

**CONFIRMATION OF AIRWAY PLACEMENT
STATEWIDE ALS PROTOCOL****Criteria:**

- A. Patient who has ET tube or alternative airway device inserted by EMS personnel.

Exclusion Criteria:

- A. None

System Requirements:

- A. Every ALS ambulance service must carry and use an **electronic wave-form ETCO₂ detector device** for confirmation of endotracheal tube/ alternative airway device placement.

Procedure:

- A. Insert ETT² or Alternative Airway Device
- B. Attach electronic ETCO₂ monitor to BVM.
- C. Ventilate³ while simultaneously:
 - 1. Assuring “positive” CO₂ wave with each ventilation.
 - 2. Verifying absence of gastric sounds.
- D. Verify presence of bilateral breath sounds.
- E. Secure tube.
- F. Continuously monitor waveform ETCO₂.⁴
- G. Reassess bilateral breath sounds and absence of gastric sounds after each move or transfer of the patient.
- H. Document all of the above.

Notes:

- 1. Colorimetric ETCO₂ detectors may give false negative results when the patient has had prolonged time in cardiac arrest. EDD aspiration devices may give false negative results in patients with lung disease (e.g. COPD or status asthmaticus), morbid obesity, late stages of pregnancy, or cardiac arrest. **ALS services may consider carrying colorimetric ETCO₂ detectors or EDD aspiration devices as back-ups in case of electronic device failure, but must primarily use the wave-form ETCO₂ detector as described in this procedure.**
- 2. If ETT is not visualized to pass through a good view of glottic opening, then the chance of misplaced esophageal intubation is increased and transmitted sounds during auscultation alone may lead to misdiagnosed tube position.
- 3. Immediately remove ETT or **Alternative Airway Device** if any step reveals evidence of lack of lung ventilation. If there is any doubt about adequate ventilation with an ETT or Alternative Airway Device, remove the device and ventilate with BVM.
- 4. Quantitative ETCO₂ readings may be beneficial in assessing the quality of CPR or as an indicator of the prognosis for successful resuscitation.

Performance Parameters:

- A. Review all ETI and **Alternative Airway Device** insertions for documentation of absence of gastric sound, presence of bilateral breath sounds, and appropriate use of a confirmation device.
- B. If systems have the capability of recording a capnograph tracing, review records of all intubated patients to assure that capnograph was recorded.
- C. Document ETCO₂ reading immediately after intubation, after each movement or transfer of patient and final transfer to ED stretcher.