**Small Group teaching - Respiratory**

Case 1

A 30 year old woman presents to the ED with dyspnea. She has a history of asthma with several previous hospital attendances for asthma, but has never required admission to ICU. She has been unwell for 2 days with an URTI, and has been dyspnoeic for 24 hours. Despite use of her ventolin inhaler (used via a spacer every 2 hours) she has become more dyspnoeic.

Clinically she is afebrile, awake and oriented but states she feels anxious. Her other observations are:

HR 125 (sinus tach)

BP 95/65

RR 32

O2 sats 95% (currently receiving nebulizer)

1. How do you assess the severity of this patient’s symptoms?
2. What are the differentials in this patient?

The patient has received continuous nebulized salbutamol for the last 40 minutes. They are able to talk in short phrases only. They are sitting in a tripod position and using accessory muscles. They are mildly agitated

1. Please describe your initial management
2. What investigations are appropriate and why?

The patients (venous) blood gas is as follows:

pH 7.38

pCO2 44

pO2 65

HCO3 22

BE -3

1. Please describe the gas and discuss the clinical significance
2. The nursing staff states the patient needs something to calm them down. How do you respond to this request?
3. Discuss your approach to intubation in this patient.

Case 2

A 75-year-old man is brought to the ED with worsening dyspnea. He has a history of COPD.

On arrival he is in extremis, with RR 45, O2 sats 89% on high flow O2, BP 100/60 and HR 155.

Please describe how you would decide whether this patient should be intubated?