Dislodged ETT in a proned patient:

Set-up:	MANIKIN IS PRONE
Lines/access:	RIJ CVC & left radial arterial line
Infusions:	Sedatives, muscle relaxant, noradrenaline, 1L crystalloid at 60 ml/hr
Airway:	ETT sitting supraglottically 16 cm at the lips (tip must be sitting in laryngeal inlet, balloon above cords
Ventilator:	PC-SIMV, Vt 180 ml, PEEP 8, RR 22 (needs hole in test lung to simulate leak)
Other:	Airway trolley 2L reservoir bag with hole in. Occluded with a clamp that can be removed to progress leak

Clinical Setting:

I: You are the SHO, no registrar on site/unit, you are called by the nurse of the patient in bed 3
S: Nurse reports patient is due to be de- proned.
B: 50 year old male with ARDS secondary to Pneumococcal pneumonia. Intubated yesterday (Size 8.0 ETT, rade II view, 24 cm at the teeth), proned. On meropenem. For full escalation. PMHx T2DM, HTN, NKDA.
A: Needs to be de-proned.
R: Called for help

Potential Clinical Course:

- Initially **A** ETT, in situ, 16 cm at the teeth **B** SpO_2 90% on FiO_2 0.8 PC-SIMV, Pinsp 20, PEEP 8, Vt 180, RR 22, $ETCO_2$ 8.8kPa, good bilateral air entry, **C** HR 70bpm SR, BP 110/60, **D** Sedated, paralysed
- After de-proning: **A** ETT in situ, 16 cm at the teeth; **B** SpO_2 85% on FiO_2 1.0 PC-SIMV, Pinsp 20, PEEP 8, Vt 100, RR 22, $ETCO_2$ no trace, no air entry, **C** HR 70bpm SR, BP 99/55, **D** Sedated, paralysed
- Examination reveals ETT sitting supraglotically
- Saturations continue to fall
- Remove ETT
- Proceed with attempted re-intubation – impossible intubation – proceeds down DAS algorithm
- Difficult but possible FM ventilation – only with 2 handed technique, repositioning and adjuncts
- Calls for help and hands over patient

This Simulation Scenario has been written by Dr Louise Ma, edited by Dr Lina Grauslyte, produced by Dr Melia and approved by the FICM Education Sub-Committee. If you have any queries, please contact FICM via contact@ficm.ac.uk.

The Faculty of Intensive Care Medicine

Info Sheet For Faculty

- Initial settings:
  - SpO_2 90% on FiO_2 0.8
  - Pinsp 20, PEEP 8, Vt 180ml
  - $EtCO_2$ 8.8 kPa
  - RR 22/min
  - Good bilateral air entry
  - HR 70 bpm SR
  - BP 110/60

- Progress to:
  - SpO_2 85% on FiO_2 1.0
  - Pinsp 20, PEEP 8, Vt 100ml
  - $EtCO_2$ – no trace
  - No air entry bilatraly
  - HR 70 bpm SR
  - BP 99/55

- Further observations depend upon actions

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Faculty Roles:

Bedside Nurse 1:

- You are a CNS
- You are looking after a 50M patient with ARDS that was proned 18 hours ago and needs to be deproned
- You have informed your SHO of this and are now preparing for deproning
- You have no other concerns except that the patient's tidal volumes are a little low, but you'd expect that with ARDS
- You take direction well, and can perform tasks asked if you in a timely fashion, you just lack impetus
- During the failed intubation process you repeatedly suggest trying to intubate the patient again

Bedside Nurse 2:

- You are a new starter – you have never seen a proned patient before and you have never seen airway emergency before
- You are quite startled when asked questions/given directions, requiring instructions to be repeated to you
- If the candidate names equipment using technical terms then you inform them that you don't know what that is eg bougie
- You are keen to help, but are unwilling to do anything beyond your skill set

HiLLO: 10

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