**Fellowship Examination OSCE Detailed Example 1**

*SUBJECT AND CURRICULUM REFERENCE*

Difficult airway management

Medical Expertise

Teamwork and Collaboration

Prioritisation and Decision Making

*CLINICAL SCENARIO STEM*

A 50 year old man is brought in by ambulance with an IV in situ. The patient has been assaulted with a cricket bat. He has isolated head and face injuries. On arrival his vital signs are as follows:

| | | | |
|---|---|---|---|
| HR | 90 | /min | |
| RR | 8 | /min | |
| BP | 150/80 | /mmHg | |
| $O_2$ Saturation | 90 | % | 15L oxygen via non rebreather mask. |
| GCS | 4 | with equal and reactive pupils | |

On examination he has obvious extensive midface fractures bilaterally, with blood coming out of his mouth, and gurgling respirations.

*INSTRUCTIONS*

**Candidate:**
The scenario is in the Resuscitation Room. There is a high fidelity mannequin that will respond as a live patient. Your registrar has already prepared the appropriate drugs and difficult airway trolley. You have an assistant who is a competent nurse, but requires instruction. The registrar has been called away. You have been called by your registrar for an anticipated difficult airway and are required to manage the patient's airway.

**Role player - nurse assistant:**

You are an experienced airway nurse. You will follow the candidate's instructions promptly, efficiently and competently. You will not prompt him with regards to patient management. You will alert him to significant deterioration in the patient's condition (e.g. when the oxygen saturations deteriorate, or if the patient becomes bradycardic).

**Examiner:**

This scenario requires an advanced mannequin, difficult airway and resuscitation equipment and a competent nurse to assist the candidate.

The mannequin is impossible to intubate.

The candidate must first recognise the need to secure the airway and attempt intubation using RSI. Once intubation fails, the candidate must commence an appropriate difficult airway algorithm (e.g. reattempt intubation with some changes such as repositioning head, use of a bougie, etc., assistant providing laryngeal manipulation, etc.), then LMA insertion, BVM ventilation.

If the candidate inserts an oral airway and ventilates competently via bag-valve-mask, he is initially able to oxygenate and ventilate the person for approximately 30 seconds. However over that period of time, the patient's oxygen saturations deteriorate markedly. The candidate must now recognise a "can't intubate, can't oxygenate" scenario and proceed to a surgical airway.

*NOTE: If by 5 minutes the candidate has not proceeded to a surgical airway, at that point the patient becomes peri-arrest: HR 20 /min, apnoeaic, $O_2$ Saturation 60%.*

**Assessment criteria**

- Recognition of need to secure airway and intubate patient.
- Attempt intubation with appropriate drugs, equipment and technique.
- Once first intubation attempt fails, commence difficult airway algorithm.
- Maximum of 3 attempts at intubation, and at each attempt must alter some factor to increase likelihood of intubation (e.g. Reposition patient, or use of a bougie, or having assistance provide external laryngeal manipulation)
- LMA insertion – must have competent technique and insert successfully, however is unable to ventilate patient adequately via LMA.
- Maintain oxygenation between attempts at intubation/LMA by competent ventilation with bag-valve-mask
- NOTE: After at least 3 attempts of establishing a definitive airway (ETT and/or LMA) candidate is able to ventilate and oxygenate patient via BVM (if performed competently). However after approx. 30 seconds, situation deteriorates into a "can't intubate can't oxygenate" scenario.
- Candidate must recognise and verbalise that this is a "can't intubate, can't oxygenate" scenario.
- Candidate must successfully establish a surgical airway.
- Candidate must successfully ventilate patient via the surgical airway, using an appropriate technique.