Waveform Capnography (Capnometry and Capnography)

Purpose: The purpose of this procedure is to define the indications for use of capnography/ capnometry and to describe the physical procedure for use, if available.

Indications:

1. Determining that tracheal rather than esophageal intubation has taken place.
   A. Capnography/Capnometry **must** be utilized to confirm endotracheal tube placement.

2. Continuous monitoring of the integrity of the ventilatory circuit, including supraglottic or advanced airways.
   A. Capnography/Capnometry **may** be utilized in patients with supraglottic airways or receiving assisted ventilations without advanced airways (used between the face mask and the bag-valve)
   B. Capnography/Capnometry **may** be used for patients on transport ventilators

3. Monitoring severity of pulmonary disease (bronchospasm) and evaluating response to therapy
   A. Capnography/Capnometry **may** be utilized in patients with respiratory distress, or with signs and symptoms suggestive of acidosis.

4. Monitoring therapy intended to increase coronary blood flow, reflected in CO_2 elimination
   A. Capnography/Capnometry **may** be utilized in patients receiving CPR (even without advanced airway placement), cardiac pacing, or when receiving medications that are intended to increase cardiac output, as a means to determine the physiological effectiveness of interventions

Contraindications:

1. There are no absolute contraindications to capnography/Capnometry

<u>Pre-Medical Control</u>
PARAMEDIC
Procedure:

1. Attach the CO_2 sensor to the monitoring device and to the advanced airway, or between the mask and the bag valve in the ventilated patient that does not have an advanced airway placed, or using the nasal cannula style sensor for patients not receiving assisted ventilation
2. Note the CO_2 level and waveform characteristics
3. Any loss of CO_2 detection or waveform may indicate an airway or ventilation problem and should be investigated, corrected and documented.
4. Document the use and results in the Patient Care Record (PCR).

Note: If a **"0"** value, or no value, is read for a patient:

- Ensure that the patient has adequate spontaneous circulation and ventilation, or that effective CPR is being performed
- Verify that the tubing is properly connected to the monitor and that there are no kinks in the tubing.
- If the tubing is found not to be the problem and an advanced airway has been placed, remove the advanced airway immediately and assist ventilations as needed with manual ventilation techniques.