 100mg
 Salbutamol 5mg nebulas
 Ranitidine 50mg
 Phenergan
 Claratyne 10mg
 Prednisolone 25 mg
 N/saline 500ml and 1 Lit

Control Instructions

Initial obs set up:

GCS 15
 HR 120 BP 85/50 O2Sats 88%RA

Once patient is connected to the monitor: sinus Tachycardia

After administration of 300mcg adrenaline IM AND O2 → transient improvement in BP 100/60 O2sats 95% HR 130

After administration of 1L NS transient improvement of BP to 100/60

Relapse follows:

Patient has hoarse voice/ anxious
 GCS 15
 HR 120 BP 85/50 O2Sats 88%RA

After administration of 100mcg adrenaline over 5-10 min → transient improvement in BP 110/60 O2sats 96% HR 130

If time allows further relapse

GCS 15
 HR 120 BP 85/50 O2Sats 88%RA
 Participants to commence adrenaline infusion

