Joondalup
Health Campus
Part of Ramsay Health Care


# Fellowship OSCE Exam Handbook

2020.2

Joondalup Health Campus

Emergency Department

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Joondalup Health Campus
Part of Ramsay Health Care

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# 1. Introduction-

This handbook is prepared using the information provided in the ACEM website about the fellowship clinical exam and the experiences of the candidates, examiners and confederates of the exam. The purpose of this manual is to bring all the information together in one place in a concise manner, so it is easy to follow and help candidates develop a framework to prepare for the exam.

In the manual we will discuss the domains of assessment as described by the college, identify various OSCE formats, discuss each OSCE type and how to structure the OSCE around the domains. A comprehensive list of all the past OSCEs are presented, sorted by type.

Your everyday practice in emergency department should not be different from how you approach an OSCE for the exam. The OSCE should reflect your day to day practice. This manual will help you to structure your study for the exam and consolidate your knowledge. By now you should be an expert in your field and the emphasis should not be on acquiring more knowledge, but on mastering your skills. It is not only important to be a medical expert in emergency medicine but also be able to show that to the examiners.

Be a consultant, engage more with difficult patients and complex decision-making processes at work. Teach junior doctors on the floor and get feedback from Colleagues. Consider every presentation and every patient you see in the Emergency Department as an OSCE. There is no alternative to learning on the job in the medical profession.

## 2. Eligibility criteria-

Candidates must meet all the following criteria to be able to sit fellowship exam-

1. Be a registered and financial trainee of the college
2. Have current registration of practice in Australia or New Zealand
3. Have completed 36 months of accredited advanced training time prior to the closing date of the application
4. Have successfully completed trainee research requirement
5. Have successfully completed the fellowship written exam

## 3. Examination processes and procedures-

### 3. 1 Examination Format-

Clinical examination duration- 132 minutes

Number of stations- 12 stations over two days, 6 stations each day.

Each OSCE will be of 11 minutes duration- 4 minutes reading time, 7 minutes for assessment

Each OSCE has at least 2 domains of assessments

Since 2018, the resuscitation or simulation stations are now undertaken as single station

### 3. 2 Marking method-

The OSCE exam is marked following the principles of the borderline regression method

Each OSCE has two types of ratings-

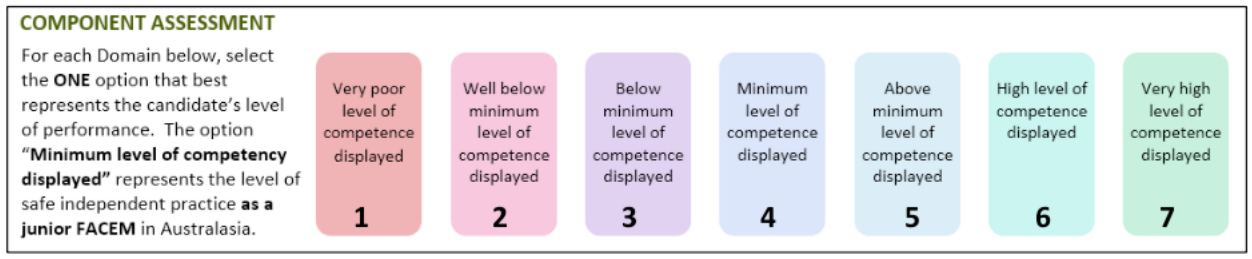
1. **Domains ratings-**

   The domain ratings measures candidate's performance in each domain, against the provided numerical rating scale.

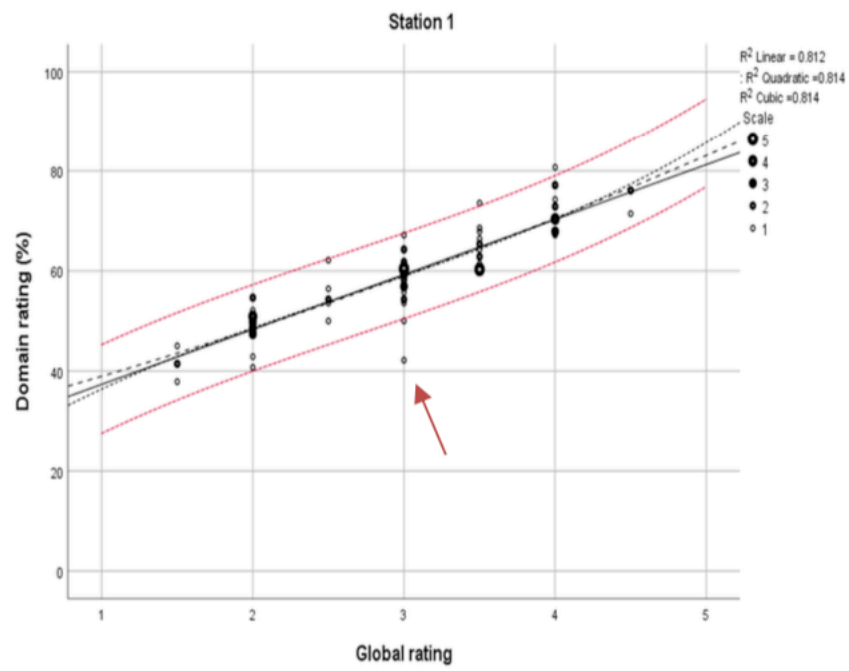
2. **Global rating for the station-**

   Global rating is assigned as per examiner judgement of the candidate's overall performance. The global rating scale has 5 ratings as below.

Domain Rating-




Each candidate ends up having 2 scores for each station. The scores of all the candidates are plotted on a liner regression graph and a line of best fit is determined on that graph. This gives a passing score for that individual station.




The passing score of the OSCE examination is determined by adding all the individual station scores together and adding one standard error of measurement (SEM) to obtain a passing score. Unlike previous exams, from the 2019.1 sitting, candidates do not have to pass a minimum number of stations to pass the exam.

## 3. 3 Exam day process-

The candidates are usually divided in to 2 or 3 cohorts.

Each cohort then further divided into sub cohorts and a specific start time is given to each Candidate.

After registration in the front desk of the AMC center, the candidates are given information about the process of the exam and housekeeping details. Due to the Coronavirus pandemic the 2020.2 Fellowship clinical examination will be organized in the individual state venues.

Depending on the start time, the candidate may have a quarantine time around the exam either before, after or both.

## 5. Domains of Assessment-

As a candidate it is very important to understand the domains of an OSCE, as these are the basis of which the assessment will be made. There are 8 main domains. Key principles of the domains are given below:

**1. Teamwork and collaboration**

- Developing and maintaining rapport
- Communication techniques
- Involving the team members in the decision-making process

**2. Communication**

- Developing rapport
  - Introduce self
  - Establish concerns/needs/issues
  - Demonstrate empathy
  - Consider- sexual, cultural, religious, economic factors
  - Involve patients/ relatives in decision making
- Communication technique
  - Appropriate language
  - Use of appropriate verbal and non-verbal skills
  - Emphasise the key elements
  - Use of de-escalation techniques
- Appropriate response to the patient
  - Active listening
  - Allow time to respond
  - Respond to non-verbal cues

- Invite questions
- Summarise the information
- Provide information sheet/ Education

**3. Scholarship and teaching**

- Learner-teacher relationship
  - Check prior knowledge
  - Establish learning goals
  - Structured approach
  - Establish rapport
  - Active participation
- Teaching technique
  - Establish learner's level
  - Appropriate language
  - Use of appropriate teaching modalities
  - Evidence based approach
- Ensures learners understanding
  - Check understanding
  - Invite questions
  - Summarise the key elements
  - Suggest learning tools
  - Arrange follow up

**4. Prioritisation and decision making**

- Prioritising assessment and management

- Assessing clinical risk
- Justifying clinical decision making

**5. Medical expertise**

2 subdomains

- Assessment and diagnosis
  - History
  - Physical examination
  - Investigations- Bedside, Lab, Imaging, Special
- Management
  - Resuscitation
  - Definitive management
  - Supportive management
  - Consultation, disposition and handover

**6. Leadership and management**

3 subdomains-

- Operational management on the floor
  - Clinical supervision
  - Patient flow and departmental workload
- Patients complaints
  - Bedside response
  - Complaint procedure
- Patient safety and quality management
  - Quality management

- Use of audit and M&Ms
- Patient safety principles

**7. Professionalism**

- Medicolegal framework
  - Duty of care
  - Informed consent
  - Prescribing restricted drugs
  - Involving coroners
  - Abiding court orders
- Ethical principles

**8. Health advocacy**

- Incorporates patient's chronic conditions in decision making
- Patients' advocate
- Utilise clinical decision-making tools
- Implement strategies to prevent premature discharges
- Provide clear discharge instructions
- Cultural competency
- Incorporates vulnerability factors in the clinical management and disposition
- End of life discussion

(*Adopted from the ACEM domains document for Fellowship clinical examination*)

# Domains

## Communication

- Introduce yourself
- Establish needs/ issues/ concern
- Clear information in appropriate language
- Allow time to respond
- Invite questions
- Consider- cultural, religious, sexual and economical factors
- Summerise
- Provide information sheet

## Prioritisation and Decision Making

- Prioritising assessment and management
- Assessing clinical risk
- Justifying clinical decision making

## Health Advocacy

- Patients Advocate
- Consider chronic illness and patient factors developing management plan
- Preventing DAMA
- Cultural competency
- End of life discussion

## Medical Expertise

## Leadership and Management

- Operational management on the floor
- Patients complaints
- Patients safety and quality management

## Professionalism

- Medicolegal framework
- Ethical principles

## Teamwork and Collaboration

- Developing and maintaining rapport
- Communication technique
- Involve in-patient teams and allied health facility

## Scholarship and Teaching

- Establish Prior learning
- Establish Goals
- Appropriate language
- Ensure understanding
- Follow up and reading materials

# 6. Types of OSCE

6.1 Communication

6.2 History taking

6.3 Physical examination

6.4 Procedure and equipment

6.5 Clinical synthesis and management

6.6 Simulation

6.7 SCBD

## 6. Type of OSCE-

After reviewing the Fellowship clinical examination reports we have identified these following types of OSCEs-

1. Difficult Communication
2. History Taking
3. Physical examination***
4. Procedures and equipment
5. Clinical synthesis and management
6. Simulation***
7. Standardised Case Base Discussion (SCBD)

We can further divide the OSCEs in to following categories

1. Paediatrics
2. Administration
3. Teaching

**Benefits of segregating the OSCE types-**

1. Easy to organise the preparation and practice
2. Helps with time management and to prioritise them according to your level of comfort around a certain topic
3. Helps to apply a generic structure to a type specific OSCE and adopt according to the questions asked

(****Due to the Coronavirus pandemic these 2 stations will be modified in 2020.2 sitting, further information is provided in the later sections*)

**The common domains which are assessed in various types OSCEs are put together in the table below-**

| Types of OSCE | Domains of assessment |
|---|---|
| **Difficult Communication** | Medical expertise<br>Communication<br>Professionalism<br>Health advocacy |
| **History Taking** | Medical expertise<br>Communication<br>Professionalism<br>Health advocacy<br>Teaching and Scholarship |
| **Physical Examination** | Communication<br>Medical expertise<br>Professionalism<br>Teaching and scolarship |
| **Procedures and Equipment** | Medical expertise<br>Prioritisation and decision making<br>Teaching and scholarship<br>Communication<br>Health advocacy |
| **Clinical synthesis and Management** | Medical expertise<br>Communication<br>Teaching and scholarship |
| **Simulation** | Teamwork and collaboration<br>Prioritisation and decision making<br>Leadership and management<br>Medical expertise<br>Communication<br>Professionalism |
| **Standardised Case Based Discussion** | Medical expertise<br>Prioritisation and decision making |

**Structuring your OSCEs-**

It is very important to develop your own method to approach the OSCEs. Time is a critical factor, and if the answer is not structured the examiners will find it very difficult to follow your thought process. In the following section a way to approach an OSCE is discussed.

**4 minutes of reading time-**

- The 4 minutes reading time is crucial to your subsequent performance. Use it wisely. This is a suggested step-wise process to utilise those 4 minutes.

- Step 1. Read the Domains first. Decide what components you have to cover and how many marks are allocated for those domains

- Step 2. Read the tasks. How many tasks are there? Decide how much time you are going to spend on each task.

- Step 3. Read the stem carefully, each word and each phrase are there for a reason. Determine which type of OSCE it is and try to relate the important words, phrases, tasks and domains

- Step 4. Prepare a structure for your answer- make sure you remember the tasks and domains that you have to cover.

**7 minutes of assessment time-**

- Behave like a consultant.

- Apart from the SCBD and Examination stations you will not be interacting with the examiners dierectly. As you enter the room, hand your sticker sheet over to the examiners.

- Introduce yourself and develop a rapport with the confederate. Carefully choose your words and if possible, sign post your tasks. This not only helps the examiner to understand your approach but also helps you to maintain your structure.

- Listen to the confederate carefully, if he or she is saying something, there is a reason behind it. Either you are not on course or there is more information to be given.

- Learn to adapt, use the generic structure for each type of OSCE but don’t be rigid.

- The last minute is to summarise your answer. But if you have not completed your tasks, at least mention the big headings before you finish.

## 6.1 Difficult Communication-

***Dr. Ps Bhowmik, FACEM***

**General advice-**

- There will be at least one station for difficult communication where you have to interact with either patient or relative, your colleague or a junior doctor. These OSCEs can be particularly challenging. It is difficult to have a sensitive discussion in a time pressured environment. Following are the various type of difficult communication scenarios asked in the previous OSCE exams-

1. Breaking bad news- e.g. new diagnosis of cancer or other life-threatening condition, Death of a family member

2. Ceiling of treatment and goals of care- e.g. severely unwell elderly patients, end stage disease process with significant deterioration

3. Complaints- e.g. missed diagnosis, professional misconduct

4. Difficult situations- e.g. non accidental injury presentations, unrealistic expectation, obstructive in-patient registrar or consultant

- Practice makes a man perfect. Practice various difficult scenarios several times, create a structure for each kind of situation. When working on the floor use every opportunity to expose yourself to these situations, ideally with senior/supervisor support to get feedback on your communication style and areas of improvement.

**4 minutes reading time-**

- Try to structure your task, identify and anticipate the factors which will make it a difficult communication, develop a strategy to overcome them.

- Remember the medical expertise component if it is mentioned in the domain, and plan how you are going to incorporate that information during a sensitive discussion.

**7 minutes assessment time-**

- Introduce yourself, explain why you are there and what is your role. Choose your words carefully, be polite and empathetic and do not mirror the confederate's agitated/ aggressive behaviour.

    e.g. if the confederate is pacing in the room and looks agitated, sit on the chair and encourage the confederate to sit as well.

- Don't rush to complete your task, actively listen if the confederate is giving you more information. Remember all those stations are workshopped extensively, they are not

going to waste your time unnecessarily. Pace yourself, use pauses when appropriate, give the confederate time to understand and process the information. If you are pausing after breaking bad news, think of some phrases to recommence your conversation,

*e.g. "when you are ready let me know, I have some more information to give you"* to save time.

- Use appropriate body language, and non-verbal communication techniques, talking less is usually more beneficial. Give clear, concise information. If you are not sure about your own opinion about a certain situation it will be quite obvious in your answer, so make a decision and work around it.

  e.g. *we will do everything which is medically appropriate in this situation…we will make sure your mother is comfortable, we will arrange..(*analgesia, sedation, hydration, oral and skin care, religious support)

- Avoid blaming others or the patient. If a mistake was made, state that clearly without unnecessarily justifying it.

  e.g. *I am sorry we missed the fracture.. from here on I want to make sure we provide you the best treatment.. we take these incidences very seriously and I assure you we will appropriately investigate it… we take them as learning opportunities to improve our practice and to prevent similar mistakes in the future*

- Put yourself in the shoes of the patient, what would you like to hear from your doctor, that will be the best guide in a difficult situation.

## Difficult Paediatric Communication-

***Dr. Michael Lovegrove, FACEM, PEM***

Paediatric cases will comprise about 25% of the exam, which means that it needs to be covered well, but not compromise your time to learn adult emergency medicine. Having said that, there is no substitute for knowledge and trying to fake it will come unstuck. Learn the big items with appropriate paediatric differentials, and always think about NAI/family issues which are slightly more unique to paediatric cases.

Your approach is always to be nice, use simple language with no jargon and be responsive to the confederate's information. Remember to introduce yourself to everyone in the room and speak at eye level to the family. Work out your resources early, address immediate needs early, and signpost the things that you are worried about so the confederate (and the examiners) know what you are looking to deal with during the 7

minutes. Call for help (if appropriate) early but make it clear that you have a plan for management until help arrives (not just trying to off load it all).

Breaking bad news requires a very early development of rapport, but otherwise is not very different from other situations, except to realise there is a child involved, so the stakes are relatively high. Always be on the lookout for NAI, but don't assume it is always there. With discussions around NAI keep your goals clear, work with the confederate to work out what has happened but take control of the discussion and make sure that the outcome is in the child's best interest. Always check Xrays and props for concerning features which may not be immediately obvious.

## 6.2 History Taking-

***Dr Fiona Beattie, FACEM***

**General advice-**

The station can involve you taking a history from a patient or a parent, obtaining a history from a JMO who has seen a patient or going through history taking with a JMO. It may also involve MSE on a behaviourally disturbed patient.

**4 minutes of reading time-**

- All information that is provided in the stem is relevant.
- From the stem you should have some idea what the case entails. You should be thinking of causes, risk factors and complications of the presentation and ask necessary questions to identify these.

**7 minutes of assessment time-**

- Good communication will be portrayed by building a rapport with the confederate, being non-judgmental and empathetic, actively listening and asking open ended questions.
- Start with a broad open-ended question and allow the confederate to talk. Try to keep your questions open ended and then move onto more closed ended questioning if you are running out of time or you need more specific details.
- In order to demonstrate your medical expertise, you need to use a structured approach that is easily followed by the examiner. Your history must be thorough, relevant, focused and timely.
- Remember the confederate will give both verbal and nonverbal cues. These are so relevant especially if you are going off track. Respond to these appropriately. Give the confederate opportunity to ask questions and explore their concerns and ideas about their presentation and what impact it has had on them. Remember to use layman's term.
- If the station involves a behaviourally disturbed patient, you might need to verbally deescalate the patient before they will talk to you.
- It is unlikely that you will have to examine the patient, and you will probably not present your findings to the examiner, unless you need to give a handover to another speciality. Instead your summation of your history is back to the confederate.
- Remember to include the investigations you would like to do as well as a brief summary of the management including disposition and health advocacy. The summation back to the patient will need to be done in layman's terms.

## 6.3 Physical examination-

***Dr. Ignatius Munjodzi, FACEM***

### COVID 19 Modification

**Introduction**

- Given the current COVID-19 pandemic, the examination OSCE station has been modified to comply with national/state restrictions and social distancing requirements.
- Candidates will only interact directly with the examiner and will be required to **describe** rather than **demonstrate** the physical examination and findings
- This station will assess whether you can competently conduct a clinical examination to establish a diagnosis, its severity and associated complications.

**Format of the physical examination station**

- Interaction between the lead examiner and candidate
- You will be presented with a clinical problem in the candidate instructions
- Pertinent history is usually given and no further history taking is necessary
- Candidates will be expected to describe and explain every step along the way a competent focused examination which is expected to identify the pathology
- The examination standard is that which a competent FACEM would perform in the workplace rather than a complete medical student short case system-based exam
- Examination findings only of the aspects you have covered will be presented to you by the examiners
- You will be expected to synthesize the findings to come up with the diagnosis/differentials, further investigations and management with justification

**Marking criteria**

- Based on medical expertise, prioritisation and decision-making domains

**General advice-**

- The format of the Physical examination station has been changed since 2019.2 OSCE examination. It has been modified to improve the communication between the examiner and the candidate to enhance the effectiveness of the station. In this station the candidate will now interact directly with the lead examiner who will provide instructions or ask questions. There will be a role-player with no signs or symptoms present in the room as well, to demonstrate your physical examination. Please refer to the ACEM website for more information.

- 'Talley and O'Connor' is the recommended text and forms the basis of physical examination

- Know how to examine the major systems i.e. Cardiovascular, respiratory, gastrointestinal, musculoskeletal, central and peripheral nervous system. Appropriately modified approach in trauma.

- Develop your routine and practice, practice, practice until it becomes second nature

- Focused, organised and efficient examination

- You must be able to elicit important positives and negatives

- Helpful to do a running commentary

- Summarise findings succinctly at the end including important positives and negatives and generate differential diagnoses

**4 minutes of reading time-**

- Read the question carefully

- Note the history and vital signs if given

- Based on the history, formulate some differentials and determine which examination to perform

- The examination is quite often associated with other domains i.e. teaching and scholarship, communication, prioritisation and decision making

**7 minutes of assessment time-**

- Things to remember
    - Courtesy towards your patient and family

  - Hand hygiene before and after
  - Adequately exposing your patient to complete the necessary examination whilst maintaining their dignity
  - Note the vitals, charts infusions etc.
  - Wear gloves when assessing lacerations/open wounds

- Perform the examination efficiently. Explain and mention the reason for performing certain examination as you go, it will help the examiner understand your approach.

- According to the stem structure your response, think about your differential diagnosis, sign post your components of tasks if possible then perform relevant examination with clear explanation, why you are performing that examination and what are you looking for.

## 6.4 Procedure and Equipment

***Dr Clare Dibona, FACEM***

**General advice-**

There will be at least 1 procedure or equipment station in the exam. Usually in those stations apart from medical expertise, teaching and scholarship is also included in the domains. By this stage of your training you should be comfortable with most of the procedures performed in emergency department. Go through the ACEM list of procedure, practice them regularly, follow a structure to remember all the important aspects of the task.

**Procedure Proforma**

**Set the scene-**

Introductions/manage expectations/outline the aims

Prior Experience Check

Departmental considerations: acuity, time and resources

- **Preparation-**
  - Staff
  - Area
  - Equipment and Drugs
- **Patient-**
  - Indications, contraindications, consent/complications
  - Assessment: AMPLE, examination, check relevant investigations
- **Procedure-**
  - Sterile/ Sedation/ Analgaesia
  - Anatomical approach
  - Demonstrate the procedure in real time without talking
  - Repeat the procedure slowly explaining the steps
  - Learner will perform the procedure

- Give the steps including troubleshooting
- Check for understanding at different points

- **Post Procedure Care-**
  - Make a time to meet up again
  - Recap/Resources
- **Documentation**

## 6.5 Clinical Synthesis and Management-

***Dr Yuresh Naidoo, FACEM***

You will be required to interpret History/Examination or investigation findings and come up with a management plan. Then discuss this with a junior, a patient or another team.

**General advice-**

- This is closely related to normal practice and what you do every shift. Therefore, the opportunity is there to practice this with each shift.

- Get in the habit of making a decision, either Positive or Negative (e.g. Indications for a scan or not for a scan). What is being tested is your ability to make a reasonable decision given the information and be able to justify that.

- Pattern recognition is important so lots of practice. Online modules for ECG, Laboratory and Imaging are excellent sources, especially our own JHC site: http://www.emergucate.com

- Communication of key points and appropriate language with patients, junior staff is another key component. This is especially when discussing options with patients i.e. Investigation choices and treatment/disposition options

- If the domain is “Scholarship and Teaching” then this requires a few additional questions:
    - Establish what level of training they are at
    - Establish level of prior knowledge
    - Offer them a chance to tell you what they know
    - Give them a framework to look at ECG, VBG, Image
    - Offer them a chance to ask questions as they will direct you to specific information required
    - At the end direct them to other resources/further learning opportunities

**4 minutes of reading time-**

- Firstly, forget what just happened in the previous station

- Focus on the information in front of you on the screen or hard copy

- Make sure you read ALL pages and any props, ECG's or Images that maybe at the BACK of a page (if hard copy)

- Make sure you do all the calculations for e.g. VBG / Paediatrics during this reading time

- Establish a structure of a few dot points that your answer should follow once in the room

**7 minutes of assessment time-**

- The question will be on a screen in the room and a laminated sheet within reach. Good practice is to refer to screen to remind yourself of tasks(questions) or hold the laminated sheet in your hand as a quick reference

- Listen to the information from the Confederate to complement/support the framework you have in your head. DO NOT IGNORE information the confederate provides you

- If interpreting a test, then lead with the obvious that stands out. Nothing is TOO simple or TOO basic.

- There are no tricks so do not overthink it. Candidates fail because they do not mention the simple and obvious, eg. If it's a STEMI, say it's a STEMI up front.

- Pace yourself, speak clearly and from the First person.

  e.g.*" It is my practice…OR…I will do this". Not "...the evidence says one can go LEFT or RIGHT."* Say which way YOU will go and why.

- Remember the buzzer at 6 minutes is your only Time warning. Use it to look at the Question to make sure you have addressed ALL the tasks. You can fail if you do one question very well and ignore the others.

## 6.6 Simulation

***Dr Yusuf Mamoojee, FACEM***

### COVID 19 Modification

### Introduction

"Where COVID-19 restrictions are in place in any examination location at the time of the Fellowship Clinical Examination (OSCE), station modifications will be in place and these modifications will apply for all candidates sitting the examination, irrespective of their sitting location. Candidates enrolled for these examinations will be advised directly where these provisions are in place for their examination. In this event the OSCE Simulation stations will be replaced by Standardised Case Based Discussion (SCBD) stations, that will cover the same content. Note: The following section describes the format of the Simulation stations when COVID precautions are NOT in place." (*Appendix 3. ACEM- OSCE Candidate guidelines- Simulation station- COVID 19 version*)

### Format of the modified simulation station to SCBD

"If the Simulation is replaced by the SCBD, the domain criteria being assessed will change. The SCBD format does not assess Teamwork & Collaboration. This will be replaced with an alternative domain e.g., a second Medical Expertise Domain:

- Medical Expertise: Initial assessment and management
- Medical Expertise: Further management
- Prioritisation and Decision Making"

*(Appendix 4. ACEM- OSCE Candidate guidelines- Further information regarding the OSCE Simulation station- COVID 19 modification)*

A further illustration of the possible modification of the simulation station to SCBD is given in the ACEM documents (*Appendix 4*).

## General advice

There will be a maximum of two simulation stations in the exam, 11 minutes each. It is not possible to fully manage a complicated resuscitation scenario in 7 minutes, nor is it possible to assess a candidate on comprehensive management during this time. You will usually be presented with a scenario in which one or two components of the management of the patient requires Consultant level input.

**4 minutes of reading time-**

- Utilise 4 minutes reading time, anticipate what you may be confronted with. It is important to suspend disbelief and immerse yourself in the scenario to ensure optimal performance.

**7 minutes of assessment time-**

- These simulation scenarios are low fidelity and the mannikins are usually hands off for you. Introduce yourself quickly and confirm the confederate roles (the roles may be clearly articulated in the scenario).

- The patient and team are usually already in the room and there is no requirement to arrange your team in this case. You will be required to make a rapid assessment of the situation and then apply any appropriate intervention.

- Take control of the situation, verbalise your thought process, if possible, sign post your management steps;

  *e.g. We are dealing with XYZ, I am anticipating …from here on we are going to do….*

- Give clear instruction to the confederates, mention end points where appropriate and use the close loop communication technique.

- Confederates are usually FACEM role players and nurses, who will understand the scenario. No additional information will be provided unless prompted by your enquiry or if the scenario needs to be progressed.

- Confirmation of instructions may not necessarily indicate an error, but you must be able to distinguish this from a prompt. Any appropriate procedures will be performed by the confederates under your instruction unless otherwise stated in the question brief. These will usually be limited and often simulated.

- Leading a resuscitation team is a core skill of an ED physician. Practice this regularly and carefully but remember that the best preparation is what you do in everyday practice in the ED. As an Emergency Physician you should be an expert in this kind of scenario.

- There are some aspects of simulation scenarios which require an almost perfect score to achieve the standard. An example of this is the ALS pathway for cardiac arrest including shockable and non-shockable rhythms (i.e. “the defib dance”) and witnessed arrest pathway.

## 6.7 SCBD

***Dr John Larkin, FACEM***

**General advice-**

- Think about why your answer is at consultant level.
    - What separates your answer from that a student, intern or RMO would give.
    - Try to contextualise general statements

    *e.g. why is a social history relevant in this case? what specifics on past history would you want to know and why?*

    - Present big headings first then fill in the details
    - Time efficient and allows examiner to move you on
- Speak clearly and concisely
- Take a second to think about what you are going to say
- Speech tempo - very individual, get some feedback, too slow and you won't cover everything too fast and it can be hard to keep track

**4 minutes of reading time-**

- Read the question carefully
    - What are the key points in the stem - there are no wasted words
    - What have they asked / what is the opening question
- Construct your opening statement and framework
- Don't try to guess too much where the station will end up

**7 minutes of assessment time-**

- Summarise the key components of the stem and your synthesis of them
- Give the major headings of what you are going to talk about then fill in the details

    *e.g. management of this patient includes - fluid resuscitation, early iv antibiotics, source detection and control, establish ceilings of care - for fluid resus I would give*

*x ml of x fluid to an end point of, my preferred antibiotic would be iv tazocin 4.5g as this will cover x y z ……*

This also facilitates examiner prompting: Where a candidate has already raised a topic or an issue, the examiner may provide an unscripted probe to the candidate for further clarification or elaboration on that issue.

- Unless asked to give a selection of options stick to what you are going to do
- Have a framework for administration question-
    - Complaint, system failure / review, audit

# 7. OSCE examples

7.1 Communication

7.2 History taking

7.3 Physical examination

7.4 Procedure and equipment

7.5 Clinical synthesis and management

7.6 Simulation

7.7 SCBD

## 7.1 Communication

### Candidate Instruction-

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 discuss your assessment and proposed management with the patient's only daughter.**

**This OSCE will assess the following domains:**

Communication (60%)

Health Advocacy (20%)

Prioritisation and Decision Making (20%)

***(Fellowship OSCE exam 2016 1B)***

## Role player instruction-

### 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 patient’s 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 (was 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)***

## Examiner's Instruction-

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 Advocac**y-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.

## 7.2 History taking

### Candidate Instruction-

You have just started evening shift on floor and your intern has come to you asking for an advice. She is about to go and see a patient who is young 28 years old female with complaint of left sided abdominal pain since this morning. Intern has not come across patients with this presentation before and she wants to discuss with you how to approach this patient and take history.

**Your tasks are to discuss with intern the history taking and differential diagnosis in this patient.**

**This OSCE will assess the following domains-**

Medical expertise (50 %)

Communication (20 %)

Teaching and scholarship (30%)

***(Dr Hassan Zahoor, FACEM)***

## Role player instruction-

You are an intern doing first term in ED. You are about to go and see young 28 years old female with left sided abdominal pain. You have not come across patients like this before and therefore need an approach to history taking and differential diagnosis.

You have been told that patient is hemodynamically normal with HR 80, BP 130 systolic, and her pain is under control after oral analgesics. She is been looked after by a nursing staff who is placing an IV cannula.

Candidate should start by a list of differential diagnosis preferably (but can also talk about history taking first and then DD afterwards), and if not told by the end of 2 minutes you should say,

***"What are the likely causes of this pain in this patient?"***

Candidate may explain a list as pregnancy related and non- pregnancy related causes or may not mention them separately.

After a list of differential diagnosis candidate should explain-

Start with open ended questions.

Take history of "pain" itself i.e. onset, time, nature, radiation, associated symptoms.

Candidate should further explain how to corelate, characteristics of pain and associated symptoms and differential diagnosis.  If not mentioned you should ask,

***"how the characteristics of pain and associated features will help me to come to a diagnosis, i.e. Ovarian origin, miscarriage, PID."***

Candidate should include all the components of history, i.e. past medical history, medication, allergies, social history, and gynaecological history including contraception and sexual history, if not asked by end of 5 minutes you can prompt them by saying,

***"What are other things on history that I should ask the patient?"***

If not told towards the end you can prompt by saying,

***"Are there any resources for common ED presentations that I could use in future? i.e. book, blog, website, department tutorials etc."***

Candidate then should conclude the station by instructing the intern to perform physical examination and arranging appropriate investigations for the patient. Details of examination and investigations are not needed.

## Examiner's Marking key-

| Domains | Expected Response | Minimum Requirement |
|---|---|---|
| **Medical expertise** | Introduces himself<br>Confirms haemodynamic stability and ensure pain relief given.<br><br>Starts with differential diagnosis (may divide non pregnancy vs pregnancy related).<br>Pregnancy related: **Ectopic**, miscarriage,<br>Non pregnancy related: pyelonephritis**, infected obstructed kidney stone**, **PID**, cystitis. Renal colic. **Ovarian torsion**, ovarian cyst rupture, colitis, IBS.<br><br>Talks about history taking in a structured manner with HOPI describing features of pain (onset, nature, severity, radiation, associated symptoms, nausea, vomiting, PV bleed, discharge) generally and then explaining according to **all** differential diagnosis. E.g. in infected obstructed kidney stone pain will be colicky, and patient will be clinically unwell (septic) with fever, and risk of haemodynamic instability.<br><br>Completes rest of the parts of history taking i.e. past medical, medications, allergies, social history, gynaecological including contraception and sexual history. | Introduces himself<br>**Must** Confirm haemodynamic stability given ectopic pregnancy is important differential.<br><br>Ensure pain relief has been offered or planned shortly.<br><br>**Starts with differential diagnosis should name at least 6 DDs**, **must include ectopic pregnancy, infected obstructed kidney stone, ovarian torsion and PID.**<br><br>Should talk about components of history taking, and then address relevant features of pain and associated symptoms of at least above **6** differential diagnoses.<br><br>Failure to specifically address each DDs features on history will cost marks on medical expertise.<br><br>Should complete rest of the components of history taking Taking i.e. past medical, medications, allergies, social history, gynaecological including contraception and sexual history. |

| Domains | Expected Response | Minimum requirement |
|---|---|---|
| **Communication** | Introduces him / herself.<br>Is clear that intern is about to go and see patient rather than has already seen the patient and wants to discuss.<br><br>Clear explanation of history components in general and in particular with Differential diagnosis.<br><br>In between checks about understanding<br><br>Finishes discussion with opportunity to ask questions if any. | Introduces him / herself.<br>Is clear that intern is about to go and see patient rather than has already seen the patient and wants to discuss.<br><br>Maintains a tone which is appropriate for discussion and teaching at same time.<br><br>In between checks about understanding<br><br>Finishes discussion with opportunity to ask questions if any. |
| **Teaching and scholarship** | Introduces him / herself.<br>Establishes prior learning and confirms level of training.<br><br>Stops and checks for any questions in between discussion and that intern is following explanation.<br>Ask about any questions at the end.<br><br>Finishes discussion by giving information about resources i.e books, website, intern teaching etc. | Introduces him / herself.<br><br>Establishes prior learning and confirms level of training.<br><br>Clear listing of DD.<br><br>Stops and checks for any questions in between discussion and that intern is following explanation.<br><br>Finishes discussion with proving to an opportunity to ask any question. |

## 7.3 Physical examination-*

### Candidate instruction-

You are a consultant working in an urban distract ED. You are working in the fast track area for the day. An Intern has seen a patient with a penetrating wound to the volar aspect of their right wrist after falling on a glass the night before. The intern has taken a history and removed the dressing over the wound but is unsure about how to further assess and manage this patient.

**Your tasks are:**

- **Take relevant history from the intern doctor about the patient**
- **Describe to the examiner the focused clinical examination you would like to perform in response to the clinical information provided**
- **Outline your approach for investigation and management of similar presentations**

**The OSCE will assess the following domains-**

Medical Expertise

- History taking (10%)
- Clinical Examination (50%)
- Investigation and management (20%)

Prioritisation and decision making (20%)

***(Adapted from WA OSCE Mock Exam 2019.1, JHC station)***

***COVID 19 modification- Describe the examination instead of demonstrating in a normal person.***

## Role Player instruction-

You are an intern who has done 2 weeks of ED. Today you are working in the fast track area. You feel very unsure of the pathology you are seeing today in the fast track area. Even though the patients have non-life-threatening problems you don't feel confident in the assessment and management of many of the cases. You have just seen a 26 year-old male who while intoxicated last night fell with a glass bottle in his hand sustaining a penetrating injury to the volar aspect of the wrist. His ADT is not up to date and he has no allergies. He is right-handed and works as an electrician. You have removed the dressing from the wound. There is a 1cm wound across the volar aspect of the distal wrist. There is no active bleeding from the wound. You have not assessed the patient further.

Candidate should ask for the relevant history of this particular presentation and describe the examiner the focused clinical examination to the examiner. Do not volunteer any information that you already know about the patient, unless asked by the candidate.

Prompt-

If the candidate has not asked all the relevant history about the presentation, confederate can ask-

*"Is there anything else I should ask before examining the patient?"*

## Examiner's instruction-

The candidate is expected to take a focused history from the intern, describe the clinical examination and provide an approach for investigation and management of the patient with a non-life-threatening laceration of the volar aspect of the wrist.

**Part 1- History 1 minute**

**Part 2- Describe clinical examination- 4 minutes**

If the candidate has not started describing the clinical examination by 2 minutes-

"*Please describe your clinical examination for the patient with the provided clinical information."*

**Part 3- Approach to investigation and management – 2 minutes**

If the candidate has not started outlining the approach for investigation and management of laceration of the volar aspect of the wrist by 6 minutes-

"*Outline your approach for investigation and management of a patient with a laceration to the volar aspect of the wrist*."

## Examiner's Marking key-

| Domains | Expected response | Minimum requirements |
|---|---|---|
| **Medical expertise** | • Assessment of penetrating wrist injury:<br>• History – enquire about MOI, functional and neurological dysfunction, previous injuries<br>  ○ and function, occupation and handedness, ADT status<br>• Examination – compare with opposite hand<br>• **Inspection –** look for wounds, general position/posture of the hands and fingers at rest,<br>  ○ deformity or swelling. Make a fist and release for gross function. Identify and remove<br>  ○ any jewellery from fingers/wrist<br>• **Vascular** – bleeding, radial pulse, Cap refill, Allens test<br>• **Sensation** – light touch, compare with uninjured hand. **Ulnar Nerve** – ulnar side of 5th<br>  ○ finger, **Radial nerve** - 1st dorsal web space, **Median Nerve -**radial side of index finger<br>• Once sensation assessment complete one can infiltrate the wound with LA to reduce<br>  ○ pain to assess motor and tendon function<br>• **Motor Function – Median Nerve** supplies the following muscles of hand -lateral 2<br>  ○ lumbricles, Opponens pollicis, Abductor Pollicus Brevis and Flexor Pollicus Brevis (LOAF). Testing -Pen touch test testing abductor pollicus brevis, opposition test testing opponens pollicus (Okay sign assess's injuries at the elbow not wrist) | • History – enquire about MOI, functional and neurological dysfunction, previous injuries<br>  ○ and function, occupation and handedness, ADT status<br>• **Vascular** – bleeding, radial pulse, Cap refill, Allens test<br>• Check for motor and sensory abnormality of the hand<br>• Check for tendon injury by moving various joints of the fingers |

| | | |
|---|---|---|
| | ○ **Ulnar Nerve** – supplies all small muscles, of the hand including Adductor polllicus, except for LOAF. Froments sign -grasping paper between thumb and lateral aspect of forefinger with each hand – affected thumb will flex at DIP because of loss of adductor of the thumb<br>**Radial Nerve –** supplies extensors of the wrist and thumb. Wrist injury will affect sensation only<br>• **Tendons –** assess passive movement and movement against resistance asking if there is associated pain<br>○ **FPL** – flexion at DIP of thumb<br>○ **FDP** -flexes DIP and secondarily flexes PIP. Hold PIP in extension and patients flexes DIP<br>○ **FDS** – flexes PIP joint. In order to immobilise FDP action while testing FDS – immobilise all other digits in extension at DIP while patient flexes non immobilised digit.<br>○ **Flexors of the wrist** – get patient to flex wrist and look for and palpate for the tendons of FCU/FCR and palmaris longus<br>• **Investigations – Xrays** – exclude FB/bone involvement, U/S for FB<br>• **Management –** stop any bleeding, analgesia, ADT, antibiotics, dressing, referral to plastics for exploration of wound if vascular, nerve or tendon injury is suspected. Explore patients alcohol usage and address any concerns that arise. | |

| | | |
|---|---|---|
| **Prioritisation and decision making** | • Clear explanation of the focused clinical examination in a structured manner-<br>  • Vascular<br>  • Neurological<br>  • Tendon examination<br>• Demonstrate clear reasoning for investigation and management-<br>  • X ray/ US for FB<br>  • Stop the bleeding, ADT, Analgesics, Antibiotics<br>  • Referral to Plastic surgeon | • Clear explanation of the focused clinical examination<br>• When to refer to Plastic surgeons |

## 7.4 Procedure and equipment

### Candidate instruction-

You are the education consultant on a registrar teaching day in your tertiary hospital. An advance trainee has approached you with some questions around emergency thoracotomy.

**Your task is to explain the procedure to him and answer any question he may have regarding the topic.**

**The OSCE will assess following domains-**

Medical expertise 60%

Teaching and scholarship 40%

***(Dr. Clare Dibona, FACEM)***

## Role player instruction-

You are an advanced trainee and just finished your critical care term in the ICU. You are about to start your night shift from next week and are trying to make sure you are well prepared for that. A senior registrar in your department had a case the other night, where emergency thoracotomy had to be performed on a 25 year old man, who presented to ED after an MBA.

You have never seen the procedure performed on a patient. But you have read about it, but not confident around the procedure.

You want to know about the clinical indications, contraindications, and steps of the procedure.

Prompts-

1. At 3 minutes if the candidate has not addressed the Indications of the procedure then ask

***"when do we perform this procedure?"***

***"What do we do once we open the chest?"***

*2.* At 5 minutes if the candidate has not begun describing the procedure then ask

***"Can you talk me through the procedure?"***

*3.* At 6 minutes if the candidate has not mentioned- Call the trauma team, Activation of MTP, Intubation and post procedure care and disposition then ask

**"Is there anything else I should do?"**

## Examiner's marking key-

| Domains | Expected response | Minimum requirement |
|---|---|---|
| **Medical Expertise** | **Trauma Call**<br>**MTP – lab notification**<br>**Interventions**<br>• Release of pericardial tamponade<br>• Control of intrathoracic vascular or cardiac haemorrhage<br>• Control of massive air embolism or bronchopleural fistula<br>• Occlusion of the descending aorta<br>• Internal cardiac massage<br>**Indications**<br>Thoracic Penetrating Trauma<br>• Arrest where there has been witnessed cardiac activity within the last 10 minutes<br>• Refractory hypotension (SBP <70) despite adequate resuscitation<br>Blunt Thoracic Trauma<br>• Exsanguination from a chest tube >1.5L<br>• Refractory hypotension (SBP <70) despite vigorous resuscitation<br>**Contraindications**<br>• Penetrating chest trauma CPR >15 minutes without response or CPR >10 minutes blunt trauma without response<br>• Coexistent injuries that are unsurvivable ie severe head trauma<br>• Asystole in the presenting rhythm and there is no pericardial tamponade<br>• Inadequate training or equipment<br><br>**Consent/complications**<br>• Consent may be impractical but needs consideration<br>• Damage to surrounding structures: phrenic nerve, puncture myocardium, lung injury<br>• Iatrogenic injury: needle/scalpel injuries to staff<br>• Infection (empyema) | **Interventions**<br>**Indications**<br>**Trauma call**<br>**MTP** |

| | | |
|---|---|---|
| **Medical expertise Procedure** | **Equipment**<br>• Overhead lights and suction<br>• Unpacked thoracotomy tray<br>• Defibrillator with internal pads<br>• Ensure all staff are wearing PPE (eye glasses, face mask, xray aprons and gowns, sterile gloves)<br><br>**Thoracotomy tray should contain**<br>• Retractors, scissors, forceps, scalpels<br>• Needle holder, artery forceps, vascular clamps<br>• Internal defibrillation paddles<br>• Skin stapler, sutures, surgical ties<br><br>**Procedure**<br>• Intubation, 100% Fi02 and ventilate<br>• Large bore IVC access, MTP, resuscitation blood products<br>• Left side of patient, supine, wedge elevating 15 degrees and arm abducted<br>• **Incision from the costosternal junction 5th ICS (above the rib below) to the mid axillary line**<br>• Cut through the intercostal muscles and parietal pleura with scissors<br>• Rib spreaders open wide as you can<br>• Can extend to the other side using bone cutters to get through the sternum if needed<br>• Expose the heart<br>• Use forceps to separate the pericardial sac away from the heart, avoid phrenic nerve and large incisional through the pericardial sac<br>• **Evacuate any blood/clots, internal massage two flat hands in a hinged clapping motion, internal pads (15-30J)**<br>• **May then need internal cardiac massage or compress aortic finger or staple a myocardial injury**<br>• Pack the chest and cover sterile dressing for closure in theatre | **Thoracotomy tray**<br>**Incision from the costosternal junction 5th ICS (above the rib below) to the mid axillary line**<br><br>**Evacuate any blood/clots, internal massage two flat hands in a hinged clapping motion, internal pads (15-30J)**<br><br>**May then need internal cardiac massage or compress aortic finger or staple a myocardial injury**<br><br>**Circulation: maintain haemodynamic stability with blood product, inotropes, ROTEM. Central line and arterial line access**<br>**Other adequate documentation and package for ICU with the appropriate transfer equipment and drugs. Keep family updated. Liaise with surgeons. Antibiotics and tetanus** |

| | | |
|---|---|---|
| | **Post-procedural Care**<br>• **Circulation: maintain haemodynamic stability with blood product, inotropes, ROTEM. Central line and arterial line access**<br>• Environment: check temperature, BSL and optimise other electrolytes and fluid status. Catheter<br>• **Other adequate documentation and package for ICU with the appropriate transfer equipment and drugs. Keep family updated. Liaise with surgeons. Antibiotics and tetanus** | |

## 7.5 Clinical synthesis and management

### Candidate Instruction-

A junior registrar in your Emergency Department requests to chat to you about a patient he has just seen.

A 15 year-old male presented to your Emergency Department with abdominal pain, nausea and vomiting. He has been unwell for 3 days with a runny nose, cough and fever.

On examination he is short of breath and looks pale and sweaty.

Vital Signs:

HR 110/min

BP 90/60 mmHg

Temp 38 degrees

RR 30/min

The registrar has performed a venous blood gas which will be handed to you by the registrar.

The patient is currently being managed by another senior doctor and needs no further direct input.

**Your task is to assist the registrar in his interpretation of the blood gas and facilitate discussion on treatment aims for the patient.**

**The OSCE will assess following domains-**

Medical Expertise (60%)

Scholarship and Teaching (30%)

Professionalism (10%)

***(Dr. Prathibha Shenoy, FACEM)***

PROP-

VBG:

pH 6.9 (7.35-7.45)

pCO2 31 mmHg (35-45)

HCO3 4 mmol/L (24-28)

Na 142 mmol/L (135-145)

K+ 3.0 mmol/L (3.5 -4.5)

Cl 115 mmol/L (95-105)

Glucose 26 mmol/L (5-6)

Lactate 4 mmol/L (< 2)

Creatinine 52 mmol/L (< 65)

## Role player instruction-

You are a junior registrar new to your role and are interested in further training in emergency. You are familiar with basic interpretation of the blood gas that has been taught to you in your resident years but are very keen to develop your knowledge.

You have just seen this 15 year-old along with your senior registrar. Patient has been previously well. Patient looks unwell. You have spoken to patient's parents to get some history. Parents have informed you that Luke (patient) has had some vomiting and abdominal pain for 2days. They got concerned today as Luke has been breathing heavily and appeared unwell and called an ambulance.

Luke has not had any medical issues in the past. He is on no medications and is not allergic to any medications. He is year 11 student and lives at home.

As Luke is being managed by the senior registrar, you want to explore the blood gas and treatment aims with the duty Consultant who seems to have some free time.

Prompts-

***What is the anion gap and what's the significance?***

***I have heard people talk about compensation. What is that?***

If no mention of Potassium replacement then ask,

***"So can I start some Insulin immediately?"***

If no mention of high lactate, then ask,

***"Anything else on the VBG that may be important?"***

***"So, what is the most likely cause for this presentation?"***

***"How should we treat the patient from here?"***

## Examiner's marking key-

| Domains | Expected response | Minimum requirement |
|---|---|---|
| **Medical Expertise** | Triple acid base disorder<br>• Severe HAGMA (AG 23)<br>• NAGMA (delta ratio 0.55)<br>• Additional respiratory acidosis/ partial compensation<br>Hypokalaemia<br>• Likely to indicate severe **whole-body** depletion of Potassium, Expected K 5.5 based on pH<br>• Care with Insulin<br>Elevated lactate<br>• shock,<br>• intravascular volume depletion,<br>• Sepsis<br>Critically unwell DKA<br>• new diagnosis,<br>• check ketones<br>Treatment Aims<br>• Resuscitate using ABC approach<br>• Appropriate fluids<br>• Seek and treat sepsis<br>• Potassium replacement<br>• Insulin Infusion<br>• May require CVC, HDU<br>• IDC – monitor UO | Minimum required:<br>Severe HAGMA<br>Severe hypokalaemia<br>Elevated lactate – shock, sepsis<br>Appropriate resuscitation with care in terms of fluid, potassium, insulin usage<br>Appropriate disposition |
| **Scholarship and Teaching** | Establishes registrar's baseline knowledge<br>Structured approach<br>Clear explanation<br>Permits questions | Structure and clarity of discussion |
| **Professionalism** | Maintains professional behaviour at all times and displays consultant level behaviour | |

## 7.6 Simulation

### Candidate Instructions

You are the duty Consultant in an urban district Hospital on a particularly busy Monday morning at 0900. Your hospital has all services apart from Neurosurgical and Vascular interventions.

A 55 year old man is brought to your Emergency Department by the local ambulance service after a collapse at a shopping centre.

He was well when he woke up this morning and was out with his wife doing the weekly shopping.

He is usually fit and well with no significant past medical history.

He does not take any regular medications apart from some vitamins.

He is currently in your resuscitation bay being assessed by a junior registrar and 2 competent nurses.

His wife is currently in the waiting room.

**Initial Observations:**

BP 100/60 mmHg

HR 60/min

RR 12/min

T 37 degrees

GCS 15

**Your task is to assist the registrar and manage the patient as you deem necessary.**

**The OSCE will assess following domains-**

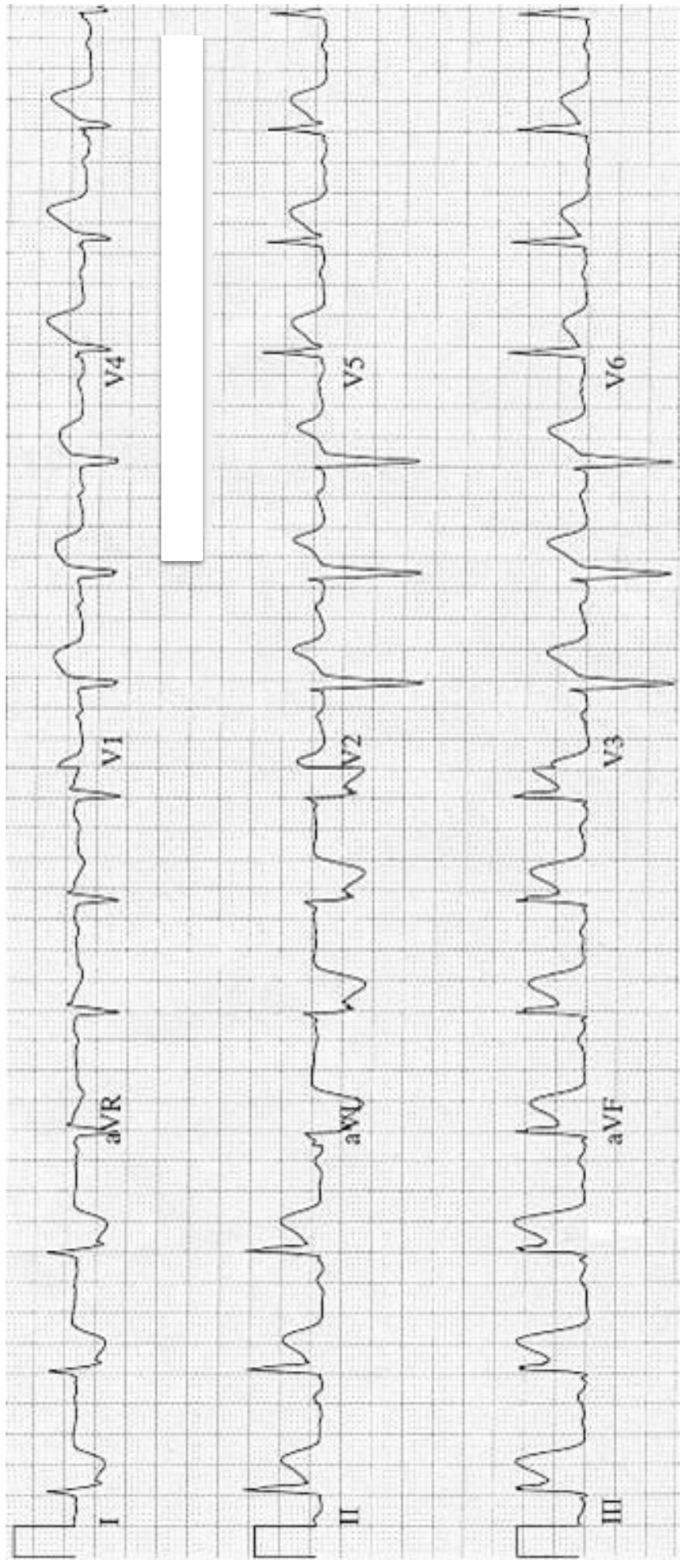
Medical expertise (60%)

Prioritisation and decision making (20%)

Communication (20%)

***(Dr. Yusuf Mamoojee, FACEM)***

## ECG PROP



## Expected Progress of Scenario/ Role Player Information-

The candidate will enter the room, introduce himself and assume team leader role.

Immediately after this, the nurse says,

***"Doctor, the patient is unresponsive"***

Expected response-

Start CPR

**ALS algorhythm, non-shockable rhythm**

If good ALS/CPR, after 2 cycles (shortened for OSCE) with at least two rhythm checks, then ROSC

Expect candidate to do an ABC approach of head to toe exam

Assess H's and T's

Repeat Vitals (on monitor if asked for)

GCS 14

BP 90/60

HR 66/min

T 37 degrees

O2 sats 91% RA

Initial management with oxygen and fluid bolus

If requests VBG,

***"VBG is running doctor"***

No trauma

If requests ECG, handover the ECG and wait

**Correct interpretation of ECG- Inferior and right ventricular STEMI**

Say ***"Doctor the patient is complaining of chest pain"***

Expected response – Morphine judiciously, no GTN as Rt sided infarct

Candidate then asks for aspirin, Ticagrelor and Heparin with appropriate doses

Calls cardiology for urgent PCI.

If poor ALS, then CPR can continue longer – up to 4 cycles before ROSC. Then continue rest of scenario as described.

## Examiner's marking key-

| Domains | Expected Response | Minimum requirements |
|---|---|---|
| **Medical Expertise** | Recognise need for CPR<br>ALS pathway<br>Check for H's and T's<br>Correct interpretation of ECG as Inferior and RV STEMI<br>Fluid and O2<br>Treat pain, avoid GTN<br>Anticoagulation<br>Refer to Cardiology for urgent PCI | Correct ALS algorhythm<br>H's and T's<br>Avoid GTN<br>Correct interpretation of ECG<br>Anticoagulate<br>Cath lab called<br><br>Defib dance:<br>2-minute time check<br>Continue CPR<br>Everyone else clear<br>Charging<br>Stop CPR<br>Rhythm check –non shockable<br>Dump charge and continue CPR |
| **Prioritisation and Decision Making** | Appropriate management of scenario<br>Recognise urgency of arrest<br>Treatment decisions in stepwise manner | |
| **Communication** | Appropriate team leading and closed loop communication | |

# 7.7 SCBD

## Candidate Instructions-

Mark Matthews is a 65-year-old man who has been brought in by ambulance following an out of hospital cardiac arrest.

Mr Matthews developed chest pain whilst mowing his lawn. Shortly after he was witnessed to collapse, and his wife called the ambulance. His son performed chest compressions until the ambulance arrived.

**History as per the paramedic team:**

- Initial rhythm was ventricular fibrillation (VF)
- DC shock x 2 delivered
- 1 mg adrenaline IV
- CPR with bag valve mask ventilation performed
- Return of spontaneous circulation (ROSC) was achieved 10 minutes after the emergency call
- Time since the start of his pain: 75 minutes

**The patient's vitals on arrival to hospital are:**

HR 55 bpm, BP 85/50 mmHg, RR 12 /min, $SaO_2$ 94 % (6L/min $O_2$), GCS 14 (Eyes open to voice)

**The patient's ECG on arrival is attached. Your tasks are to:**

- Interpret this patient's ECG
- Outline your assessment and management of this patient

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 (20%)
- Treatment (40%)
- Prioritisation and Decision-making – 40%

***(ACEM Fellowship OSCE exam 2018.1)***

## Examiners Instruction-

This is a 7-minute Standardised Case-Based Discussion (SCBD) station.

This is an SCBD involving the ED management of a patient with ROSC, following an out of hospital cardiac arrest.

**The candidate's tasks are to:**

Interpret the patient's ECG

Outline their assessment and management of this patient.

**The OSCE assesses the candidate's ability to:**

- Identify inferior STEMI with RV involvement
- Management of AMI
- Management of hypotension (modifications with RV involvement) with fluids then inotropes
- Recognition of need to intubate for PCI
- Safe approach to RSI in this patient
- Anticipate potential for deterioration e.g. progressive heart block, further VF

The questions are standardised for this SCBD. They are to be delivered in the same manner to all candidates.

If a candidate's response is confusing or lacking in the medical expertise expected – then the lead examiner may probe further for clarity, to provide the candidate with an opportunity to show their depth of medical knowledge or to justify their decision-making process.

**This OSCE will assess the following domains:**

- Medical Expertise – 60%
  - Assessment (20%)
  - Treatment (40%)
- Prioritisation and decision making – 40%

**Lead examiner's script-**

The questions are standardised for this SCBD. They 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.

**Patient Assessment (if requested by candidate as the SCBD progresses)**

- **History**
    - History of hypertension and diabetes mellitus type 2 (diet controlled)
    - Meds – Perindopril 10mg daily
    - Nil known allergies

- **Examination**
    - Normal heart sounds, no murmurs o JVP not raised
    - Lung fields clear
    - No peripheral oedema

- **Investigations**
    - Bedside ECHO – no pericardial effusion

**<u>Section 1-ECG interpretation (1 minute)</u>**

**"Please interpret this ECG, which was taken on the patient's arrival to the ED".**

If the candidate gives a diagnosis only e.g. STEMI, then say:

**"Please describe the features of the ECG that lead you to this conclusion".**

**<u>Section 2 – AMI & hypotension management (2 minutes)</u>**

**"What are your immediate priorities for this patient's management? Please explain why."**

- Mx of STEMI – Urgent Cath lab / ASA / second antiplatelet agent / heparin or enoxaparin / analgesia.
- Optimise haemodynamics – IVF. Avoid nitrates and β-blockers, exclude pulmonary oedema / murmur.
- Anticipate progressive heart block – role of positive chronotropes, pacing.Anticipate further VF – prepare appropriate treatment modalities. Optimise electrolytes. Preparation for transport to cath lab.

If hypotension management is not mentioned please say: **"His HR is 55, his BP is 85/45".**

**Section 3 – Recurrent VF, airway management (4 minutes)**

**"The cardiac cath lab has been called and will be ready in 20 minutes."**

**"Despite implementing your management, the patient has two further episodes of VF which respond to defibrillation.**

**The vital signs are now:**

**HR 55/min**

**BP 80/40 mmHg**

**RR 18/min**

**$SpO_2$ 96% (6L/min $O_2$)**

**GCS 13 (E4, V4, M5) and combative"**

(hand them sheet with these Observations on it as you say this).

**"What will you do now and why?"**

Candidate should outline

- **Management of recurrent VF**
  - If the candidate does not cover electrolyte or drug therapy say

**"You've mentioned the arrhythmia. Are there any other medical therapies you would consider?"**

  - Electrolyte management – when mentioned hand the candidate the VBG.
    - $K^+$ minimum of 10 mmol/kg over 30 mins given recurrent VF
    - $Mg^{++}$ 10 mmol over 30 mins also appropriate given low K
  - Amiodarone or lignocaine (lidocaine) load
  - Appropriate level team to transport to lab

- **Further management of hypotension with initiation of inotrope and / or chronotrope**
- **Recognition that patient is no longer obeying commands and will need to be intubated for urgent RSI**
- **Description of key features of approach to RSI in this patient**

If the candidate's decision re intubation is not justified, then please ask:

**"Why are you intubating this patient?"**

If the candidate does not make the decision to intubate the patient, then say:

**“The Interventional cardiologist has asked you to bring them up in 15 minutes, they tell you that they will have to lie flat and still for 30 minutes for the procedure”**

Once the Candidate has made the decision to intubate the patient: **“What are the key aspects of the intubation?”**

- Pre-oxygenation (NIV or BVM, high flow nasal O2)
- Cardiovascular stabilisation / support prior to induction (adrenaline bolus and / or infusion)
- Appropriate induction drug selection (e.g. ketamine 0.5-1mg/kg, fentanyl + propofol up to 1 mg/kg)

**Patient Assessment (if requested by candidate as OSCE progresses)**

- **History**
  - History of hypertension and diabetes mellitus type 2 (diet controlled)
  - Meds – Perindopril 10mg daily
  - Nil known allergies

- **Examination**
  - Normal heart sounds, no murmurs o JVP not raised
  - Lung fields clear
  - No peripheral oedema

- **Investigations**
  - Bedside ECHO – no pericardial effusion

## Props-

### Vitals after successful defibrillation

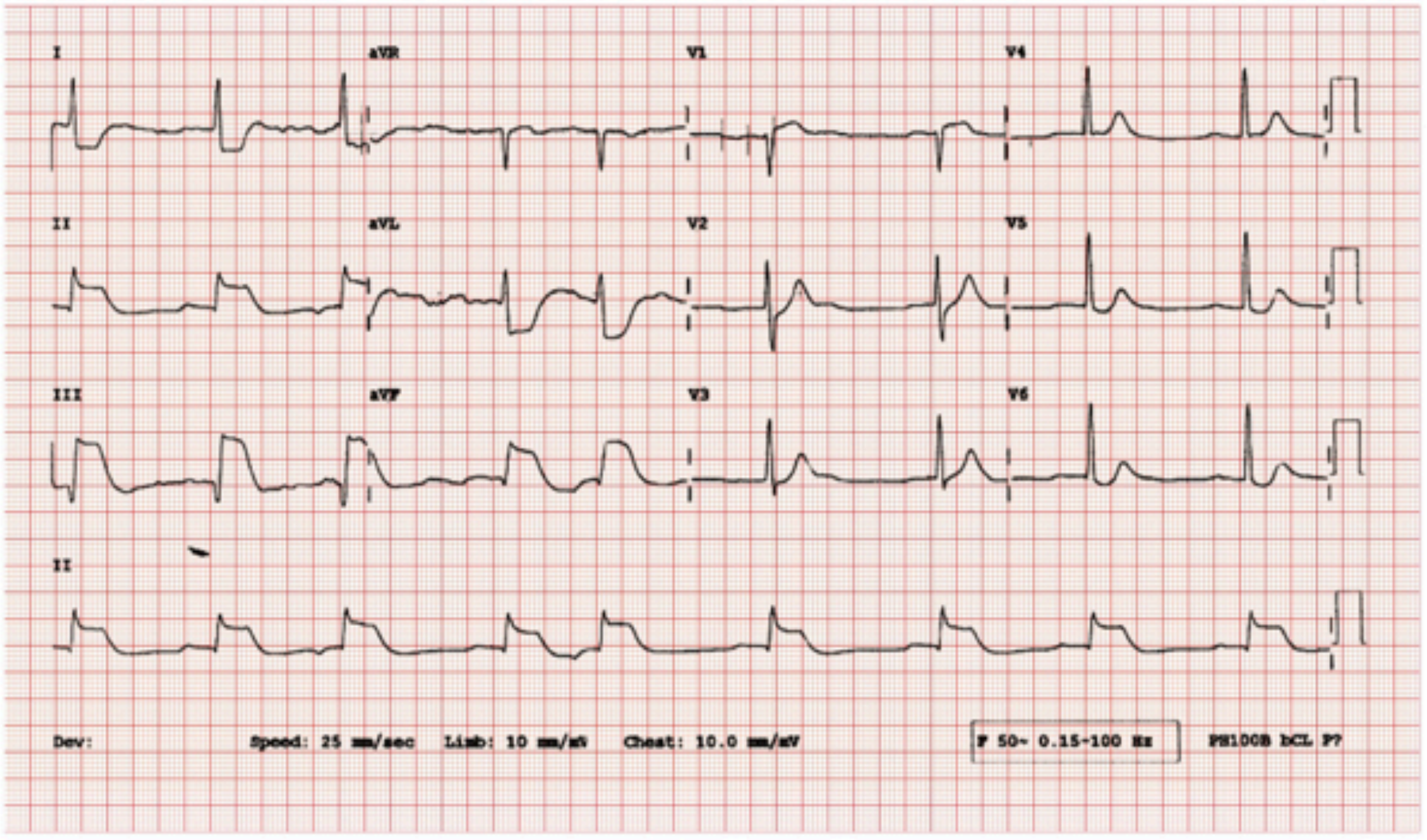
- HR 55 bpm
- BP 80 /40 mmHg
- RR 18 /min
- $SpO_2$ 96 % (6L /min $O_2$)
- GCS 13 (E4, V4, M5)

## Initial VBG

- pH 7.29
- $pO_2$ 33 mmHg
- $pCO_2$ 50 mmHg
- $HCO_3$ 20 mmol/L

- BE - 3.1
- Lactate 4.1 mmol/L
- BSL 7.9 mmol/L

- $Na^+$ 138 mmol/L
- $K^+$ 3.4 mmol/L


I
aVR
V1
V4
II
aVL
V2
V5
III
aVF
V3
V6
II
Dev:
Speed: 25 mm/sec
Limb: 10 mm/mV
Chest: 10.0 mm/mV
F 50~ 0.15-100 Hz
PH10GB bCL F?

| Domains | Criteria and Comments | Minimum requirements |
|---|---|---|
| **Medical Expertise (Assessment 20%)** | • Identify Inferior STEMI (ST elevation in inf leads with reciprocal lateral ST depression)<br>• RV involvement – need to identify 2 features to justify RV involvement (STE V1 +/- depression in V2, STE III>II, look for R sided STE V3R-V6R)<br>• Prolonged PR (1st degree heart block)<br>• Cardiogenic shock | • Identify Inferior STEMI and RV involvement |
| **Medical Expertise (Treatment 40%)** | • Mx AMI – activates cath lab / aspirin / prasugrel or equivalent / heparin / supportive care e.g. analgesia<br>• Initial Mx hypotension. Modifications with RV involvement – preload dependent – IVF crystalloid bolus, may need inotropes. Avoids nitrates and β-blockers. Considers / excludes LVF, new murmur, heart block.<br>• Conduction disturbance – anticipates need for positive chronotropes, pacing. Prepares for VF, optimised electrolytes, amiodarone or lignocaine (lidocaine).<br>• Approach to intubation-<br><br>1) Pre-oxygenation sitting. NIV 100% or BVM. PEEP. Role for non-apnoeic RSI, and/or apnoeic oxygenation.<br><br>2) Circulatory support: Ideally initiate adrenaline (epinephrine) pre-induction either infusion or 50 - 100mcg bolus (maximum safe dose in view AMI) / metaraminol bolus 0.5-2 mg / noradrenaline (norepinephrine) peripheral. | Mx AMI – activates cath lab / aspirin + 1 of clopidogrel/ ticagrelor/prasugrel OR heparin<br><br>Mx hypotension<br>• IVF crystalloid bolus<br>• No nitrates or β-blocker<br><br>Approach to intubation<br>• Preoxygenation: BVM, NIV or 15 l/min NP AND 15 l/min NRB.<br>• Circulation: Use of inotrope/pressor pre-induction<br>• Safe drug dose as per left |

| | | |
|---|---|---|
| | 3) Induction drugs: ketamine 0.5 -1 mg/kg preferable. Other combinations may be accepted. Low dose propofol maximum 1mg/kg or 100mg & fentanyl<br><br>• Recurrent VF: Amiodarone 300 mg load / Lignocaine acceptable. Correct hypokalaemia & expedites PCI | Recurrent VF:<br><br>• Give amiodarone 300mg/5mg/kg or Lignocaine<br>• Corrects potassium to > 4 mmol |
| **Prioritisation and Decision Making (40%)** | Comment: Prioritising early reperfusion is the key priority in this scenario and should be demonstrated throughout the station.<br><br>• Actively recognises that failure to respond to treatment / deterioration with recurrent<br>  • VF and agitation signify need for intubation for PCI- Recognises with prompt that this patient will not be able to lie still & flat for PCI, hence intubation required.<br><br>If requires prompt from Cardiology re lying flat can NOT score more than 'above minimal standard' for this domain.<br><br>• Describes practical approach to hypotension + intubation which is achievable in 20 minutes<br><br>  • Use of peripheral inotropes ideal<br>  • Does not mandate CVL insertion prior to inotropes/ intubation (not feasible)<br>  • Efficient optimisation of patient for intubation in < 20 mins. Pre-oxygenation/ circulatory stabilisation/ drug doses<br><br>• Able to respond decisively when patient has further VF arrest in the ED | • Recognises need for intubation and ventilation<br><br>• Outlines with minimal detail practical approach to correct hypotension + intubate safely within 20 minutes |

| | | |
|---|---|---|
| | • Amiodarone (5mg/kg) or lignocaine (1mg/kg) (load over 20 mins or less)<br>• Correct electrolytes: K to > 4.0. Treats hypokalaemia with minimum of 10 mmol/30 mins. Empirically gives Mg++ 10 mmol in view hypokalaemia.<br>• Anticipates patient may need pacing<br>• Endeavours to expedite cardiac cath / updates the cardiologist re: reperfusion<br>• Transport equipment / monitoring<br>• Anaesthetist for cath lab | • Able to respond decisively when patient has further VF arrest in the ED<br><br>• Prioritises correction of potassium<br>• Amiodarone or lignocaine loading for recurrent VF |

# 8. Past Fellowship OSCEs-

***By Dr Syam Ravindranath, FACEM***

## 7.1 Communication-

**Communication with the patient-**

**End of life care/extend of therapy discussion:**

Extent of care- sepsis and comorbidities 2019.1
Patient immunocompromised with sepsis: extend of therapy/end of life (2018.1)
End of life care and disposition (2018.1)
End of life discussion- severe pneumonia (2016.2)

**Breaking bad news:**

Ruptured abdominal aortic aneurism 2020.1 (2018.2)
Unsuspected malignancy on chest imaging (2017.2)
CT brain tumour (2017.1)

**Others:**

Mixed fracture 2020.1
Upper limb abscess 2019.2
Challenging discussion- abdominal pain 2019.1
Chest pain- discharge against medical advice (2018.2)
Medical error in previous ED presentation - communication to patient (2017.2)
DAMA - acute chest pain/ACS (2017.1)
Address patient expectation- back pain referral from GP (2017.1)
Ureteric colic- Mx plan (2016.2)
Epipen d/c advice to patient (2016.2)
Threatened miscarriage- counselling (2015.1)

**Collegial discussion:**

**Other department:**

Difficult ICU disposition/bed block (2018.1)

**JMO**

Registrar debrief 2020.1
Feedback to JMO regarding performance 2019.2
Discussion with registrar regarding issue on night shift (2018.2)
Providing feedback to junior medical office (2018.2)
Trainee mentoring- performance issues (2016.1)
Debrief JMO- paediatric death
Complaint of inappropriate behaviour (2015.2)

**Impaired colleague:**

Impaired college – ETOH (2016.1)
Poor performing colleague - psychosocial (2015.1)

**Communication with parent/family-**
**Paediatrics-**

Otitis media complications 2019.2
Deterioration post discharge from ED (2018.2)
To parent: review and d/c advice bronchiolitis (2018.1)
With parent- injuries with concerns of NAI (2017.2)
parental discussion on mx of nasal FB (2017.2)
Discussion with parent of a teenager injured in MVA (2017.2)
Diagnosis and mx- paediatric UL injury (2017.2)
Paediatric asthma- d/c advice to parent (2017.1)
LP consent from parent- paediatric patient (2016.2)
Mx of uncomplicated gastroenteritis (2016.1)
Ketamine sedation consent - paediatric from parent (2016.1)
Paediatric injury- h/o mother- possible NAI (2015.1)
Parent of unwell child (2016.1)

**Goals of Care-**

End of life care- elderly with severe illness (2017.1)
End of life care - COPD/CCF discuss with family (2016.2)
Limitation of patient care - discuss with Next of keen (2016.1)
End of life discussion- Next of keen (2015.1)
End of life care discuss with Next of keen (2016.1)

## 7. 2 History taking:

**Medical-**

History taking- acute visual loss 2020.1
History taking- headache in young adult 2019.2
History taking- headache 2019.1
History taking- refugee patient 2019.1
History -progressive Dyspnoea on exertion, Atrial fibrillation (2018.1)
Bilateral leg swelling- history and Differential diagnosis 2020.1 (2018.1)
Elderly with headache (2017.2)
+ assessment- febrile illness and recent travel (2017.2)
syncope/collapse in older patient (2017.2)
Investigation and MX: TIA (2017.1)
Dyspnoea + atypical chest pain (2016.2)
progressive dyspnoea + AF h/o (2016.2)
Emergency contraception + health screening (2016.1)
acute chest pain (2016.1)
Ax of chronic pain (2016.1)

**Surgical-**

History and examination trauma 2020.1
Undifferentiated abdominal pain (2016.1)
Back pain (2015.2)
jJundice of unknown onset (2015.1)

**Paediatrics-**

Blood in stool 2019.2
Unresponsive episode (2018.2)
Headache (2018.2)
Neonatal jaundice (2018.1)
Paediatric abdominal pain- history from mother, dx and mx (2017.1)
Paediatric chronic cough- history from father (2017.1)

**Psychiatric-**
History taking- psychosis 2020.1
Adolescent psychiatric history taking (2018.2)

**Other-**
History taking- sexual assault 2019.2

## 7.3 Physical Examination-

**Extremities/trauma-**
History and examination trauma 2020.1
Shoulder examination 2019.1
Examination- bilateral leg weakness (2018.2)
Ortho examination- Elbow joint/paediatric upper limb (2018.1)
knee injury (2017.1)
Upper limb injury- ortho and neurovascular exam (2016.1)
hand injury- exam (2015.1)
Facial injury (2018.1)

**Neuro-**
Facial weakness examination advice 2019.2
Vertigo 2020.1 Unsteady gait 2019.1
facial weakness (2017.2)
Upper limb weakness exam- (2016.2)
LL examination (2016.1)
Clinical exam neurology central (2016.1)
UL exam (2015.2)

**Others-**
Cardiac failure 2019.2
Examination- abdominal pain (2018.2)
Eye exam (2015.1)
MSE exam psy patient - (2015.1)

## 7.4 Procedure and Equipment-

Hip dislocation 2019.1
Using noninvasive ventilator (2018.2)
Procedure- chest drain (2018.1)
Pacing and Mx bradycardia 2020.1 (2018.1)
Bradycardia + pacing (2016.2)
Biers block (2017.2)
Paediatric LP discussion r/o meningitis (2017.1)
ICC insertion and drain 2020.1 (2017.1)
DCCV for AF (2016.2)
Mx of dislocated hip (2016.2)
Difficult airway - task trainer (2016.1)
CVC insertion (2016.1)
Supra pubic aspiration- JMO teaching (2015.2)

## 7.5 Clinical Synthesis and Management-

**Medical and Surgical-**

Missed diagnosis- Measles 2020.1
Interpretation and management chest pain 2020.1
Teaching- pneumothorax 2020.1, 2018.1
Assessment of syncopal episode with injury 2019.2
Assessment and management of GI bleed 2019.2
Tracheostomy management- teaching 2019.2
Altered mental state 2019.1
AMI- Thrombolysis discussion 2019.1
Hyperglycemia: assessment and management 2019.1
Unwell paraplegic assessment and management 2019.1
Assessment and teaching of confusion and chronic liver disease 2019.1
Assessment of patient with acute abdominal pain 2020.1 (2018.2)
Investigation and management of metabolic alkalosis (2018.2)
Assessment and MX of spontaneous pneumothorax (2018.1)
Spontaneous pneumothorax (2016.2)
Assessment and Mx of Acute dyspnoea in patient with CRF (2017.2)
Pneumonia assessment and disposition (2017.2)
Assessment and MX of renal colic (2017.2)
Acute chest pain- ED assessment and Mx: ED approach to HTN (2017.2)
Acute stroke patient- H/o and exam 2020.1 (2017.2)
Suspected SAH - approach to assessment (2017.2)
testicular pain- Ax + Mx (2017.1)
AF - discussion with college (2017.1)
headache (2016.1)
JMO advice - Abdominal pain with history of crohn's (2017.2)
JMO advice- assessment of pleuritic chest pain in pregnant pts (2017.2)
JMO advice- Interpretation and mx of hyponatremia (2017.2)
reg teaching- difficult airway (2017.1)
reg teaching - Gi bleed (2017.1)
JMO advice- Approach to anaemia in elderly (2017.1)
JMO advice- Approach to syncope (2017.1)
JMO advice- Acute confusion + liver disease (2017.1)
JMO advice- Paediatric patient with a limb (2017.1)
JMO advice- Ax and MX of ischaemic limb (2017.1)
JMO advice- 1st seizure (2017.1)
JMO advice- AMI thrombolysis (2017.1)
reg discussion- oxygenation and vent of intubated patient (2017.1)
JMO advice- approach to elderly with abdominal pain (2017.1)
JMO advice- approach to acute confusion ax (2017.1)
JMO teaching- error in history taking- chest pain, time critical interventions (2017.1)
JMO advice- Young women syncope (2017.1)
JMO advice- VBG approach to metabolic acidosis (2016.2)
JMO advice- ECG- brady-arrythmia, recent cardiac surgery- Investigation and management (2016.1)
JMO advice- life threatening GI bleed (2016.1)
JMO advice- approach to ECG interpret (2015.2)

JMO advice- acute respiratory failure (2015.2)
CCBD- Management of difficult patient: acute PR bleed and transfusion refusal (2017.2)

**Trauma-**

Femoral fracture management 2019.2
Peripheral injury assessment and management 2019.1
Approach examination and imaging - C spine injury (2017.2)
C- spine injury (2016.2)
JMO advice-mx of wrist #'s and biers block (2017.2)
reg teaching - ED thoracotomy (2017.1)
JMO advice- Approach to Ax of facial trauma (2017.1)
JMO advice- leg trauma gunshot (2017.1)
CCBD: Mx of agitated trauma patient with likely head and spine injury (2017.2)
CCBD: Mx of shocked trauma patient (2017.1)
CCBD: MX of patient with agitation, respiratory failure and shock (2017.1)
CCBD: mx of severe head injury (2016.2)
CCBD: mx multi-trauma- chest and head injury with hypotension (2016.2)

**Paediatrics-**

Assessment of child with a limp 2020.1
Elbow fracture 2019.2
Abdominal pain 2019.1
Teaching- Neonatal resuscitation 2020.1 (2018.2)
Acute asthma management (2018.2)
febrile convulsion (2016.2)
Xray/teaching - paediatric supracondylar # (2018.1)
JMO advice- Mx of paediatric DKA (2016.2)
JMO advice - paediatric head injury (2017.1)

**Psychiatry-**

psychosis assessment (2016.2)
mental health and risk assessment- mood disorder patient (2016.1)
Mental health assessment of agitated patient (2015.2)

**Obstetrics and Gynaecology-**

Abdominal pain in pregnancy-? preeclampsia (2016.2)
JMO advice- OBS PPH Mx (2017.1)
JMO advice- preterm labour (2016.2)

**Toxicology-**

Snakebite- assessment and management teaching 2019.2
VBG- Toxicology (2018.2)
JMO advice- Possible lithium toxicity (2017.1)
reg discussion- paediatric ingestion, assessment and management (2017.2)
Snake bite Mx - JMO advice (2017.1)

### Interpretation of investigations- VBG/ X-ray/ CT/ USG/ Laboratory results

**ECG-**

ECG- chest pain- interpretation and management 2019.2
ECG- Syncope- assessment, diagnosis and management 2019.2
ECG- Interpret and Mx of SVT (2018.1)
ECG in syncope - Ax and MX (2017.1)
ECG- pacemaker issues (2017.1)
ECG- post OD Investigation and management (2015.2)
ECG- WPW/Brugada- investigation and MX (2015.1)

VBG- interpretation and management of Hyponatremia 2019.1
Acute knee swelling/aspirate result - Interpretation + mx (2017.2)
Blood gas and toxicity (2017.1)
ARF interpretation and Management (2017.2)
ABG - Interpretation and management COPD
lab- renal failure elderly patient (2016.2)
Lab- electrolyte disorder Na/K/Ca (2016.1)
VBG- DKA (2015.1)
Xray- Ankle # MX (2015.1)

### 7.6 Simulation-

**Medical-**

Sizure- pregnancy 2020.1
Airway 2020.1
Failed intubation 2019.2
Cardiac arrest post sedation 2019.1
Management of recurrent VF/ STEMI (2018.2)
Arrested Asthmatic (2018.1)
Post ROSC care, hyperkalemic arrest ESRF (2018.1)
Procedural sedation- Airway complication (2018.1)
Agitated patient, deterioration post sedation (2017.2)
Adult asthma (2017.1)
Hyperkalemia (2016.2)
Na channel-blocker OD (2016.2)

OD + hyperthermia (2016.2)
Long QT (2016.2)
Chest pain + OOHCA (2016.1)
Intubated asthma- difficult to vent

**Trauma-**

Multitrauma regional centre (2016.1)

**Paediatrics-**
Head injury 2019.2
Complex seizure (2018.2)
Paediatric sim- hypoxia and shock (2017.2)
Paediatric- DKA (2017.1)
Paediatric trauma (2017.1)
critically ill infant (2016.1)
Paediatric resus- Out of hospital cardiac arrest (2015.2)
Paediatric trauma (2015.2)
Paediatric sepsis + PEA arrest

## 7.8 SCBD-

Resuscitation 2020.1
Penetrating trauma 2020.1
Post bariatric surgery complication 2020.1
Trauma Blunt trauma 2020.1
ECG interpretation following seizure 2020.1
Organophosphate toxicity 2019.2
Pediatric LP decision making 2019.2
Cardiac arrest/ arrhythmia management 2019.2
Major epistaxis 2019.2
Post-partum patient with respiratory distress 2019.1
Head injury and difficult airway 2019.1
Thyroid disease 2019.1
Pediatric ingestion and arrest 2019.1
TCA overdose 2019.1
Assessment and management of an elderly trauma patient (2018.2)
Deteriorating oncology patient (2018.2)
Management of a confused and agitated patient (2018.2)
Acute dyspnoea (2018.2)
Pelvic Trauma (2018.2)
Paediatric airway obstruction (2018.2)
Cardiac arrest -OOHCA (2018.1) (2018.2)
Paediatric sepsis/meningococcal (2018.1)

elderly with abdominal pain + hypotension (2018.1)
Paediatric head injury (2018.1)
Chest trauma - xray (2018.1)

## 7.8 Administration/ Leadership and Management

**Overcrowding-**

Department management: ambulance offload management 2019.1
Department management: access block 2019.1
Patient prioritisation regarding use of CT (2018.1)
Incoming patient and access block (2017.2)
Disaster prep- Avian flu (2017.2)
Management of overcrowding - multiple trauma patients (2016.2)
ED NUM- Access block (2016.2)
Discuss with NUM- disaster plan (2016.1)
Disaster prep (2015.1)

**Difficult patient/ Interaction with staff-**

Leadership and management- conflict resolution 2019.2
Mx plan- chronic pain and opioid abuse patient (2017.1)
Medical clearance- agitated patient with mental health background (2016.2)

**Medical error-**

Missed measles diagnosis 2020.1
Open disclosure - avoidable medical error (2016.1)
Complaint- missed fracture paediatric + laceration repair issues- discussion with mother (2015.1)
Open disclosure- medical error (2015.2)
Medical error-Insulin: comm with wife (2017.1)
Missed #- open disclosure with Next of Keen 2020.1 (2015.2)
Needle stick injury - nurse, patient known hepatitis C (2015.1)

# 8. Appendices

Australasian College for Emergency Medicine

# OSCE Candidate Guidelines

ACEM Clinical Examinations

## COVID-19 Modifications to Stations - Notice to Candidates

### 1. Introduction

Where COVID-19 restrictions are in place in any examination location at the time of the Fellowship Clinical Examination (OSCE) or the Primary Clinical Examination (Viva), the following station modifications will be in place and these modifications will apply for all candidates sitting the examination, irrespective of their sitting location.

Candidates enrolled for these examinations will be advised directly in this event.

Under COVID-19 arrangements there will normally be one examiner only in the examination room for each station in the clinical examinations. A second examiner will observe and score the candidate either during the station via remote access or after the examination via the station recording.

The arrangements below have been made to accommodate COVID-19 restrictions in place at any examination location at the time of the examination, and examiners marking via remote access and/or recorded stations.

### 2. Fellowship Clinical Examination (OSCE) 2020.2

#### 2.1 Simulation Stations

The OSCE Simulation stations will be replaced by Standardised Case Based Discussion (SCBD) stations. The modified stations have been designed to cover the same content as the Simulation Stations.

#### 2.2 Physical Examination (PE) stations

The PE stations will be modified with the aim of assessing as much of the original intended content as possible with necessary changes in format to accommodate COVID-19 restrictions e.g. maximum numbers in room and social distancing.

As such there will be no physical contact with a role player during a station and role players will not be used in PE stations.

To enable the assessment of aspects of the skill of physical examination, candidates may be asked to describe to the examiner, the examination they would perform in a given clinical situation as well as the physical findings they would be looking for.

They may also be asked to explain how different physical findings would alter their decision making or respond to provided examination findings.

The document, OSCE Physical Examination Stations - COVID-19 version, on the Fellowship Examination Resources site has further specific information.

#### 2.3 COVID-19 Content

The 'Candidate Instructions' for each station will usually specify that: 'There is NO RISK of COVID-19. COVID-19 precautions are NOT REQUIRED' i.e. Candidates can assume that COVID-19 will not be a consideration in a station unless this is specifically mentioned.

### 3. Primary Clinical Examination (Viva) 2020.2

The Viva stations will be modified to accommodate the assessment of candidate performance by remote examiners online or via station recordings.

As such candidates will be required to describe rather than draw or point, and to describe numbered features in photos rather than on models. This may include the use of photos of anatomical models and bones.

As such there will not be live models or bones for candidates to handle. There will be photographs of bones, models, dissections and radiological images, as may have been used in previous Vivas.

Features on photographs will be numbered so that a candidate does not have to point to images, as the examiner assessing via remote access or a recording may not be able to see what the candidate points to.

In some of the questions, (often Physiology and Anatomy), candidates may wish to draw their answer on paper, as an aid. This is allowed however candidates must describe their answer in words to the examiner. The drawing cannot be submitted as part of their answer. Again, the examiner via remote access or recording will not be able to easily see the drawing.

Should you have any further questions about the station modifications or any other aspect of the ACEM Clinical Examinations please email Primary.Exam@acem.org.au or Fellowship.Exam@acem.org.au for assistance.

Dr Jo Dalgleish,

Chair, Examinations Committee

19 October 2020

Australasian College for Emergency Medicine

# OSCE Candidate Guidelines

Physical Examination Stations

## Physical Examination OSCE Stations - COVID-19 Version

### 1. Introduction

This document provides information about the Fellowship Clinical Examination (OSCE) Physical Examination (PE) stations for candidates preparing to sit the OSCE. The conduct of a clinical physical examination is a core EM skill and as such you should expect this to be assessed in the OSCE.

Modifications have been made to these guidelines for use in accordance with COVID-19 restrictions where these are in place in any location at the time of the examination. These may include limitation to numbers in a room and social distancing requirements.

The station modifications will apply for all candidates sitting the examination, irrespective of their sitting location.

Candidates enrolled for these examinations will be advised directly in this event.

In summary, the modifications include having no role player in the examination room for a PE station, interaction being between the candidate and the examiner present and candidates being required to describe the 'examination' they would perform, to meet the requirements of the station.

### 2. The Aim of the PE Station

The aim of a PE station is to assess that you can competently perform (describe) a clinical examination to:

- Establish/clarify the most likely diagnosis from several differentials
- Establish the severity of a condition/ injury
- Confirm or exclude potential complications e.g. of an injury.

### 3. The Format of the PE Station

The format of the PE stations has recently been reviewed and modified to enhance their effectiveness, primarily by streamlining the communications within the stations.

In past PE stations, a third party role player acting as a JMO, was often used to provide prompts and ask questions. In PE stations you will now be asked more often to take instruction from and communicate directly with the Lead Examiner for the station. This change is aimed to make communications more straightforward and to enhance consistency across the three rooms where the station will be assessed. It will also effectively reduce the number of 'players' in the room.

In the COVID-19 situation, you will be asked to describe the physical examination, and the Lead Examiner will usually be the examiner present in the room.

### 4. The Steps in the PE Station

The PE station will usually follow a series of steps:

1. You will be presented with a 'Clinical Problem' in the Candidate Instructions available during reading time.
2. You will be asked to describe a relevant and focused physical examination and to provide an explanation to the station Lead Examiner as the station progresses.
    - Your examination description must be competent: You must describe an examination technique which would be expected to reliably detect relevant examination findings. The

question for examiners to decide is: *'Did the Candidate describe the relevant examination competently such that they would have found the pathology if it was present?'*

- The examination standard expected is that which a competent FACEM would perform in the workplace, faced with a similar presentation. Candidates are not expected to perform a complete 'Medical Student Short Case system-based exam'. They are assessed on the focused examination they chose to perform to answer 'the clinical question provided'.
- Your explanation should include '*what you are examining for*', '*what the different potential findings might be/might look like*', and '*what the different potential findings would mean in terms of differential or provisional diagnosis*'.
- The question for examiners *is 'Did the Candidate know what examination findings they were looking for, what these would mean and why they were relevant?'*

3. After you have completed or as you are describing the physical examination, the Lead Examiner will usually present the 'Examination Findings' to you and may ask further scripted questions. This is to assess your ability to synthesise your examination findings to produce a provisional or differential diagnosis and to justify your conclusions. You may at times be asked for plans for further investigation or management. The question for examiners is:
*'Did the Candidate interpret the examination findings correctly to make an appropriate provisional/differential diagnosis or plan?'*

In some PE stations you may be asked by the Lead Examiner to outline your 'differentials' before you describe the physical examination. Then you may be asked to '*Examine the patient to clarify your differential'* or later in the station, asked '*How would you now examine for your other differentials*?'

Relevant historical information that outlines the patient issues, will normally be provided in the Candidate Instructions available during reading time. As such you will not usually be required to take a clinical history in a PE station, unless this is specifically stated in the Candidate Instructions. History taking skills are usually assessed in other stations of the OSCE.

## 5. The Examiner Role

The examiners will make every effort to ensure that you have a fair opportunity to display your knowledge and competence in the PE station.

The Lead Examiner will manage the flow of the station, moving you along as needed to assist you to complete all stages of the station. They may provide prompts as instructions or questions, such as '*Describe your examination*', '*Explain what you are doing/looking for*,' or '*What would that mean*?'

If a Lead Examiner attempts to change your direction with a prompt such as '*What else would you like to examine?*' you should take this as your cue to move on. It may be you have covered all that is needed in that area or that you are on the wrong track. The examiner will be trying to ensure you have the opportunity to cover all the required areas of assessment.

If the Lead Examiner feels that time is short, they may not ask for further physical examination description but follow up with a question such as, '*What would you be looking for*?' so that you have an opportunity to cover more essential ground.

It is important that you take note of Lead Examiner prompts. The examiners are trying to assist you to cover every aspect of the station.

## 6. PE Station Conduct

You should expect to describe a focused physical examination as you would examine a patient 'at work' but to explain every step as you do it, throughout the examination. The examiner will find it difficult to assess whether you know what you are doing unless you describe and explain as you go.

The Lead Examiner may remind you, if they feel you are not describing your examination adequately. For example, if you say, '*Testing dermatomes'* but you do not explain which dermatome you are testing when you describe touching different areas of skin, the Lead Examiner may say '*Explain what you are testing as you go*.'

It is important to recognise that both your described examination technique and the explanations you give as you go along will contribute to your score in the assessed domains.

## 7. Presentation of Clinical Findings

The Lead Examiner will usually provide clinical findings to you when you have described some or all of the physical examination. These will be presented verbally and/or in a printed handout at a pre-determined stage of the station.

On occasion, clinical findings may be provided in real time as you are describing the examination, in this way to reflect the 'real world' and how the findings can influence your further examination choices. For example, if sensation is being assessed, the Lead Examiner might say '*Pinprick sensation is intact*,' or '*Pinprick sensation is reduced,*' and may also describe the relevant examination area on the 'patient'.

You should not expect to be given findings for something you have not covered in your examination.

## 8. Marking Criteria

The PE stations will assess a selection of the OSCE Domain Criteria from the ACEM Curriculum Framework, examples of which can be found in the resource in ACEM's Fellowship Examination Resources on eLearning.

A sample of the Domain Criteria that you may expect to be assessed against in a PE station are shown below:

### Medical Expertise - Assessment and Diagnosis

Generic criteria, (initial assessment)

- Identifies the elements that must be sought on initial assessment to formulate an initial management plan
- Seeks evidence of time critical diagnoses when performing assessment
- Generates a relevant list of differential diagnoses after synthesising clinical information found on initial assessment
- Formulates a provisional diagnosis to match the immediate issues
- Identifies risks of deterioration in the patient

Physical examination

- Performs (Describes) a focussed structured and relevant physical examination
- Performs (Describes) a proficient examination technique to elicit physical signs
- Describes expected physical signs for a diagnosis
- Differentiates expected physical signs for different conditions

### Prioritisation and Decision Making

Prioritising patient assessment and management

- Highlights high-risk features identified during initial patient assessment
- Explains the rationale for prioritising a particular diagnosis over others
- Prioritises a differential diagnosis list to determine the most likely diagnoses in a patient

You will need to read the 'Domains Assessed' section of the Candidate Instructions available during reading time, to ensure you know what will be assessed in the station and in order to plan your approach to the station appropriately

Dr Jo Dalgleish

Chair, Examinations Committee

Australasian College for Emergency Medicine

# OSCE Candidate Guidelines

Simulation Stations

## The OSCE Simulation Stations

Where COVID-19 restrictions are in place in any examination location at the time of the Fellowship Clinical Examination (OSCE), station modifications will be in place and these modifications will apply for all candidates sitting the examination, irrespective of their sitting location.

Candidates enrolled for these examinations will be advised directly where these provisions are in place for their examination.

In this event the OSCE Simulation stations will be replaced by Standardised Case Based Discussion (SCBD) stations, that will cover the same content.

Note: The following section describes the format of the Simulation stations when COVID precautions are NOT in place.

### 1. Introduction

This document provides information about the OSCE Simulation for candidates preparing to sit the Fellowship Clinical Examination (OSCE).

### 2. The Simulation stations

There will be a minimum of one simulation station in any 12 station OSCE. Simulation station/s will be the same length as other stations in the examination i.e. of seven (7) minutes length preceded by four (4) minutes reading time.

Simulation stations will aim to assess the candidate's ability to effectively assess and manage a clinical situation under pressure of time.

### 3. Domains assessed

The domains most frequently assessed in simulation stations are:

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

In the simulation station/s, candidates are likely to be required to effectively deal with one or two important aspects of a particular clinical situation, given the time frame available.

### 4. Conduct of the station

The stations will commonly be set in the context of the candidate arriving as the 'Consultant in Charge' to assist and lead the care of a patient in a dynamic and evolving situation as would occur if they were 'called in to help'.

As such candidates may be required to provide care at any stage of the patient's ED journey where a 'problem' could occur. Candidates will be assessed on the care they have delivered/plan to deliver and how competently this has been coordinated.

The status of the patient at the end of the scenario will not necessarily reflect the quality of this care or the success of the candidate in the OSCE. An OSCE may be designed such that even with optimal care

delivered that the clinical problem is not resolved by the end of the scenario. That is, if the patient is not better by the end of the OSCE, it may not necessarily mean that you have performed poorly. If you have delivered appropriate care, it will be reflected in your assessment.

## 5. Expectations of the candidate:

The candidate will be expected to display effective prioritisation and decision-making in the actions they take and in the order they take these actions.

In some situations, immediate clinical management will be indicated and would be expected to occur in conjunction with or prior to, handover/introduction/team orientation.

The candidate will be provided with clinical information outside the examination room; this information will reflect what a FACEM would be likely to know, when they are called in to help from the floor (or from home).

Candidates should not expect prolonged time to prepare the team in the examination room, as may have been allowed for in the previous double simulation stations (prior to OSCE 2018.1).

Candidates should focus on the effective delivery of 'required clinical care' as this is what they will be assessed on.

The setting and equipment for the station will be as required for the scenario.

The 'staff assisting' will be as required for the scenario – often one registrar and one or two nurses. They will be competent, as expected for their role.

Should you have any further questions about the simulation stations or any other aspect of the Fellowship Clinical Examination please email Fellowship.Exam@acem.org.au for assistance.

Dr Jo Dalgleish

Chair, Examinations Committee

19 October 2020

Australasian College for Emergency Medicine

# OSCE Candidate Guidelines

ACEM Clinical Examinations

## COVID-19 Modifications to Stations

### Further information regarding the OSCE Simulation Stations

Dear DEMTs and Trainees

The College has received feedback that some OSCE candidates are uncertain about how a simulation scenario could be altered to a Structured Case Based Discussion (SCBD), to cover the same content. The example below shows how such changes could be made.

On the Fellowship Examination Resources webpage on the ACEM Educational Resources site, you will find the simulation scenario (OSCE 13) from the 2018.1 Fellowship Clinical Examination, that was previously released.

The domain criteria being assessed will change. The SCBD format does not assess Teamwork & Collaboration. This will be replaced with an alternative domain e.g. a second Medical Expertise Domain:

- Medical Expertise: Initial assessment and management
- Medical Expertise: Further management
- Prioritisation and Decision Making

Below is a set of possible modifications that illustrate how this scenario could be altered to work as an SCBD.

| Role Player dialogue spoken in a Simulation Station | Examiner questions/statements for an SCBD |
|---|---|
| **"Thanks for coming in – can you help me with this patient? The ventilator keeps alarming"** | **"The ventilator keeps alarming. What actions will you undertake?"** |
| If the candidate does not remove the patient from the ventilator, by one minute the sats should continue to drop. Once the sats drop to 75% you should state again:<br>**"Things are getting worse. He is not ventilating at all."** | If the candidate does not state that they will remove the patient from the ventilator, after one minute:<br>**"The oxygen saturation level has fallen to 75% and he is not ventilating at all. What will you do?"** |
| By 1:30 the sats will fall to 70% and if the candidate still does not remove the patient from the ventilator, you should state:<br>**"I'm taking him off the ventilator – it's not working.".** | **"The registrar assisting you has disconnected the ventilator and started hand bagging the patient.**<br>**What instructions will you give your registrar?"** |
| In the situation where the candidate switches to bag ventilation but does not slow the rate, after 30 seconds state:<br>**"They are hard to bag"** | If the candidate does not suggest slowing the rate of hand bagging:<br>**"Your registrar advises you that the patient is hard to bag.**<br>**What will you suggest that your registrar does?"** |
| | If candidate addresses different aspects but the order/ prioritisation is not clear to the examiner:<br>**"How would you prioritise the care you have mentioned?"** |
| | **"You mentioned 'x' management. Can you elaborate on that?"** |

| | |
|---|---|
| **"He seems to be coughing and gagging on the tube."** | **"The patient is coughing and gagging on the tube. How will you manage this? "** |
| **"His sats are 85%, he is still tight and wheezy, what do we do now?"** | **"His oxygen saturation level is 85% and he is still tight and wheezy. What would you do now?"** |
| **"He seems to be a bit more stable now. When he is a bit more settled, what ventilator settings should we use?"** | **"The patient has settled, what ventilator settings will you use?"** |
| **"Can you explain why you are using those settings?"** | **"What is your rationale for using those settings?"** |

Should you have any further questions about the station modifications or any other aspect of the ACEM Clinical Examinations please email Fellowship.Exam@acem.org.au for assistance.

We wish you well as you prepare to undertake your forthcoming examination.

Dr Jo Dalgleish,

Chair, Examinations Committee

30 October 2020