Management of Unanticipated Difficult Tracheal Intubation

2025

DAS AirBite: Plan A – Tracheal Intubation (15-minute teaching session for airway managers)

Background and content:

Activities:

- Review and discuss the Plan A algorithm
- Discuss options for peroxygenation
- Practice videolaryngoscopy using locally available videolaryngoscopes (VL)
- Practice confirming successful tracheal intubation using the two-point check and a sustained capnography trace

Equipment required:

- Intubatable manikin
- Videolaryngoscope(s) - Mac and Hyperangulated blades
- Bougie, stylet or flexible bronchoscope
- Endotracheal tube

Intended Learning Objectives:

Learners should be able to:

- Describe the key steps of Plan A – Tracheal Intubation
- Describe and evaluate peroxygenation methods
- Demonstrate videolaryngoscopy and safe endotracheal intubation
- Apply the two-point check to verify successful tracheal tube placement
- Describe and analyse Plan A principles in both successful and failed intubation scenarios, focusing on team communication, role allocation and human factors.

1. Plan A algorithm review

What's new in Plan A in the 2025 algorithm?

- Use of a VL for tracheal intubation whenever possible
- Confirmation of successful tracheal intubation with a two-point check
- Failure of Plan A can be declared before 3+1 attempts
- Declaring the chosen technique for eFONA at the end of failed Plan A
- Priming for eFONA should start at the end of Plan A – kit should be immediately available

Discuss why team communication is important?

Facilitator can refer to Supplementary file 'Human Factors considerations in Plans A-D'

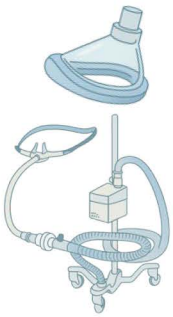
2. Peroxygenation discussion

What is peroxygenation?

The process of continuous oxygen delivery from before induction of anaesthesia (pre-oxygenation), during apnoea (apnoeic oxygenation), and throughout attempts at airway management (e.g. laryngoscopy) until the airway is secured.

How can it be performed?

- Positive pressure pre-oxygenation in head-up position with NIV, facemask ventilation (FMV) with CPAP or High Flow Nasal Oxygen (HFNO)
- Do not delay administration of neuromuscular blockade to check FMV
- In the anatomically or physiologically difficult airway, consider HFNO



3. Videolaryngoscopy skills workshop

Faculty demonstration using all VLs available within local setting, highlighting:

- The technique for VL differs depending on type of VL and in many instances is not the same as direct laryngoscopy.
- Use of a stylet, bougie or flexible bronchoscope with hyperangulated VL
- Methods of optimisation – e.g. adjust positioning, change of VL, external laryngeal manipulation, airway suction, removal of cricoid force, ensuring full paralysis.

Learners to then practise tracheal intubation on intubatable manikin using all VLs available.

4. Verification of successful tracheal tube discussion

How do you verify successful tracheal tube placement?

Two-point check:

1. Sustained exhaled CO2 (waveform capnography)

2. Visual confirmation of tracheal tube through vocal cords

Follow up activities:

1. Signpost to DAS website for full guideline, algorithms and educational videos
2. Consider reviewing other DAS educational materials including AirDrills for low fidelity simulation, and AirSim scenarios for high fidelity simulation.

Feedback here: