# Clinical Use Cases for Capnography

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<th>Location</th>
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<th>Standards/Recommendations for EtCO₂ Monitoring</th>
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| Hospital-based or free-standing sleep laboratory              | Sleep studies                                                                        | **American Association for Sleep Medicine (AASM)**<sup>*</sup>  
Scoring manual requires monitoring of either transcutaneous PCO₂ or end-tidal CO₂ for pediatric sleep studies |
| Outpatient or ambulatory surgery centers; special procedures area (e.g., cardiac catheterization lab, endoscopy) | Procedural or conscious sedation — adequacy of ventilation                            | **American Society of Anesthesiologists (ASA) Standard of Basic Anesthetic Monitoring (updated 2011)**  
Requires capnography during procedural sedation |
| General medical/surgical hospital ward                        | Patient safety during patient-controlled analgesia (PCA) or continuous narcotic administration | **The Joint Commission Sentinel Event Alert 2004**  
Recommends capnography monitoring for patients receiving opiates that can suppress respiration |
| Emergency; crash cart                                         | Cardiopulmonary resuscitation — confirm endotracheal tube placement, determine effectiveness of chest compressions (CPR) and detect Return of Spontaneous Circulation (ROSC) | **Anesthesia Patient Safety Foundation (APSF)**<sup>**</sup>  
Recommends continuous ventilation monitoring for all postoperative patients and patients receiving supplemental oxygen to mitigate the effects of opioid-induced respiratory depression. |
| ICU, Emergency Department                                     | Airway management for all intubated patients                                           | **American Heart Association (AHA) 2010 Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care**  
Recommend continuous waveform capnography during CPR on intubated patients |

<sup>*</sup> The AASM Manual for the Scoring of Sleep and Associated Events; Rules, Terminology and Technical Specifications<br>
<sup>**</sup> APSF Essential Monitoring Strategies to Detect Clinically Significant Drug-Induces Respiratory Depression in the Postoperative Period, June 2011<br>
<sup>***</sup> Cook TM, Woodall N, Frerk C. British Journal of Anaesthesia 2011; 106(5):617-31<br>  

Nonin Medical capnographs provide accurate, first-breath EtCO₂ value and waveform — ideal for spot check and continuous EtCO₂ monitoring.