# CAPNOGRAPHY (END TIDAL CO₂ MONITORING)

<table>
<thead>
<tr>
<th>ADULT</th>
<th>PEDIATRIC (≤34 KG)</th>
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<tbody>
<tr>
<td><strong>BLS</strong></td>
<td><strong>Universal Protocol #601</strong></td>
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| **BLS Optional** | **Pulse Oximetry – O₂ administration per Airway Management Protocol #602** |

## ALS Standing Orders

**Intubated Patients**
- For ET placement verification – use ETCO₂ detection or if ETCO₂ monitor fails use a CO₂ colorimetric device

**Non-Intubated Patients**
- Apply side stream or in-line ETCO₂ in conjunction with the delivery device being used
- ETCO₂ monitoring should be continued with administration of nebulized medications

## Base Hospital Orders Only

- As needed

## Notes

- Document ETCO₂ numeric values and corresponding wave form capnography on the PCR.
- Take readings after 1 minute, at regular intervals for trends, and upon ED arrival.
- If the patient is intubated, take additional reading after moving the patient to the hospital bed.
- Indications:
  - Confirmation, monitoring and documentation of endotracheal intubation
  - Assessment, monitoring and documentation of respiratory status of the non-intubated patient experiencing respiratory distress, including but not limited to the use of HPCPR and CPAP
  - As an additional tool to assist in evaluating any patient in respiratory distress

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**Bronchospasm (shark-fin appearance)**  
**Asthma, COPD**  
**Hyperventilation**  
**Decreased EtCO₂ — Apnea, Sedation**  
**Sudden loss of waveform**  
**ETT disconnected, dislodged, kinked or obstructed, loss of circulatory function**  
**Decreasing EtCO₂**  
**ETT cuff leak, ETT in hypopharynx, partial obstruction**  
**Sudden increase in EtCO₂**  
**Return of ROSC**  
**CPR assessment**  
**Attempt to maintain minimum of 10 mmHg**