

Safe and Effective Pain Management

Carbon Dioxide (CO₂) Monitoring

Safe and Effective Pain Management Strategies—Part 4 of 4

Capnography has expanded to Medical-Surgical and Progressive Care units.

Capnography is:

- An indicator of the level of carbon dioxide in the blood by continuous monitoring of end-tidal CO₂ (EtCO₂).
- Valuable to diagnose the simple presence or absence of respirations, airway obstruction, or respiratory depression.
- Capable of significantly clarifying the respiratory picture regarding over-sedation, and when used in conjunction with oxygen saturation can dramatically enhance the overall picture of the patient's respiratory status.
- More effective than pulse oximetry in providing initial warning of respiratory depression in patients receiving supplemental oxygen.



The number is capnometry, which is the partial pressure of CO₂ detected at the end of exhalation

Normal EtCO₂ range is 35-45 mm Hg

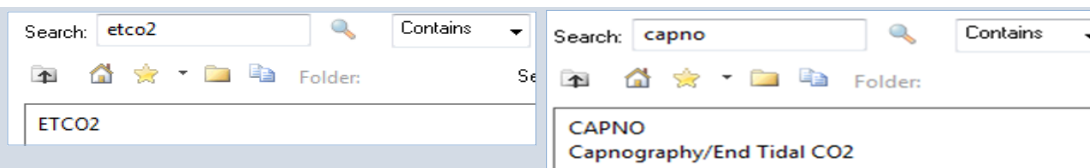
Limitations:

- EtCO₂ has limitations based on oxygen flow or breathing mechanics:
 - Mouth breathers or patients who are talking may result in nuisance alarms
 - May need to be removed when patient is eating
 - Transcutaneous CO₂ monitoring can be used for high-risk patients requiring high flow oxygen or bi-pap
- EtCO₂ does not correlate exactly to an ABG.

Consider EtCO₂ for:

- Patients with obstructive sleep apnea (especially if refusing to wear c-pap).
- Patients on high-dose opioids or multiple sedating medications with potential for dose stacking effects.
- Patients at risk for airway compromise or hypoventilation.

How to Order EtCO₂:



For more information, contact your respiratory care practitioners or visit: www.sharp.com/physicians

Content is available for CME at: www.sharp.com/cmeportal

We are the stewards of safe and effective pain management.

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