Applications on non-intubated patients include:
- Assessment of asthma and COPD
- Documented monitoring during procedural sedation
- Detection of apnea or inadequate breathing
- Measurement of hypoventilation
- Evaluation of hyperventilation

Examples:
- Plateau has curved, "shark-fin" appearance
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  - COPD

- Slow rate with increased EtCO₂
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- Decreased EtCO₂, variable waveform
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Applications on intubated patients:

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- Monitoring and detection of ET tube dislodgment
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Examples:
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- ET tube disconnected, dislodged, kinked or obstructed
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- Decreasing EtCO2 with loss of plateau
- ET tube cuff leak or deflated cuff
- ET tube in hypopharynx
- Partial obstruction
- CPR Assessment
- Attempt to maintain minimum of 10mmHg
- Return of spontaneous circulation

Applications:
Capnography is an objective monitoring tool for patients in respiratory distress and patients undergoing procedural sedation. It may be used to confirm, monitor and document ET tube intubation. A nasal-oral cannula is used to assess, monitor and document the respiratory status of the non-intubated patient. EtCO2 monitoring with LIFEPAK® defibrillator/monitors may be used on patients of any age.

Monitoring and Printing:
Capnography waveforms on the monitor screen are condensed to provide adequate information in the 4-second view. The correct respiratory rate is displayed in breaths per minute (bpm). Printouts of the waveforms are in real time and therefore may differ in duration.

Note:
Examples are illustrations for training purposes. Level of sedation and severity of condition may affect respiratory rate and EtCO2 level in patients.

Troubleshooting Tips for EtCO2 Monitoring with LIFEPAK® defibrillator/monitors:

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Capnography • Non-intubated Patient

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End-tidal CO₂ (EtCO₂) is the measurement of carbon dioxide (CO₂) in the airway at the end of each breath. Capnography provides a numeric reading (amount) and graphic display (waveform) of the EtCO₂ throughout the respiratory cycle.

CO₂ produced by cells, is transported via the vascular system and diffused into the alveoli to be exhaled. PaCO₂, the partial pressure of CO₂ in arterial blood, is normally 2–5mmHg higher than EtCO₂ in the airway.
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Application of Capnography

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Capnography • Intubated Patient

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Decreasing EtCO2 with loss of plateau:

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CPR Assessment:

- Attempt to maintain minimum of 10mmHg

Sudden increase in EtCO2:

- Return of spontaneous circulation
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