

Sample scenario:

A 56 year old man has been transferred from the medical ward to theatre for intubation due to respiratory failure secondary to COVID-19 pneumonitis. He has been accepted to ICU and will need to be intubated prior to admission.

He is receiving oxygen via a non-rebreathe mask with a 15L/min flow and has a SpO₂ of 93%. He appears short of breath with a RR of 30 and is able to speak in short sentences. He is cardiovascularly stable and has a GCS of 15/15. He has been informed and consented to intubation and ICU admission.

The patient has IV access and the following monitoring: SpO₂, non-invasive blood pressure, 3 lead ECG

Scenario set up:

Cold room:

- Equipment trolley for plan A intubation
- Equipment required for plan B intubation
- Drugs required for rapid sequence induction
- PPE donning station
- Intubation action cards present
- PPE donning action cards present

Hot room:

- Mannequin on theatre trolley with monitoring attached.
- Anaesthetic machine with 2 HME filters (one at proximal and one at distal end)
- PPE doffing station

Scenario steps:

1. Run through scenario verbally in cold room and designation of roles to participants – 1 doctor for airway management, 1 doctor to administer induction drugs, 1 anaesthetic assistant to assist with airway management, 1 runner to assist with equipment from cold room
2. Check equipment prior to entering scenario.
3. Donning PPE with buddy
4. Enter room with equipment and communicate verbally with patient
5. Feel front of neck for cricothyroid membrane and mark with pen prior to induction
6. Adequate pre-oxygenation by airway – flow of 5L/min for 5 min of 100% O₂
7. Administering induction drugs
8. Turning off oxygen flow to the anaesthetic machine prior to removal of face mask
9. Intubation with video laryngoscope
10. Inflation of endotracheal tube cuff by anaesthetic assistant
11. Connection to the anaesthetic circuit and check for end tidal CO₂ to confirm tube position (following cuff inflation)
12. Tie endotracheal tube in with intensive care specific tube ties

13. Clamp endotracheal tube and turn off anaesthetic machine, disconnection of circuit to connect in-line suction device. Reconnect anaesthetic machine and recommence ventilation following removal of endotracheal tube clamp.

Break in scenario for participant and facilitator feedback.

14. Return to step 8 – failed intubation with grade 3 view following use of video laryngoscopy.
15. Insert iGel and connect anaesthetic circuit and commence ventilation
16. Anaesthetic assistant to ask runner for 'plan B' airway equipment
17. Intubation of trachea with ambuscope, railroad of aintree catheter over ambuscope through iGel.
18. Remove ambuscope and remove iGel whilst keeping aintree catheter in trachea.
19. Railroad endotracheal tube over aintree catheter. A macintosh laryngoscope may be required to use as 'tongue depressor'.
20. Return to step 9 of above scenario

End of scenario, time for participant and facilitator feedback.

Following scenario, practice scalpel cricothyroidotomy procedure on mannequin and watch RCoA video front of neck access video.

Learning objectives:

- Ensure adequate preparation prior to entering hot room
- Ensure PPE donned correctly using buddy system
- Adequate pre-oxygenation using two handed technique with good seal around the face
- Remember to turn oxygen flow off prior to intubation and every time anaesthetic circuit is broken
- Ensure endotracheal tube clamp is used whenever anaesthetic circuit is broken
- Clear and adequate communication required throughout, using active listening techniques
- Run through of plan B intubation
- Acknowledge that adequate airway examination and assessment may not be possible in this scenario

Scenario participants: 2x anaesthetic nurses/ODPs, 2x doctors (one designated airway management, one designated drugs and second intubator)

Facilitators: 2x consultant anaesthetists with MERIT 'train the trainers' training

Equipment and supplies:

- 'hot room' (theatre)
- 'cold room' (anaesthetic room)
- Monitoring as per AAGBI

- ETT with lubricant size 7 and 8
- PPE: FFP3 masks, surgical hats, visors, surgical gowns, surgical gloves
- Laryngoscopes: Macintosh 3 and 4 direct laryngoscopes, iView video laryngoscope
- Ambuscope
- Aintree intubating catheter
- iGel size 4 and 5
- Gum elastic bougie
- Surgical cricothyroidotomy set