General Considerations In Airway Management:

- The primary goals of Airway Management are oxygenation and ventilation
- Consider CPAP in patients who are in respiratory failure who are relatively alert and compliant.
- Surgical cricothyrotomy may be used when all other means of airway control have failed or there is reasonable anticipation of failure.
- Complete monitoring should be instituted to include blood pressure, ECG, ETCO2 and pulse oximetry.
- The Bougie must be used to facilitate ALL orotracheal intubations while using the channeled King Vision Blade.

Bag-Valve-Mask Ventilation:

- Utilization of the Ambu bag shall occur when utilization of the ventilator is not practical. The Ambu bag may be used in conjunction with an ET tube, SGA, or with a facemask.
- The target ventilator rate, when using the Ambu bag, should be 10 breaths/minute for adults and 20 breaths/minute for pediatrics/infants. This is for all patients whether an ET tube, SGA, or facemask, is being utilized. The rate can be increased to target an ETCO2 between 35mmHg and 45mmHg.
- Oropharyngeal Airways should be used in unconscious patients or patients without a gag reflex.
- Nasopharyngeal Airways are better tolerated in conscious patients or in the presence of gag reflex.

Intubation Attempt:

- An intubation attempt has occurred when the blade of any laryngoscopic device crosses the margins of the lips.
- **Utilizing the King Vision with channeled blade and bougie is expected for all attempts. Any exception to this should be justified within the PCR.**
- If not successful after 2 attempts per provider (max 4 attempts) at intubation, use SGA, or BVM for duration of care.

Preoxygenation – Rule of 15's

- Apply nasal cannula at 15 LPM for passive oxygenation
- Utilize NRB at 15 LPM to achieve SpO2 >94%. If needed convert to BVM 15 LPM
- Apply PEEP up to 15 cmH20
- Elevate Head of Bed 15 degrees

Timing Of Attempts:

- The duration of attempt at intubation should be based on desaturation in the presence of a consistent and reliable waveform SpO2.
- PaO2 drops significantly when SpO2 values fall below 90%. Intubation attempts should be stopped and the patient ventilated via BVM if SpO2 falls below 90%.
- Maintaining SpO2 above 94% for three minutes provides denitrogenation and allows for a longer intubation period prior to desaturation.

Device:

- The King Vision device with the channeled blade has been shown to improve First Attempt Success Rate (FASR) for EMS intubation and is the primary device for all intubations. The primary reason for failure of this device is the provider failing to suction prior to attempt.

Position:

- Consider the position of the patient and potential difficulty in management of the airway. While it is not practical or possible to place all patients in the ideal position for intubation in the field, it is an important consideration in evaluating your strategy for first attempt success.
- Align external ear canal with sternal notch. Consider ramping in obese patients
- Elevate head of bed to 15 degrees

Bimanual Manipulation:

- Utilize bimanual manipulation to improve glottic view.
- Have an assistant place their hand on the thyroid cartilage. The intubator's hand should manipulate the anterior neck via the assistant's hand to obtain glottic visualization. Once the optimum view is obtained, the intubator releases their hand allowing the assistant to maintain the view.

Bougie Use:

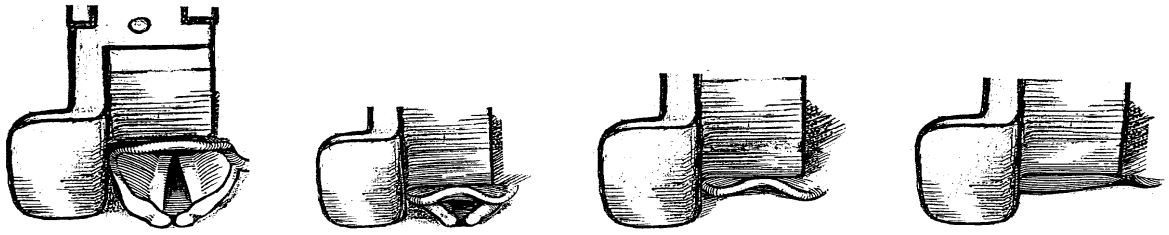
- Advance the bougie, continually observing its distal tip, with the concavity facing anteriorly.
- Visualize the tip of the bougie passing through the glottic opening when possible. If unable to visualize the glottic opening, utilize tracheal ring clicks, or bougie stoppage at the carina as indication of correct placement.
- Pass the ET tube over the proximal end of the bougie and through the glottic opening, limiting movement of the bougie as much as possible. Advance tube while maintaining view until the cuff has passed the cords.
- Hold the ET tube securely in place and remove the bougie.

Endotracheal Tube Verification And Aftercare:

- Following ET tube insertion, **placement must be verified utilizing capnography**. Other indirect indicators of proper placement include visible chest rise/fall, misting of ET tube, bilateral breath sounds, absent sounds over epigastrium, or colorimetric CO2.
- **IF PROPER TUBE PLACEMENT CANNOT BE CONFIRMED WITH ABSOLUTE CERTAINTY THE TUBE SHOULD BE REMOVED IMMEDIATELY AND THE AIRWAY MANAGED BY OTHER MEANS.**
- Tube placement must be monitored throughout the clinical encounter.
- After confirming proper placement, the endotracheal tube should be secured in place, and the depth should be noted and monitored.
- The use of a cervical collar to restrict movement of the head and neck to assist in preventing tube displacement is recommended.
- Place an OG or NG tube to clear stomach contents after the airway is secured with an ET tube.

Airway Rating:

- All airways should be assessed for the following
  - Cormack Lahane Scale:



Grade 1: Entire glottic aperture visible
Grade 2: Posterior vocal cords and/or arytenoids visible
Grade 3: Epiglottis only visible
Grade 4: No glottic structures visible

- POGO (Percentage of Glottic Opening):
  - This score represents the percentage of visualization of the linear span extending from the anterior commissure to the interarytenoid notch of the vocal cords, with a score of 100 representing visualization of the entire span