



Clinical Use Cases for Capnography

| Location | Clinical Application | Standards/Recommendations for EtCO ₂ Monitoring |
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| Hospital-based or free-standing sleep laboratory | Sleep studies | American Association for Sleep Medicine (AASM)* Scoring manual requires monitoring of either transcutaneous PCO ₂ or end-tidal CO ₂ 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 Anesthesia Patient Safety Foundation (APSF)** Recommends continuous ventilation monitoring for all postoperative patients and patients receiving supplemental oxygen to mitigate the effects of opioid-induced respiratory depression. |
| Emergency; crash cart | Cardiopulmonary resuscitation – confirm endotracheal tube placement, determine effectiveness of chest compressions(CPR) and detect Return of Spontaneous Circulation (ROSC) | American Heart Association (AHA) 2010 Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Recommend continuous waveform capnography during CPR on intubated patients |
| ICU, Emergency Department | Airway management for all intubated patients | Royal College of Anaesthetists and Difficult Airway Society studies, 2011*** Recommend capnography for all intubated patients |

* The AASM Manual for the Scoring of Sleep and Associated Events; Rules, Terminology and Technical Specifications

** APSF *Essential Monitoring Strategies to Detect Clinically Significant Drug-Induced Respiratory Depression in the Postoperative Period*, June 2011

*** Cook TM, Woodall N, Frerk C. *British Journal of Anaesthesia* 2011; 106(5):617-31
Cook TM, Woodall N, Harper J, Benger J. *British Journal of Anaesthesia* 2011; 106(5):632-42

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