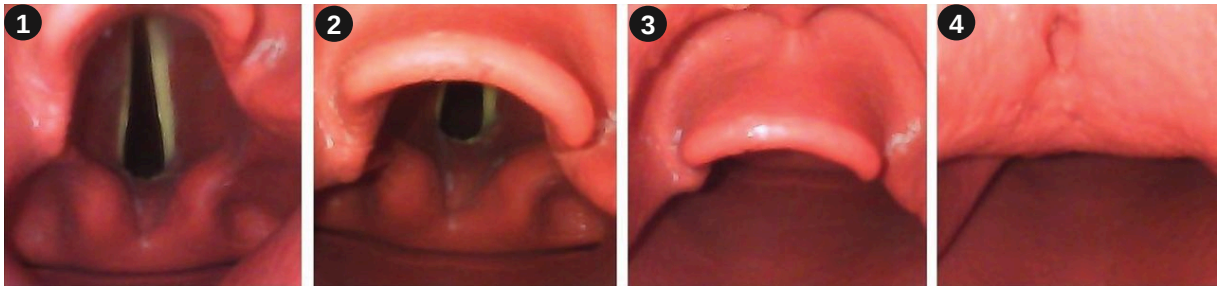
Endotracheal Intubation

ALS PROCEDURE AP-01

INDICATION

- Patients that are ≥ 15 years old with respiratory compromise or in cardiac and/or respiratory arrest or where the airway cannot be adequately maintained by BLS techniques.
- Cormack-Lehane Grade of 1 or 2.



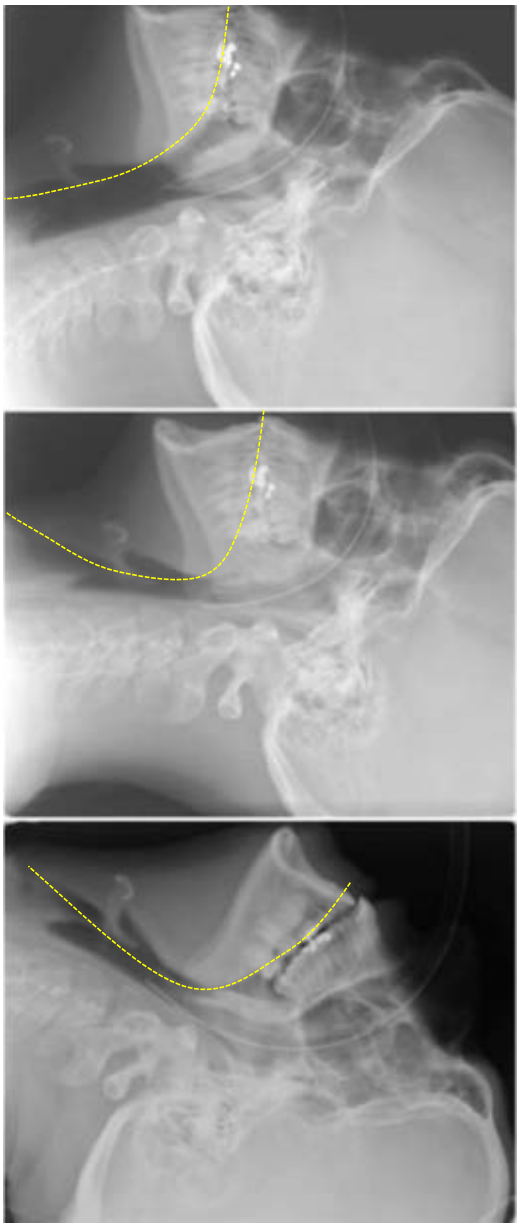
Grade 1	Grade 2	Grade 3	Grade 4
Full-view of vocal cords	Partial-view of vocal cords	Epiglottis visible only	No identifiable airway structures

PROCEDURE

- Prepare, position and oxygenate the patient with 100% Oxygen. Ideal patient positioning is keeping the ears in line with the sternal notch.
- Consider use of Video Laryngoscopy device when available.
- Select ≤ size 7.0 ET tube and endotracheal tube introducer (Bougie); have suction ready.
- When performing direct laryngoscopy, use of an endotracheal tube introducer (Bougie) device and a two person technique is recommended.
- Using the laryngoscope, visualize vocal cords.
- Determine the Cormack-Lehane Grade upon direct laryngoscopy. If the patient has a Cormack-Lehane Grade of 3 or 4, do not proceed with Endotracheal Intubation, return to **Airway/Respiratory Management M-20** and consider **King Tube Intubation AP-02**.
- Limit each intubation attempt to 30 seconds with BVM between attempts. For patients in cardiac arrest this is not necessary as long as chest compressions are continuous.
- Visualize tube passing through vocal cords.
- Inflate the cuff with 3 – 10 mL of air.
- Apply **Waveform Capnography AP-12**.
- Auscultate for bilaterally equal breath sounds and absence of sounds over the epigastrium. If you are unsure of placement, remove tube and ventilate patient with a BVM.
- If ET intubation efforts are unsuccessful after the 1st attempt, return to **Airway/Respiratory Management M-20** and re-evaluate the airway positioning before the 2nd attempt.
- If ET intubation efforts are unsuccessful after the 2nd attempt, return to **Airway/Respiratory Management M-20** and consider **King Tube Intubation AP-02**.
- Patients who have an advanced airway established should be secured with tape or a commercial device. Devices and tape should be applied in a manner that avoids compression of the front and sides of the neck, which may impair venous return from the brain.

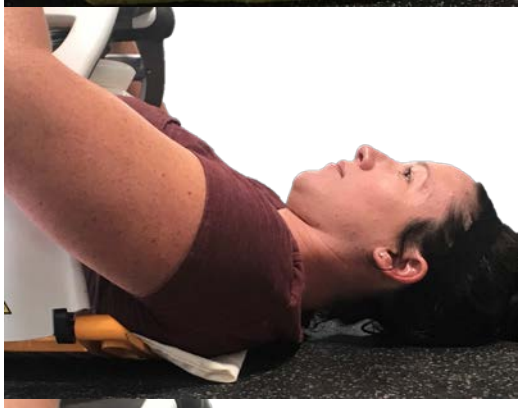
KEY CONCEPTS

- If the patient regains consciousness while intubated, do not extubate. Use restraints as necessary to prevent uncontrolled extubation. Consider **Sedation AP-14** if patient becomes awake and aware.
- If the patient has a suspected spinal injury:
  - Open the airway using a jaw-thrust without head extension.
  - If airway cannot be maintained with jaw thrust, use a head-tilt/chin-lift maneuver.
    - Manually stabilize the head and neck rather than using an immobilization device during CPR.



Ear-to-Sternal Notch ✓

Neutral X



Extension X

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