

EtCO₂ – Wave Form Monitoring (≥ PL2)

Clinical Indications:

1. All patients with a potential or actual change in metabolism, circulation, perfusion, and/or respiratory function
2. Hypoventilation states
3. Hypoperfusion / shock states
4. Shortness of breath / bronchospastic disease / reactive airway disease
5. Chest pain with respiratory distress
6. Congestive heart failure
7. All patients with advance airways or receiving CPR
8. Patients experiencing altered mental status
9. Any patient receiving or have received sedation medications or magnesium

Contraindications:

1. None

Precautions

1. A patient with a normal cardiac and pulmonary function will have an EtCO₂ level between 35-45 mmHg.
2. When no CO₂ is detected, then 3 factors must be quickly evaluated for:
 - a. Loss of airway function, improper tube placement, apnea
 - b. Loss of circulatory function, massive pulmonary emboli, cardiac arrest, exsanguination
 - c. Equipment failure, tube dislodgement or obstruction
3. All advanced airway patients will have EtCO₂ capnography applied and pre/post intubation readings documented in the ePCR.

Preparation for Use:

1. Turn on monitor and verify EtCO₂ is on and functioning.

Procedure:

1. Connect EtCO₂ tubing to the monitor before connecting to the patient's airway.
2. Connect to the patient's airway or appropriate place nasal prongs.
3. Record and confirm waveform.
4. For patients meeting the indication for capnography, EtCO₂ monitoring should continue throughout care and transport.
5. Continuous capnography should be monitored as airway procedures are performed to aid in verification, identification, or correction of an airway problem.
6. Any loss of EtCO₂ or waveform should be immediately evaluated for loss of airway and/or circulation, or equipment failure and promptly addressed/resolved.
7. In all patients with a pulse, an EtCO₂ reading > 20 is expected.
8. In the pulseless patient, an EtCO₂ waveform with a value > 10 may be utilized to confirm the adequacy of an airway to include BVM and advance airway management.