**OSCE: ASTHMA**

**SUBJECT AND CURRICULUM REFERENCE**

Medical Expertise ☐

Prioritisation and Decision Making ☐

Communication ☐

Leadership and Management ☐

**CLINICAL SCENARIO STEM**

A 21 year old female with a known history of asthma has been brought into the resus bay by ambulance. She is severely dyspnoeic and unable to speak. She has had a viral URTI for the last 3 days where she has been at home alone, there is no one to accompany her and she is unable to give further history. She has been on continuous nebulised salbutamol for 30 minutes without marked improvement. She has a single IV line and the nurses have drawn blood for a VBG and the patient has had a CXR of which the result is pending. It is unclear from the patient or the notes any further history of her asthma/PMG/Meds.

Observations are as follows:

P 140

Sats 93% 100% NRB

RR 36

Temperature 37.4

BP 130/90

**INSTRUCTIONS**

* Candidate
  + You are the senior doctor in a small ED called to see a new patient with asthma in the resus bay. The clinical scenario is as above. The patient will be a high fidelity mannequin. You will have a nurse and an RMO to assist you with procedures.
  + Assume that the patient is too breathless to give further history
  + You are required to
    - Assume clinical leadership
    - Assess the clinical situation
    - Describe and interpret any available investigations aloud to the team
      * If you request investigations the nurse will inform you when they are ready to view
    - Direct appropriate management for this patient
      * Ensure that you include doses and routes of administration
  + Please note:
    - Non Invasive Ventilation is not possible
    - **You will not be assessed on advanced airway management**
* RMO Assistant
  + You are able to do basic procedures such as canulation, blood drawing, ABG as well as calling any teams/departments that the senior requests
  + If asked for NIV you are to state that it is not available
* Nurse
  + Your role is to assist with observations, administer meds and alert the candidate when results of investigations are available (these are displayed on the SIM monitor)
  + You may alert the candidate to observations that have changed after approx. 1 minute if they have not noticed
  + The VBG will be ready to give to the candidate within 2 minutes of the start of the scenario –
  + The CXR will be available within 6 minutes of the start of the scenario and shows a large left sided pneumothorax

**ASSESSMENT CRITERIA FOR EXAMINER**

* + The candidate must demonstrate the following:
    - Appropriate interaction with the medical and nursing team
    - Initiation of Investigations
      * CXR
      * VBG or ABG
      * Spirometry is impossible and inappropriate at this time
    - Appropriate management
      * Ongoing high flow O2
      * Salbutamol continuous nebulisation, consider IVI if fails
      * +/- Atrovent 8puffs bia spacer or 500mcg neb up to 3x in 1sthr
      * Prednisolone 50mg po or 100-200mg iv
      * Magnesium IV 10mmol over 20mins
      * Consider NIV or intubation and ventilation if deteriorates
    - Correct interpretation of the **VBG**
      * Acute Respiratory Alkalosis likely due to Hypoxia
      * Low potassium and high lactate due to salbutamol therapy
      * **pH 7.49**
      * **pCO2 22**
      * **pO2 45 (venous)**
      * **HCO3 26**
      * **K 3.1**
      * **Lactate 3.0**
  + CXR
    - Hyperinflation and moderate left sided pneumothorax without radiological tension.
    - Identify need for chest drain due to secondary pneumothorax but no acute need for needle thoracostomy or finger thoracostomy
  + Disposition
    - ICU/HDU

