

Bronchoscopy: Procedural Sedation & Analgesia; Capnography Monitoring (Respiratory Therapy)

Site Applicability

St. Paul's Hospital, Mount Saint Joseph Hospital

Practice Level

Respiratory Therapy, Registered Nurse

Need to Know

Procedural Sedation and Analgesia (PSA) is routinely used in the bronchoscopy suite for diagnostic and therapeutic bronchoscopy procedures. Capnography monitoring will be used on all bronchoscopy patients receiving procedural sedation in the bronchoscopy suite.

Patients undergoing PSA have a depressed level of consciousness and may experience respiratory depression. Continuous capnography monitoring is recommended for moderate-to-deep sedation, as it is difficult to predict individual patient response to sedation. Deviations of end-tidal CO₂ from baseline can be an early warning sign of ventilatory depression such as apnea, upper airway obstruction, laryngospasm, bronchospasm or respiratory failure. Capnography can be a more sensitive measure of respiratory depression as it has been observed in studies that a change in capnography preceded a change in oxygen saturation or respiratory rate.

The Respiratory Therapist will promote patient safety and provide full respiratory assessment and monitoring during procedural sedation and provide the appropriate intervention as necessary.

Refer to [Procedural Sedation Protocol](#) for the complete Protocol including the responsibilities of personnel involved.

Equipment and Supplies

- Capnography monitor with pulse oximeter
- Smart CapnoLine Guardian O₂/CO₂ Oral-Nasal Cannula with bite block
- Manual resuscitator with mask and oral airways
- Suction equipment

Procedure

Refer to [Procedural Sedation Protocol](#)

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Documentation

ETCO₂ will be monitored and recorded in Cerner. The physician will be notified of changes in ETCO₂ values during the procedure.

Related Documents

[Procedural Sedation Protocol](#)

[B-00-12-12087 Capnography with Root ISA](#)

References

1. Kodali, BS. Capnography outside the operating rooms. *Anesthesiology* 2013; 118(1): 192-201.
2. Kruass, B & Hess, DR. Capnography for procedural sedation and analgesia in the emergency department. *Annals of Emergency Medicine* 2007; 50(2): 172-181.
3. AARC Clinical Practice Guideline. Bronchoscopy assisting – 2007 revision & update. *Respiratory Care* 2007; 52(1): 74-80.

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