OSCE: Airway

Bariatric Patient

Candidate Instructions

- **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.
- CANDIDATE INSTRUCTIONS
- You are a FACEM at a teaching hospital. You have a 65 yo morbidly obese patient with pneumonia that is now tiring and will need imminent intubation. You have a registrar and 3 nurses that can assist you.
- Discuss how you would approach to preparing for and establishing an airway and post intubation ventilation in the obese patient.

This OSCE will assess the following domains:

Medical Expertise

Scholarship & Teaching

Communication

Marking Criteria

- Assume each case is difficult
- Anatomy and physiology
- Positioning
- Pre-oxygenation
- NIV + PEEP
- Medication dosing
- Laryngoscopy approach
- Ventilation settings

Airway in the Obese Patient

ASSUME EVERY CASE WILL BE DIFFICULT

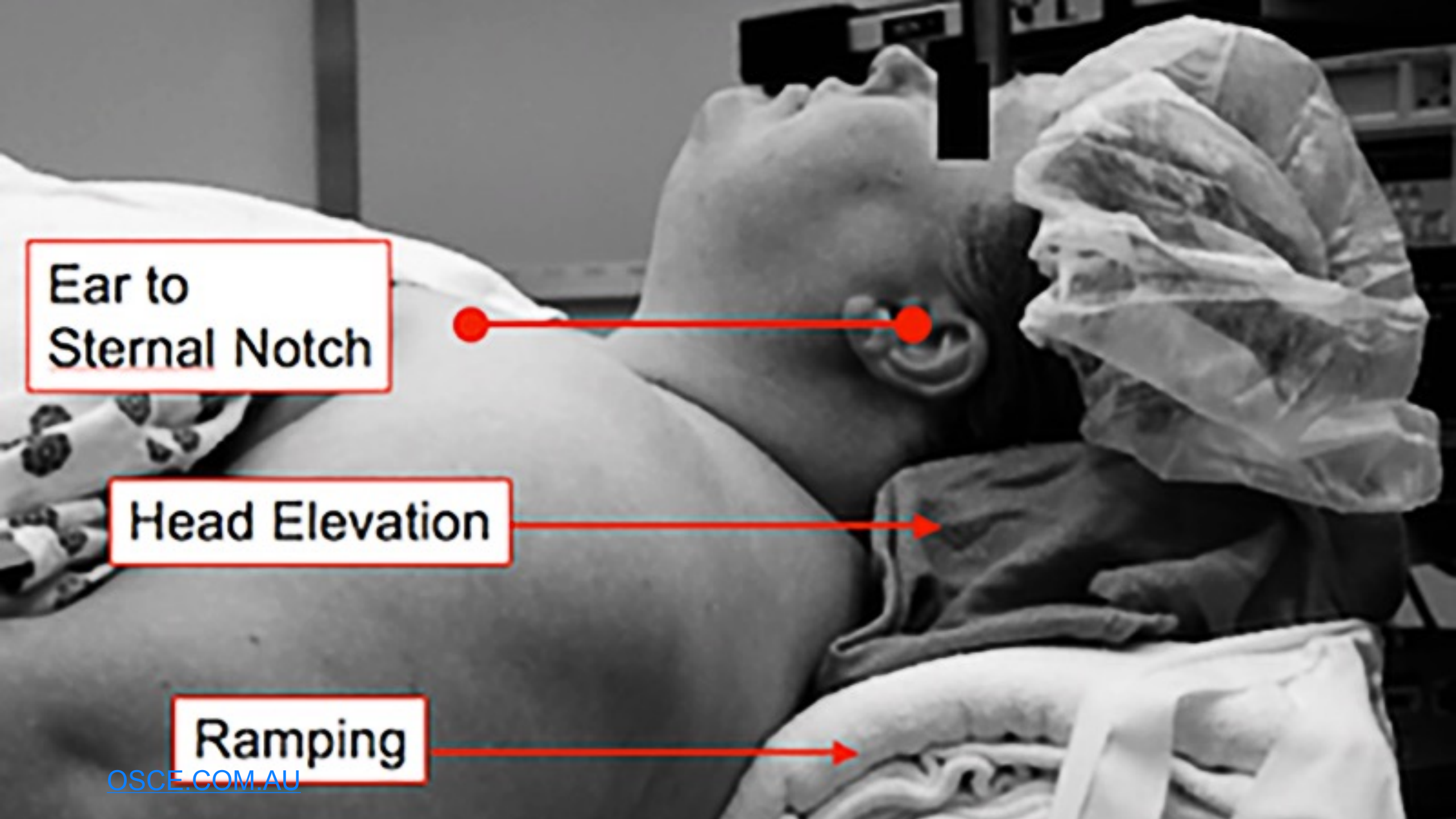
…..BECAUSE IT WILL BE

Anatomy and Physiology

Decreased FRC
Increased oxygen consumption
Increased work of breathing.
Increased airway resistance due to tissue
Increased risk of pharyngeal wall collapse with paralysis.

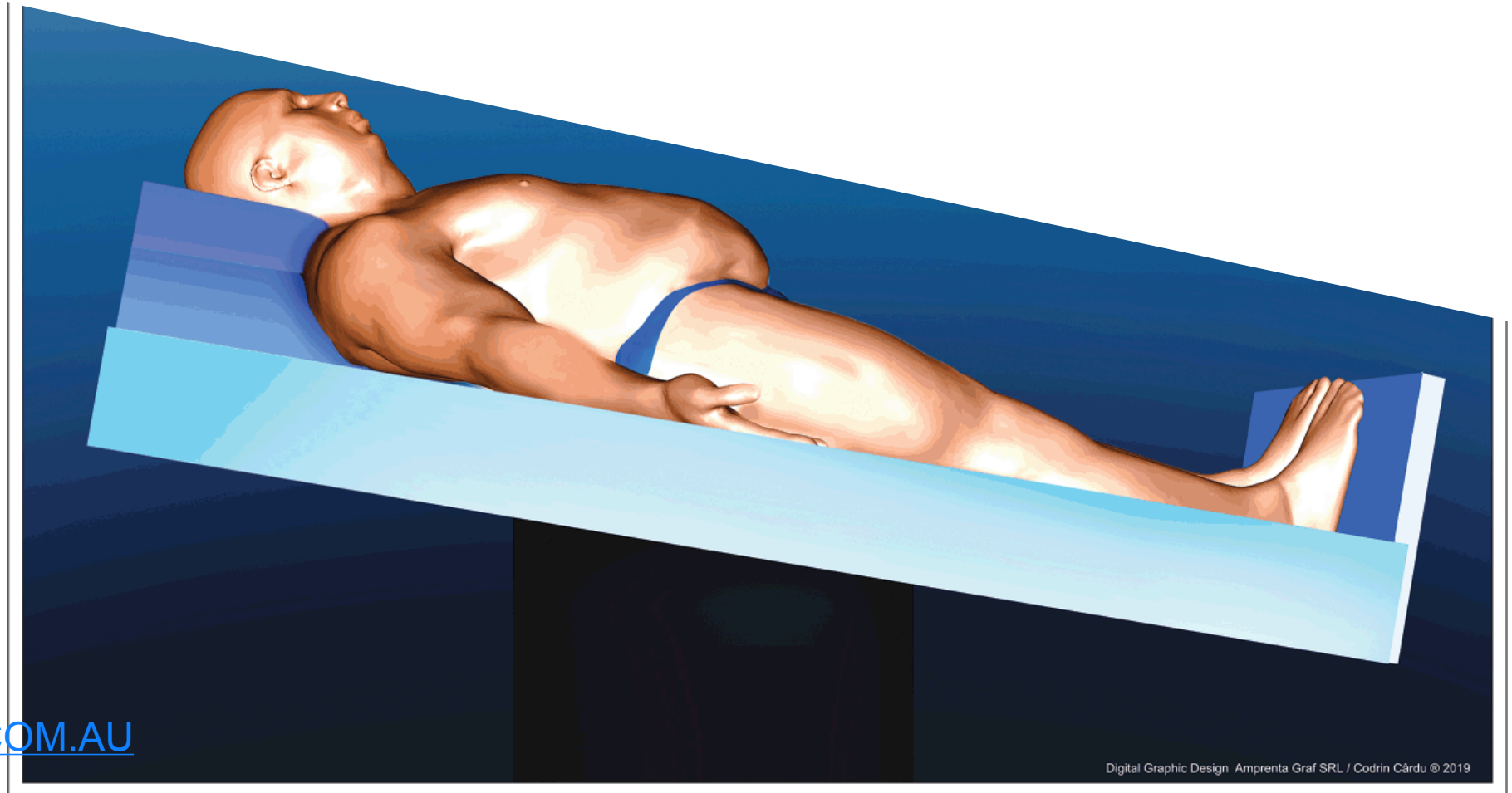
Safe apnoea times decreased
Ventilation in the supine position difficult due to diaphragm displacement

Positioning



NEEDS PREPARATION

RAMPING DISPLACES ABDOMINAL CONTENTS


Digital Graphic Design Amprenta Graf SRL / Codrin Cârdu ® 2019

Pre-oxygenation

NIV + PEEP
APNOEIC OXYGENATION

Modify Airway Technique

BVM difficult

Airway adjuncts may help

Laryngoscopy difficult

Surgical airway extremely difficult

Medication Dosing

Ideal vs Total Body Weight

Propofol: Ideal Body Weight.

Significant risk of hypotension as larger doses used.

Ketamine: Ideal body weight

Suxamethonium: *Total body weight*.

Rocuronium: Ideal body weight.

~~Propofol~~

Ketamine: Titrate

Suxamethonium

Rocuronium

TBW

Laryngoscopy

Direct vs Video

Awake intubation

DL : short handle laryngoscope / larger blade

VL : better views of the glottis

Ventilation

Tidal Volumes (6-8mL/kg ***Ideal body weight***)

Higher respiratory rates(15-20)

Reverse Trendelenburg improve oxygenation and ventilation

PEEP 10-15cmH_20

OSCE

Syncope

OSCE.COM.AU

CANDIDATE INFORMATION

You are the consultant in a tertiary ED. Your Junior registrar Dr Bennett has just seen an independent 68 year old man who lives at home. He had a syncopal episode whilst waiting in line at the supermarket. An ambulance was called and has brought him in. His observations en route have been normal. He has IV access and has oxygen running at 6L/min. He tells you that he is really keen to go home.

He has told you that he had no preceding symptoms prior to the unconscious collapse, particularly chest pain, SOB or headache, and now feels quite well. His PMH includes only hypertension and type II diabetes and he is taking a sulfonyurea and candesartan.

His observations in the ED are HR 180, sats 99% on 15L oxygen and BP 80mmHg systolic. He is in a resus cubicle.

An ECG is available:

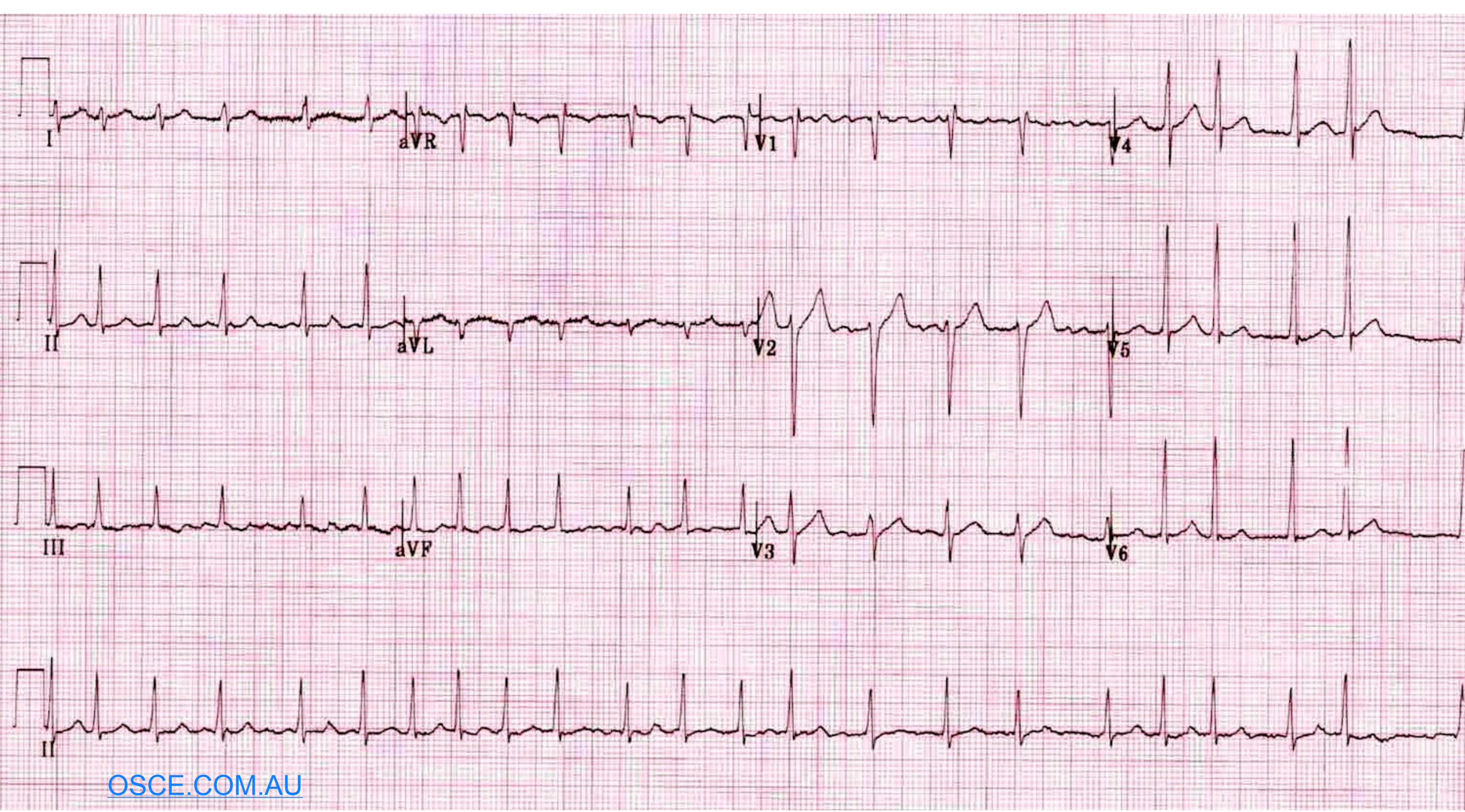
You will be assessed on:

- Assisting the registrar in reading the ECG and in understanding the patient's condition
- Discussion of an appropriate management plan
- Assist the registrar with executing the management plan

No additional people or equipment are involved in this station.

Domains assessed:

Medical Expertise
Communication
Scholarship and Teaching



Domain	Criteria for High Rating
Medical Expertise	• Interpret ECG as AF • Recognise shocked patient • Ask appropriate questions about patient assessment • Knows how to synchronised cardiovert and sedation
Communication	• Builds rapport with the registrar • Asks clear and focused questions about the student's assessment of the patient • Teaches the registrar about the ECG and cardioversion • Uses appropriate non-verbal communication, • Uses appropriate use of language and words
Scholarship and Teaching	• Teaches the registrar about AF • Teaches the registrar about tachyarrhythmia and shock management • Teaches the registrar about synchronised cardioversion • Answers questions from the registrar • Asks the registrar to paraphrase or repeat what was taught to ensure the intern has retained and learnt the information

OSCE Headache

Candidate information

A patient has presented to the emergency department at 4pm, complaining of a sudden onset of severe headache, dizziness and nausea, which began at about 7.30am that morning, whilst lifting a heavy object. The pain was originally occipital at onset, then became a global. Symptoms have now improved.

The patient is stable and otherwise well, with no past medical history, on no medications.

Vitals are normal
GCS of 15/15 and is neurologically intact.

A non contrast brain CT is performed in the ED, which is reported as normal.

You have been asked you to talk to the patient about the CT result and any further investigation of the symptoms, that may be needed.

You have access to contrast CT, but your laboratory does not have access to spectrophotometry out of hours; any xanthochromia will be run tomorrow.

Domains Being Examined:

Medical Expertise

Prioritisation

Communication

Marking Criteria

Medical expertise:

- Demonstrates knowledge of role of LP alone vs CT/CT COW in investigating SAH.
- Demonstrates knowledge of consequences of missed sentinel bleed.
- Options
    - Delay LP spectrophotometry available
    - CT now if negative LP tomorrow if concerns persist
    - CT negative- done
    - CTA
- Explains adverse reactions/complications. of the possible investigations

Communication:

- Assess patients level of understanding whilst communicating CT result
- Clear communication whilst avoiding jargon and excessively complex language
- Explain the available options for further

Health advocacy:

- Provide patient enough information to make an informed decision and engage in shared decision making

Professionalism:

- Professional conduct throughout

OSCE

Paediatrics

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 Base Hospital Emergency Department. A 3 yo child is brought to the emergency department as mother complains that the child hasn't been walking properly for the past week and today refuses to put weight on the right leg.

On examination the patient is alert and in no distress. She is seated on the floor playing.
Examination demonstrates minor tenderness in her foot but nothing else. The patient's vitals are as follows:

Vitals: HR 110 bpm BP 110/40 mmHg Sats 99% on RA RR 26

The child has no past history, is fully immunised for her age.

This SCBD will assess the following domains:

- **Medical Expertise (60%)**
  - Initial Management(20%)
  - Specific/further Management (40%)
- **Prioritisation and Decision-making (40%)**

Standardised Case-Based Discussion- Candidate Expectations

Candidates would be expected to cover the following responses in each of the relevant domains:

Medical Expertise

Part 1

What are your key concerns in the initial assessment of this patient?

In all kids
•Infections: Osteomyelitis / Septic Arthritis, discitis, soft tissue, viral myositis
•Trauma **(see** Fractures)
•Non accidental or inflicted injury (see Child abuse guideline) - fracture, sprain, haematoma
•Malignancy - Acute lymphoblastic leukaemia, bone tumours, eg: spine or long bone
•Rheumatological disorders and reactive arthritis
•Intra-abdominal pathology, eg: appendicitis
•Inguinoscrotal disorders, eg: testicular torsion
•Vasculitis, serum sickness
•Functional limp

Toddler (1-4 years)	Child (4-10 years)	Adolescent (>10 years)
• Developmental dysplasia of the hip (DDH) • Toddlers fracture • Transient synovitis of the hip (Irritable hip) • Child abuse	• Transient synovitis of the hip • Perthes Disease	• Slipped upper femoral epiphysis (SUFE) • Overuse syndromes / stress fractures

Part 2

What are the key elements in history and examination to consider?

History

- Duration of symptoms
- Complete refusal to weight bear
- Trauma - there is often a coincidental history of trauma in a non-traumatic condition or there may be no history of trauma and the child may have a significant injury.
- Preceding illness - there is often a history of a simple viral infection preceding a transient synovitis or reactive arthritis
- Fever or systemic symptoms - suggests infective or inflammatory causes
- Pain - site and severity. Pain on changing the nappy, causing back flexion, may be present in discitis
- Morning stiffness
- Previous injuries or child protection concerns

Examination:

- General appearance, temp
- Gait - running may exaggerate a limp
- Neurological examination - look for ataxia, weakness
- Generalised lymphadenopathy (viral infection / haematological cause)
- Excessive bruising or bruising in unusual places (NAI, haematological)
- Abdomen, scrotum and inguinal area (masses)
- Bony tenderness
- All joints
-
    - knee pain can be referred from the hip, and thigh pain can be referred from the spine
    - Include sacro-iliac joints and spine in joint assessment - look for pain on flexion and/or midline tenderness which may be present in discitis
    - Exaggerated lordosis (discitis)
    - Hip abduction and internal rotation are often the most restricted movements in hip pathology

Part 3

What is your approach to this patient? Please provide details and reasoning.

Investigations:

Unless suspecting a specific diagnosis, investigations are usually not required in children with limp <3 days duration.

- Bloods:
  - FBE, CRP, ESR, blood culture
- Imaging:
  - plain films

Imaging may demonstrate:

Plain x-rays	Ultrasound scan	Bone scan	CT / MRI
• Perthes / SUFE • Chronic osteomyelitis (bony changes only evident after 14 - 21 days) • Tumours • Developmental dysplasia of hips (> 6 months of age)	• septic hip	• Osteomyelitis • Discitis • Perthes • Occult fracture	• Only after orthopaedic consultation

Prioritisation and decision-making

- Explain why the duration of the limp may be a concern
- Justify decision to investigate as over 3 days
- Explain and justify an appropriate order treatment including escalation
- Prioritise urgent transfer to a tertiary ICU which can deliver 3rd line care

Propranolol

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 Base Hospital Emergency Department.

A 26 yo woman is brought to the ED by ambulance. She has been found by her mother in her bedroom in a confused state. She had been seen 45 minutes earlier and had been well. The ambulance report that there are 60 x 40mg tablets of Propranolol that are missing. On arrival the ambulance officers state that the patients GCS was 13 and blood glucose was 5.5. The ambulance have established intravenous access, but given nothing. The patient's GCS is 9-10 and within 5 minutes of arrival the patient has a generalised tonic clonic seizure lasting less than 30 seconds. On arrival the patients vitals are as follows:

HR	60 bpm
BP	105/40 mmHg
Sats	98% on 6L
RR	20

Her examination is unremarkable. There are no focal neurological deficits or signs of injury. Collateral History reveals:

- Past history of IVDU, depression and suicide attempts and gastro-oesophageal reflux,

This SCBD will assess the following domains:

- **Medical Expertise (60%)**
  - Initial Management(20%)
  - Specific/further Management (40%)
- **Prioritisation and Decision-making (40%)**

Part 1

What are your key priorities in the initial assessment of this patient? Please also explain why these are your priorities.

- What initial treatment would you commence for this patient?

Part 2

As you are preparing the nurse hands you the patients ECG

- What is your analysis and interpretation of this ECG?
- What would you be expecting to find and how would it help you in your management?

Part 3

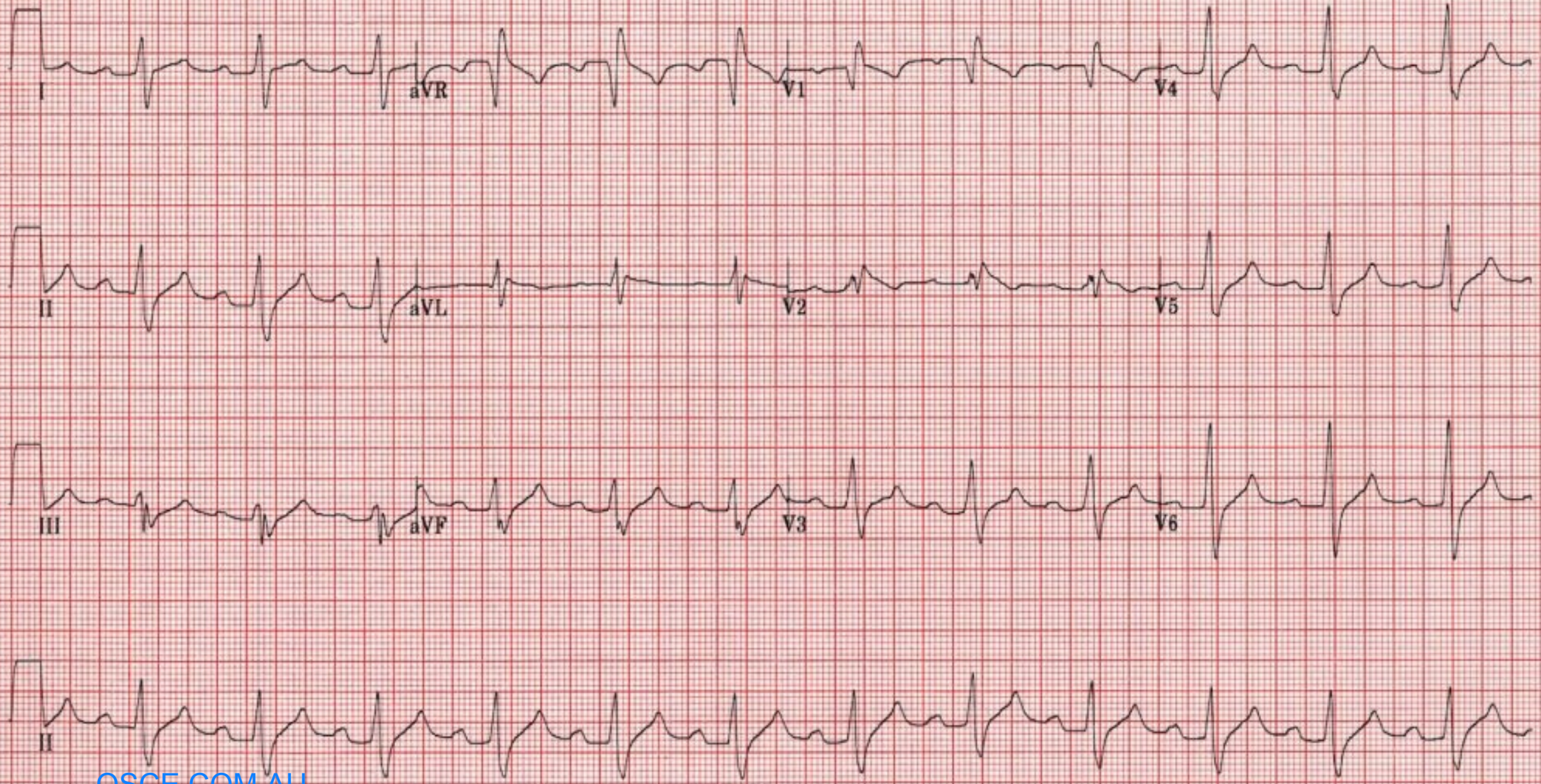
The patient has been intubated and decontamination has commenced.

HR 45bpm

BP 80/50 mmHg.

Other observations are unchanged.

What is your treatment plan now and for the next hour? Please provide details and reasoning.



source LITFL

Standardised Case-Based Discussion (SCBD) Example - Propranolol Overdose Candidate Expectations

Medical Expertise

Part 1: Initial Management

- Identify this is a potentially life-threatening propranolol toxicity

Protect the airway

1. The patient will need intubation. Ketamine and Rocuronium. I would at this point give 1L of crystalloid to the patient whilst doing this.
2. Hyperventilate the patient to a pH of 7.5

Improve the haemodynamics

3. This is where we have to decide on chronotropes, inotropes and sodium bicarbonate. read on for the possibilities.

- Provide details on other initial supportive treatment

- Part 2: Specific/Further Management
  - Provide a structured analysis of the ECG including confirmation of features of toxicity
  - Prolonged PR interval
  - Right axis
  - R wave in aVR > 3mm

The width of the QRS is predictive of seizures or arrhythmias, however it is not wide enough in this ECG.

ECG Changes that occur and what may be predictive

Prolonged PR
AVN blocks
Sinus bradycardia
Wide QRS: As in tricyclic overdose, this is predictive.
-QRS> 100ms: risk of seizures
-QRS> 160ms: Risk of Arrhythmias.
Rightward axis
Terminal R wave > 3mm in aVR

Part 3

Commence an appropriate escalating treatment plan to support patient's haemodynamic status

- Provide details of treatment plan modalities likely to succeed:

Initial rapid stabilisation is required. If the patient is in cardiac arrest, ACLS arrest protocols should be followed.

Seizures should be treated with benzodiazepines ie midazolam 0.15mg/kg

Arrhythmias should be treated with sodium bicarbonate($NaHCO_3$). Avoid Procainaimide, Amiodarone or Flecainide, as th sodium channels are already poisoned.

In early presentations and large ingestions, in patients with a normal conscious state, there is a place for charcoal.

In patients that require intubation, due to a depressed conscious state aim for ventilation to result in a pH 7.5-7.55

Na Channel Blockade

The widened QRS and terminal R wave in AVR should be treated as per tricyclics with $NaHCO_3$. 1-2mmol/kg every 2 minutes until QRS normalises.

Beta Blocker Effects

There are a range of treatments and a progression through them, to deal with the beta effects, especially unstable haemodynamics. The range of treatments includes both chronotropes and inotropes. We start with the basics and quickly escalate, as in most cases the basic measures don't work.

1. **Crystalloid**: A fluid challenge with NaSaline 0.9% 10-20mL/kg
2. **Atropine**: 10-30mcg/kg, to a maximum of 3g. This is a temporising measure and in most cases will not work.
3. **Glucagon**: Still appears in some texts as first line management. 5mg IV bolus over 1 minute , then repeat in 5-10 minutes, then consider an infusion. This can even be used as a diagnostic challenge. However, in reality, it doesn't work, as in most cases the hospitals have inadequate stock of this medications
4. **Isoprenaline**: Need to increase the dose accordingly to achieve an effective blood pressure.
5. **Adrenaline**: This can work as an inotrope and chronotrope, but find it doesnt work as well.
6. **High Dose Insulin Therapy**:This provides good inotropic support, however there may be up to a 30 minute delay before it begins to work. Give 50mL of 50%(25g) glucose and 1IU/kg bolus, this is then followed by an infusion of 25g glucose and titrate to a BSL of 5-14mmol/L. Add short acting insulin at 0.5IU/kg/hr(max 5IU/kg/hr)
7. **Intralipid** (Lipid Emulsion): It's role is not clearly defined. It acts as a 'lipid sink' for fat soluble drugs removing them from target organs. It does have some potential adverse effects including acute kidney injury, venous thromboembolism and pancreatitis. It can be used in cardiac arrest that is refractory to other measures. Use 100ml of 20% IVLE(1-1.5mlkg) IV bolus and repeat at 3-5 minute intervals.
8. **Cardiac pacing**:This is only used when medications are failing. It frequently fails to capture. Sometimes it will capture and it will increase the heart rate with no increase in perfusion.
9. **Haemodialysis**: Propranolol is not removed by hemodialysis.

Prioritisation and decision-making

- Explain why this overdose is potentially lethal
- ○ Justify decision to intubate to facilitate decontamination
- Explain and justify an appropriate order treatment including escalation
- Prioritise urgent transfer to a tertiary ICU which can deliver 3rd line care

Slit lamp OSCE

CANDIDATE INSTRUCTIONS

You are asked to explain a piece of equipment: the Slit Lamp, to a Junior Registrar, who has not used one before. The explanation will involve a set of images. You should explain the areas marked with a red dot on the image

You will be assessed on:

Explanation of the equipment and what it does

Explanation of the different height adjustments and light adjustment switches

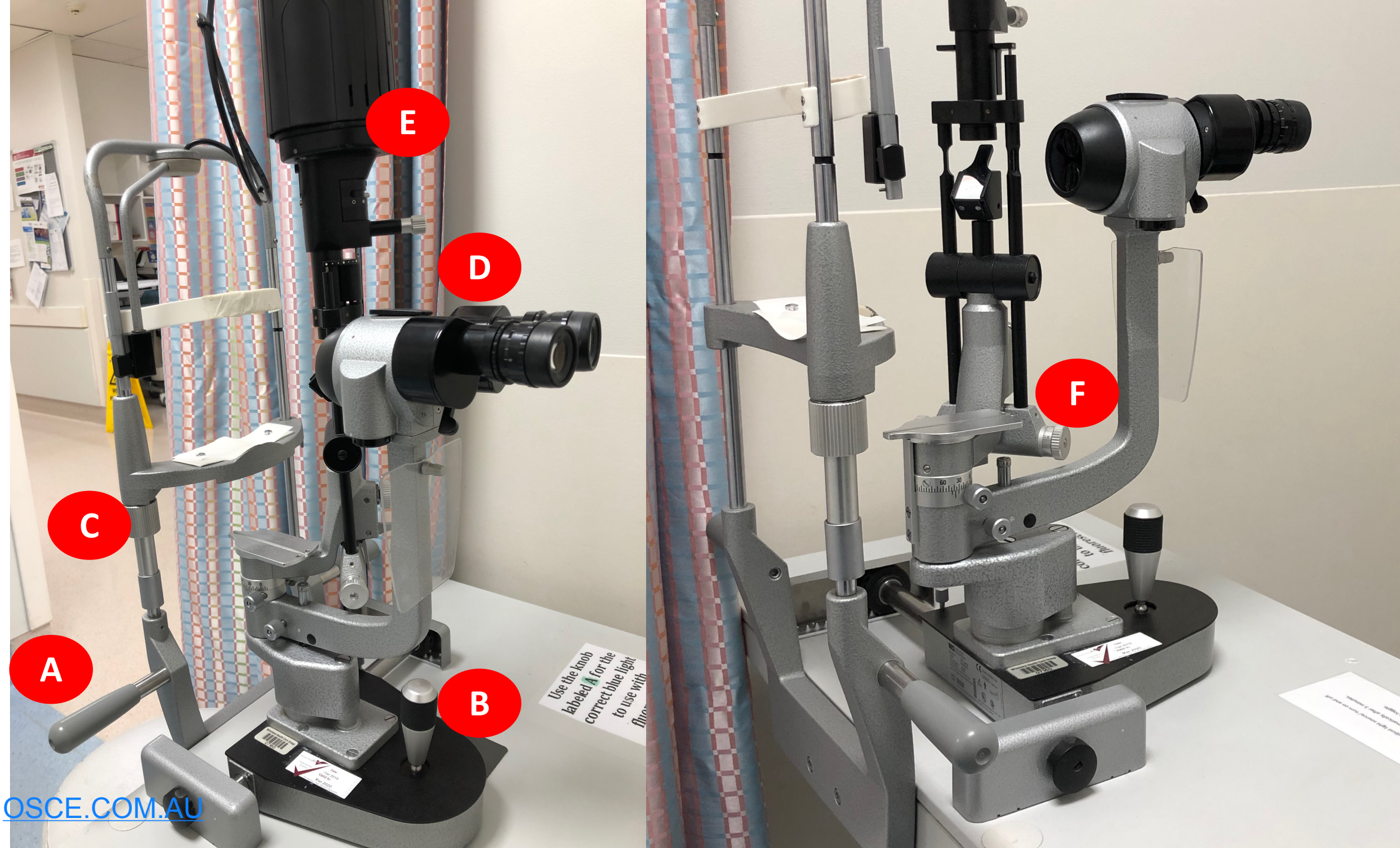
Explanation of use under any conditions asked about.

This OSCE examines the Domains of:

Medical Expertise

Communication

Scholarship and Teaching


E
D
C
A
B
F
Use the knob labeled A for the correct blue light to use with

ROLE PLAYER INSTRUCTIONS

You are a junior registrar working in a tertiary emergency department.

You have asked the consultant to show you how to set up and use the slit lamp
You wish to know about each of the light adjustment switches

You wish to know about its use in a patient with potential iritis.

Prompts:

How do I change the width and height of the light?

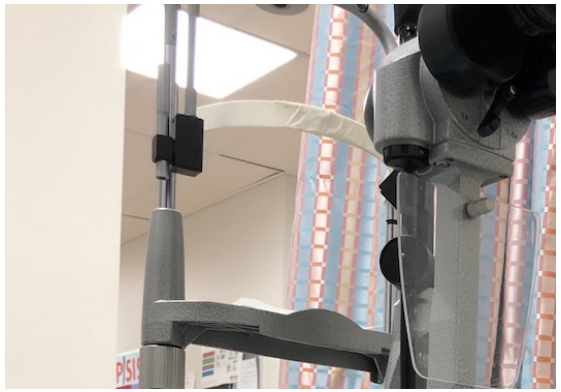
How do I look at the anterior chamber and what do I look for?

General approach

- What does the equipment do? What do we use it for
  - Allows visualization of conjunctiva, cornea, anterior chamber and the lens
- What do the components do or how do we use it?
  - Power
  - Height adjustment for patients
  - Light adjustment
  - Anterior chamber viewing

HEIGHT ADJUSTMENT

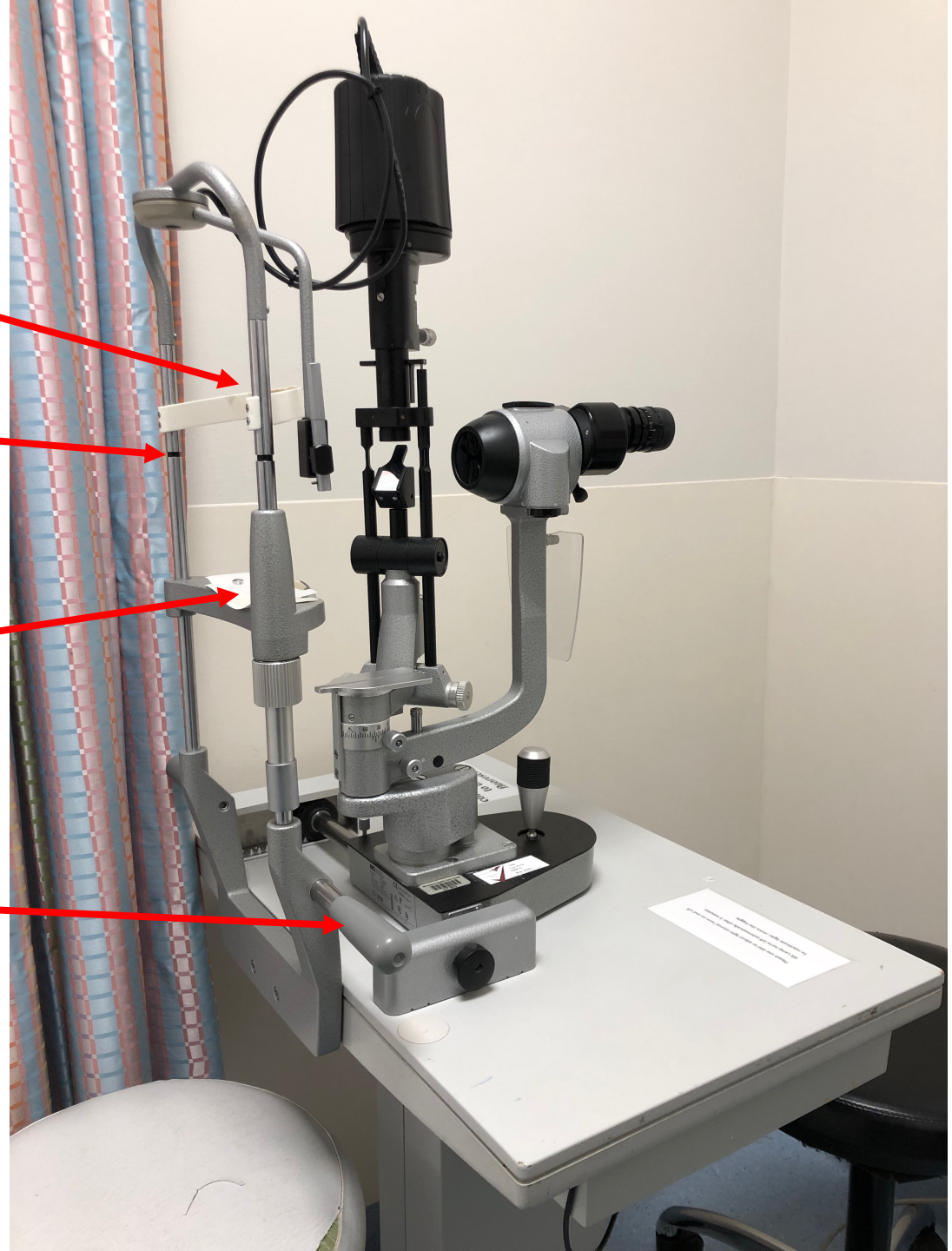
The aim is to align the patient's eyes with the black line.

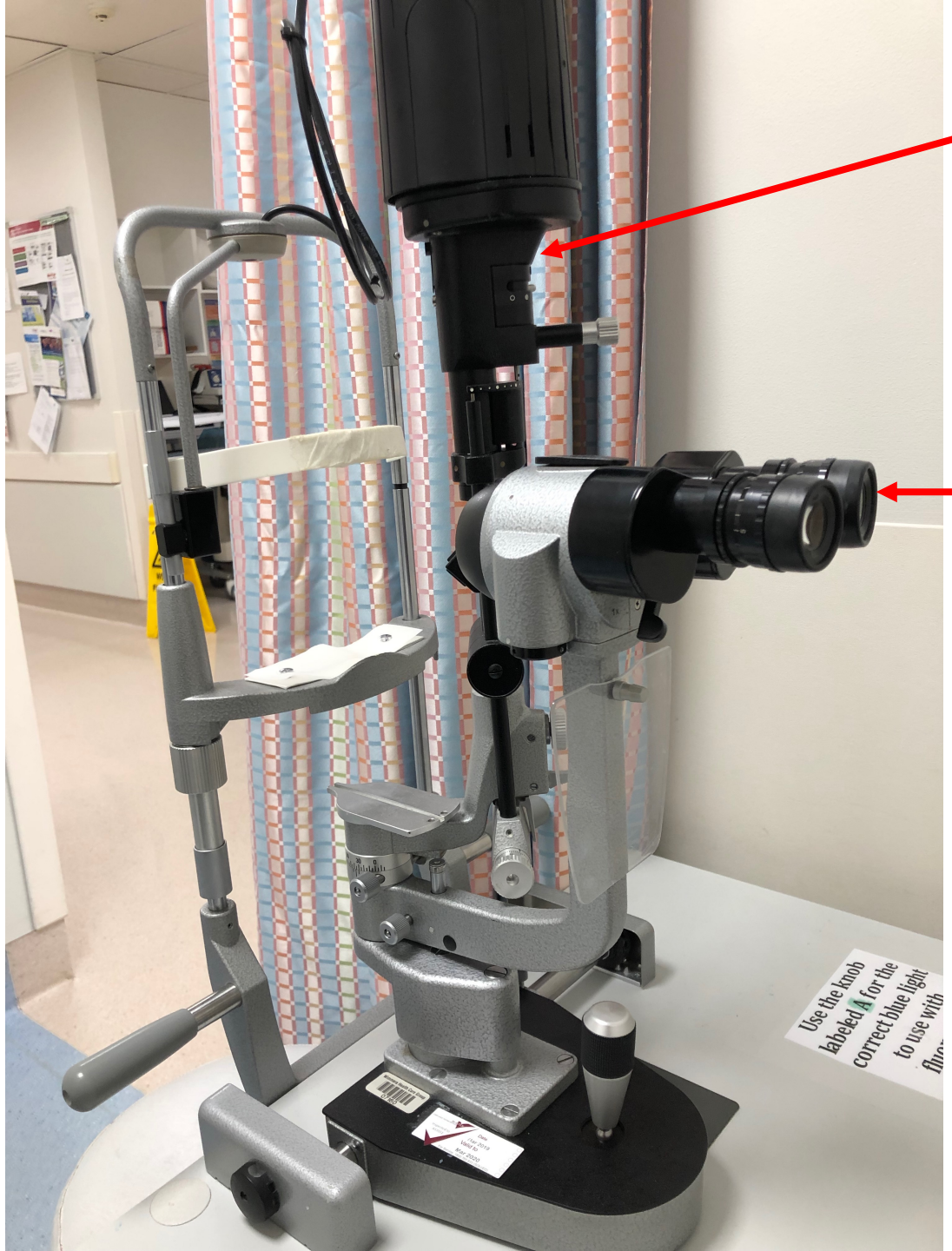


Finer adjustment of height can be obtained by turning this dial

Very fine adjustments to the height can be made by rotating the joy stick.
The joy stick can also be used to move the machine forward and backward and side to side

The whole table can be moves up or down by release of a lever that is usually under the table on the operator's side


Patient rests forehead here
Eyes aligned here
Patient rests chin here
Patient can hold onto handles here to stabilise



Light source. For viewing anterior chamber it is turned at 45 degrees to the temporal field of the eye being examined.

Binocular lenses

Vertical size of beam adjusted here. Also when turned completely to one side gives cobalt blue light.

Horizontal width of beam adjusted here

Syncope

CANDIDATE INSTRUCTIONS

Doctor Jones is a PGY3 junior doctor. He wishes to discuss a patient's ECG and their clinical presentation. You are in a tertiary referral center, at 11 am on a Wednesday.

The history is as follows, but Dr Jones is unaware of the examination findings. The patient, is a 40 year old man who is currently in Resus having come in following a syncopal episode without any injury.

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:

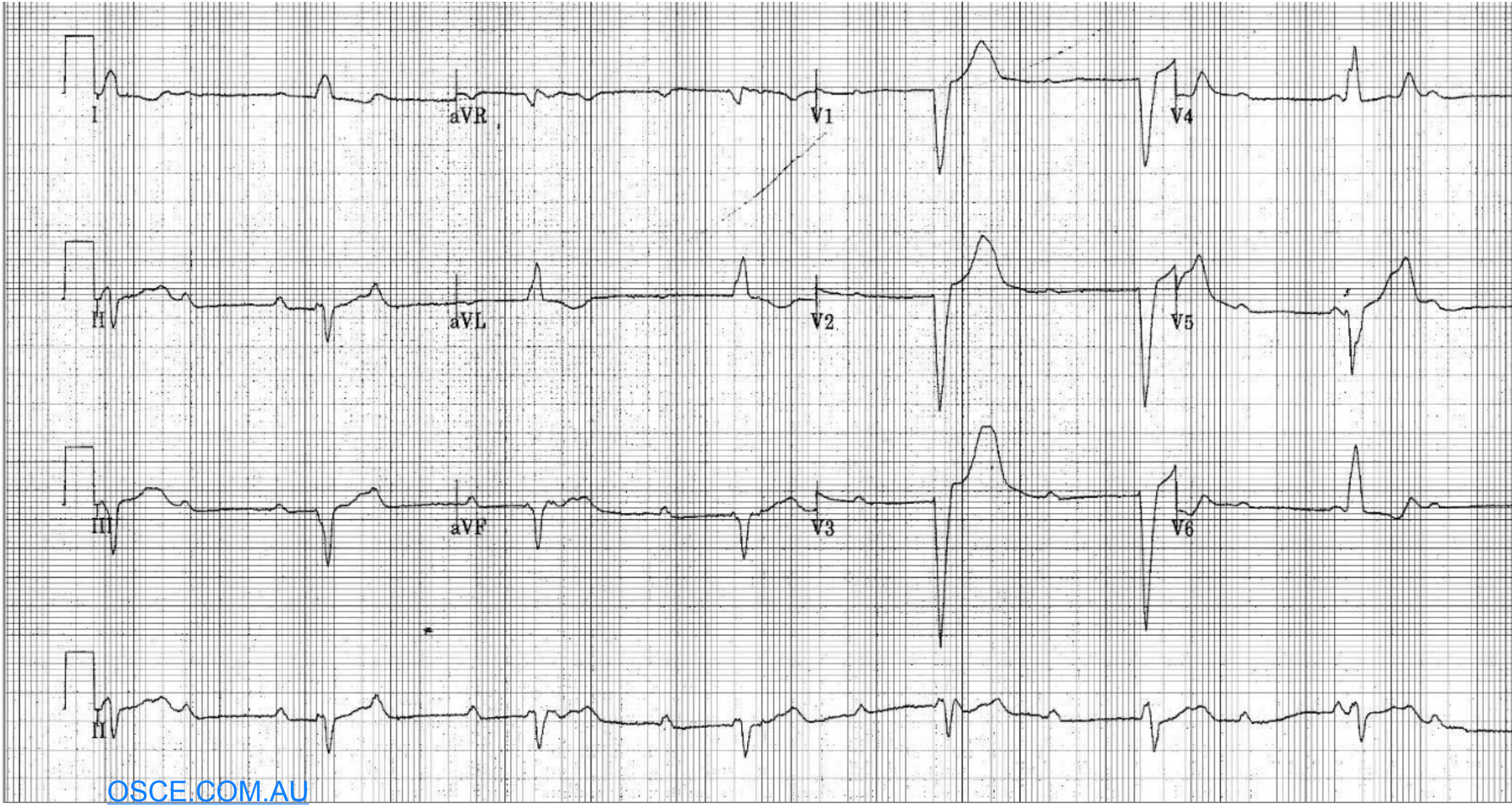
- Interpret the ECG
- Discuss the potential causes for the patient's presentation
- Explain what investigations would be required

Discuss the options for the circumstance of the patient deteriorating.

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



Trauma in Pregnancy

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 Base Hospital Emergency Department.

A 32 year old woman, who is 32 weeks gestation is brought in by ambulance. She has been involved in a high speed motor vehicle accident. She has sustained a head injury with a small scalp laceration. She complains of right sided chest wall tenderness on palpation and has a painful right knee, with no obvious other injury.

On arrival the patient is conscious and alert and in a hard, cervical collar. The ambulance officers state that the patients GCS has always been 15 and blood glucose was 5.5. The ambulance have established intravenous access, and given Fentanyl for analgesia. On arrival the patient's vitals are as follows:

HR 92 bpm
BP 110/40 mmHg
Sats 97% on 6L
RR 26

Her examination is demonstates a 2cm scalp laceration over the vertex of the skull. She has a painful right chest wall to palpation. The right knee is painful, but can be moved through a full range of motion. There is no neck pain and there are no focal neurological deficits. Past history includes gastro-oesophageal reflux,

This SCBD will assess the following domains:

Medical Expertise (80%)

Prioritisation and Decision-making (20%)

Part 1
How would you approach clearing this patient's cervical spine?

Part 2
What are some of the major differences in pregnancy, in terms of airway, breathing and circulation?
Airway
Resp tract oedema and increased risk of failed airway
Increased risk of regurgitation
Breathing
Decreased FRC by 20%
Circulation
Resting heart rate up by 15%
Increased blood volume so tachycardia and hypotension do not occur early

Part 3
You decide to perform a chest Xray and discuss performing a CT cervical spine with patient.
The patient is concerned about radiation exposure to the fetus.

Part 4

What are the potential injuries you are concerned about in blunt trauma in pregnancy?

Placental abruption

Most common cause of fetal death in blunt trauma
May occur after minor injury
Most occur in the first few hours
Almost all occur in the first 24 hours
May have vaginal bleeding
Need a CTG

Placental rupture

Rare
100% fetal mortality

Fetal injury

Rare in blunt trauma. Usually due to skull fracture in maternal pelvic fracture

Prioritisation and decision-making

o Explain why normal vitals are misleading in the trauma patient
o Justify decision to perform an xray
o Explain and justify the need for right sided tilt
o Prioritise urgent transfer to a tertiary ICU which can deliver 3rd line care as needed

OSCE

KNEE ASPIRATION

Candidate Information

Doctor Jones is a PGY3 junior doctor who wishes to discuss a patient with you. The history is as follows:

You are 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 an acute cubicle. He has presented with a right sided knee effusion and very red and tender knee.

The patient is currently stable under the care of a senior registrar who has performed a knee joint aspiration prior to you arriving and therefore you have time and/or several minutes to discuss this with Dr Jones.

Your tasks are to:

- Discuss the history and presentation
- Discuss the potential causes for the patient's presentation
- Explain what investigations would be required
- Outline the procedure of a knee joint aspiration

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

KNEE ASPIRATE

Appearance:	Yellow/Cloudy
WCC	62000/mcL
PMN%	66%
Crystals:	Present, Birefringent

Marking Criteria

Domain	Criteria for High Rating
Medical Expertise	**CAUSES**:Most likely as a result of the scratch to the leg, seeding the joint. In terms of infection: -Staph aureus- most common cause in adults -Streptococci- second most common cause -Haemophilus Influeza -Neisseria Gonorrhoea- most common in you sexually active males -E coli- In elderly and IVDU **PROCEDURE** Consent Find landmarks – medial aspect of patella, feel the distal femur Antiseptic wash Drape Local anaesthetic Large bore needle- 16G with syringe, enter the space and aspirate Occlusive dressing.
Communication	• Builds rapport with the registrar • Asks clear and focused questions about the student's assessment of the patient • Teaches the registrar about the technique • Uses appropriate non-verbal communication, • Uses appropriate use of language and words
Scholarship and Teaching	• Teaches the registrar about arthrocentesis • Teaches the registrar about how to interpret results • Answers questions from the registrar • Asks the registrar to paraphrase/repeat to ensure intern has retained/learnt information

OSCE

Vertigo

OSCE.COM.AU

Candidate Instructions

A 68 yo woman presents to the emergency department with a complaint of feeling dizzy. She has stated that the room started spinning approximately 3 hours ago. She has had similar episodes in the last few weeks. She felt unsteady on her feet, so called an ambulance

On arrival in the emergency department, she is complaining if a mild headache.

Past medical history of hypertension and smoking.

She is alert, afebrile and her vitals are within normal limits.

This is a SCBD

You will be required to discuss your approach to the clinical examination of this patient to determine the cause of a potential set of differential diagnoses.

Domains examined

Medical Expertise

Communication

OSCE CANDIDATE INSTRUCTION

A 68 yo woman presents to the emergency department with a complaint of feeling dizzy. She states that the **room started spinning approximately 3 hours ago**. She has had **similar episodes in the last few weeks**. She felt **unsteady** on her feet, so called an ambulance.

On arrival in the emergency department, she is complaining of a **mild headache**.
Past medical history of hy**pertension and smoking**.
She is **alert**, **afebrile** and her vitals are within normal limits.

You will be assessed on:

A differential diagnosis

Your approach to the clinical examination of this patient to determine the cause of a potential set of differential diagnoses.

Your identification of the causes

This OSCE assesses the Domains of:

-Medical Expertise

-Communication

OSCE CANDIDATE INSTRUCTION

ACUTE

COULD IT BE TIA?

A 68 yo woman presents [illegible] emergency department with a complaint of feel[illegible] dizzy. She states that the **room started spinning approximately 3 hours ago**. She has had **similar episodes in the last few weeks**. She felt **unsteady** [illegible]

BUT STILL WALKING

On arrival in the emergency department, she is complaining of a **mild headache**.

Past medical history of **hypertension and smoking**.

She is **alert**, **afebrile** and her vitals are within normal limits.

VASCULAR RISK FACTORS

NOT INFECTIVE(MENINGITIS)

IC PATHOLOGY BUT NOT SEVERE?

You will be assessed on:

A differential diagnosis

Your approach to the c[illegible]mine the cause of a potential set of differe

Your identification of t[illegible]

This OSCE assesses the Domains of:

-Medical Expertise

-Communication

3 Things to Remember

1. Miss rate of stroke in ED within one month of discharge is 1:500 *(Annals EM 2011)*
2. Solitary Vertigo decreases the miss rate to 0.67% or 1:150 *(Stroke 2006)*
3. Brain CT <2% yield. 2x the number of patients returning with stroke had normal CT

WHAT DO YOU MEAN BY ‘DIZZY’?

I’ve wasted a lot of time on this question and it may make no difference

Has it happened before?

Are there triggers?

When did it start?

PLUS Clinical Exam

NOTE: PERSISTENT NEVER GOES AWAY

?PSYCHOGENIC

diagnosis

ARE THERE ANY NEURO SIGNS?

YES

NYSTAGMUS
CRANIAL NERVES: -(Eyes)III, IV, VI, (Other)VII, VIII, IX, X
HEAD IMPULSE TEST/TOS
5 D'S: Diplopia / Dysmetria (+ GAIT) / Dysarthria / Dysphonia / Dysphagia
UL/LL

NO

IS THERE A HEADACHE WITH NO PREVIOUS HEADACHE HISTORY?

YES

NO

SOLITARY VERTIGO

IMAGING
NEURO CONSULTATION

YES

BPPV

SHORT DURATION
POSITIONAL
+VE DIX HALLPIKE
+VE SUPINE ROLL TEST

ACUTE VESTIBULAR NEURONITIS

GRADUAL ONSET
+VE HEAD IMPULSE TEST

CEREBELLAR

SUDDEN ONSET
-VE HEAD IMPULSE TEST

ACUTE TIMING AND TRIGGERS

RECURRENT | **PROLONGED**

SPONTANEOUS		TRIGGERED
MENIERE'S	VESTIBULAR MIGRAINE	BPPV
HEARING LOSS VERTIGO DROP ATTACKS	FAMILIAL HISTORY MIGRAINE>2 EPISODES	SHORT DURATION POSITIONAL +VE DIX HALLPIKE +VE SUPINE ROLL TEST

HINTS	
ACUTE VESTIBULAR NEURONITIS	CEREBELLAR
GRADUAL ONSET +VE HEAD IMPULSE TEST	SUDDEN ONSET -VE HEAD IMPULSE TEST

ARE THERE ANY NEURO SIGNS?

EXCEPT

UNILATERAL NYSTAGMUS,+VE RHOMBERG, +VE HEAD IMPULSE

YES → **CENTRAL CAUSE**
NEURO CONSULTATION

SPEECH
NYSTAGMUS
CRANIAL NERVES: -(Eyes)III, IV, VI, (Other)VII, VIII, IX, X
5 D'S: Diplopia / Dysmetria (+ GAIT) / Dysarthria / Dysphonia / Dysphagia
UL/LL

NO → **PERIPHERAL CAUSE**

ACUTE TIMING AND TRIGGERS

RECURRENT

PROLONGED

SPONTANEOUS		TRIGGERED	HINTS	
MENIERE'S	VESTIBULAR MIGRAINE	BPPV	ACUTE VESTIBULAR NEURONITIS	CEREBELLAR
HEARING LOSS VERTIGO DROP ATTACKS	FAMILIAL HISTORY MIGRAINE>2 EPISODES	SHORT DURATION POSITIONAL +VE DIX HALLPIKE +VE SUPINE ROLL TEST	GRADUAL ONSET +VE HEAD IMPULSE TEST	SUDDEN ONSET -VE HEAD IMPULSE TEST

ALWAYS DO A NEURO EXAM

ARE THERE ANY NEURO SIGNS?

EXCEPT

UNILATERAL NYSTAGMUS,+VE RHOMBERG, +VE HEAD IMPULSE

YES → **CENTRAL CAUSE**
NEURO CONSULTATION

SPEECH

NYSTAGMUS

CRANIAL NERVES: -(Eyes)III, IV, VI, (Other)VII, VIII, IX, X

5 D'S: Diplopia / Dysmetria (+ GAIT) / Dysarthria / Dysphonia / Dysphagia

UL/LL

NO

PERIPHERAL CAUSE

ACUTE TIMING AND TRIGGERS

RECURRENT | **PROLONGED**

SPONTANEOUS		TRIGGERED
MENIERE'S	VESTIBULAR MIGRAINE	BPPV
HEARING LOSS VERTIGO DROP ATTACKS	FAMILIAL HISTORY MIGRAINE>2 EPISODES	SHORT DURATION POSITIONAL +VE DIX HALLPIKE +VE SUPINE ROLL TEST

HINTS	
ACUTE VESTIBULAR NEURONITIS	CEREBELLAR
GRADUAL ONSET +VE HEAD IMPULSE TEST	SUDDEN ONSET -VE HEAD IMPULSE TEST

ARE THERE ANY NEURO SIGNS?

EXCEPT

UNILATERAL NYSTAGMUS,+VE RHOMBERG, +VE HEAD IMPULSE

YES → **CENTRAL CAUSE**
NEURO CONSULTATION

SPEECH
NYSTAGMUS
CRANIAL NERVES: -(Eyes)III, IV, VI, (Other)VII, VIII, IX, X
5 D'S: Diplopia / Dysmetria (+ GAIT) / Dysarthria / Dysphonia / Dysphagia
UL/LL

NO → **PERIPHERAL CAUSE**

- **Long Tract signs-** Beware as less than half of patients with stroke have limb signs.
- **GAIT**- Patient with central causes of vertigo will usually not be able to stand.
- **Truncal Ataxia**: Central
- **SPEECH**- Beware as less than half the patients have dysarthria.
- **EYES**-
  - Nystagmus
    - Unidirectional vs. bidirectional
    - Vertical
    - Fatigue ability
    - Diplopia - Diplopia is obviously abnormal.
    - Skew- Vertical misalignment of the eyes indicates brainstem pathology.
- **Dix Hallpike**
- **Head Thrust Test**
- A normal head thrust test in vertigo indicates central causes.
  - It can occur in lateral pontine strokes.

Manoeuvres

ARE THERE ANY NEURO SIGNS?

YES

CRANIAL NERVES | LONG TRACT SIGNS
GAIT ISSUES | TINNITUS,HEARING LOSS |NYSTAGMUS EXCEPT
SIMPLE HORIZONTAL
PLUS TEST OF SKEW

NEURO CONSULTATION

NO

IS THERE A HEADACHE?

UNLESS MIGRAINE

YES

NO

SOLITARY VERTIGO

YES

BPPV	ACUTE VESTIBULAR NEURONITIS	CEREBELLAR
SHORT DURATION POSITIONAL +VE DIX HALLPIKE +VE SUPINE ROLL TEST	GRADUAL ONSET +VE HEAD IMPULSE TEST	SUDDEN ONSET -VE HEAD IMPULSE TEST

OSCE 13

Candidate Information

You are a new consultant working in a tertiary hospital. The evening consultant, is several hours late for his shift. The Department secretary has attempted to call as you don't know him personally, but comes out soon after and is upset as he has been yelling at her on the phone for calling him.

You cannot discuss this immediately with your Director as it is his rostered day off.

On arrival, the consultant yells loudly in the Department; "Who asked the secretary to call me?"

When you indicate that it was you, he approaches you in an aggressive manner and continues to speak to you in a loud and aggressive voice. You explain that you don't appreciate being yelled at and were simply concerned that he did not know about his shift or that he was OK. You notice that he smells of alcohol. You let the consultant know that this is not the right environment for this discussion and ask to see him privately in a consultant's office.

The OSCE will examine the Domains of:

Medical Expertise
Prioritisation and Decision Making
Communication

Marking Criteria

Domain	Criteria for High Rating
Medical Expertise	• Identify issues with alcohol and mental health • Will need mental health assessment- done separately and privately
Communication	• Empathy • Privacy • Professional behaviour • Communicating that behavious is not acceptable • Inform colleague of the event having to be reported- AHPRA, Director

Prioritisation and Decision Making	• Ensure patient safety in department if consultant down
	• Ensure colleagues well being.
	• Relieve the consultant of duty
	  ○ Seek causes- ensure at minimum psych review
	  ○ Advise Director
	  ○ Give days off- medical certificate
	  ○ Call son to take home if psych happy
	• Cover the department
	  ○ Call other consultant in
	  ○ Call Director in
	• Document conversation
	• Reporting
	  ○ Must discuss with Director
	  ○ AHPRA mandatory reporting