

# Who Should Administer Conscious Sedation?

## Part Three: Sedation competence

The previous article argued that competence to administer conscious sedation (CS) should move away from competence based on a practitioner's specialty to competence based on skills and knowledge.

The UK's General Dental Council says 1: "Dentists have a duty of care to administer conscious sedation only within the limits of their knowledge, training, skills and experience and healthcare professionals should have completed relevant postgraduate education and training and have clinical experience of the particular conscious sedation technique." This principle is equally applicable outside dentistry. In fact, all international guidelines agree with the principles expressed above.<sup>2</sup> This article will outline the competence every sedation practitioner should have when he plans to administer CS.

Sedation competence: practical considerations Patient assessment and selection

According to the American Society of Anesthesiologists (ASA), only ASA1 (normal, healthy) patients or ASA2 patients (those with well-controlled disease eg, hypertension) are suitable for sedation outside the operating room. A focused airway examination is a must to rule out any abnormalities that may lead to airway compromise.

The value of an up-to-date medical history questionnaire<sup>2</sup> which gives an indication as to the health status of the patient cannot be over emphasized.

### **Levels of consciousness**

A sedation practitioner must understand and be able to recognize the different levels of sedation or levels of consciousness (LOC)<sup>3</sup>, as drugs depress the central nervous system and change the LOC. The deeper the level of sedation or consciousness the higher the incidence or risk of adverse events. Special attention must be paid when administering ketamine. Some contend that ketamine at the doses used for sedation causes dissociative sedation, a level that falls outside the conscious sedation continuum.

### **The airway**

Every sedation practitioner must know, understand, and have respect for maintenance and protection of the airway. He must know the anatomical and physiological differences between adults and children, the effects of drugs on the airway, and be able to manage the airway. In

CS, the patient is taken from a state of self-preservation to that of dependence on the skills and knowledge of the practitioner.

Regardless of the sedation technique, loss of airway control is always possible. Teams that have recognized, discussed, planned, and prepared for this emergency are more likely to succeed in re-establishing an airway rapidly, effectively, and safely.

### The drugs

A sedation practitioner must understand the pharmacokinetics and pharmacodynamics of sedative and analgesic drugs.

There is no ideal drug, but there are basic questions to consider when selecting a drug:

- What is desired: sedation or analgesia, or a combination of both?
- How rapid is the drug's onset of action? Some drugs take time to reach peak effect.
- How long must the desired effects last?
- What is the side-effect profile: ie, could the drug induce nausea and vomiting?

With intravenous drugs, safe sedation practice means titration to effect. If too little is given, the result could be an anxious patient. If too much is given, hypoventilation and even airway obstruction may result.

### Training

All international guidelines agree that training is essential<sup>2</sup> irrespective of whether the sedation practitioner is:

- An operator sedationist (who gives sedation and performs the procedure), or
- A dedicated sedation practitioner (who only administers and monitors the sedation).



### Documentation

According to international guidelines, all sedation practitioners should keep the following documentation:

- Medical history questionnaire
- Consent to sedation and analgesia for medical/dental procedures
- Pre-procedural checklist
- Pre- and post-sedation instructions
- Clinical monitoring
- Sedation monitoring chart
- Post-sedation monitoring chart
- Discharge scoring system
- Discharge questionnaire

- Critical incident report

Informed consent is a crucial document. The patient needs to know everything regarding the planned procedure and possible complications. Never ask for consent when sedative drugs have already been administered to the patient!

### **Fasting**

Practitioners should follow the 2-4-6 rule.<sup>2</sup> The patient is allowed to take clear fluids up to two hours before the procedure, breast milk four hours before the procedure, and solids six hours before the procedure.

The American College of Emergency Physicians guidelines state the patient need only fast for three hours before sedation as the possibility of aspiration is not of serious concern.

### **Monitoring**

The golden rule is never leave the patient alone. The practitioner's armamentarium includes several electronic monitoring devices:

- Blood pressure
- Pulse oximetry
- ECG
- Capnography
- Depth of anaesthesia or bispectral index (BIS) monitors.

Finally there is the almost forgotten art of clinical monitoring; using one's eyes, ears and fingers.

### **The premises**

No sedation practitioner should proceed with CS before ensuring the premises meet all the guideline requirements for safe sedation.

### **Airway certification**

It is expected of all sedation practitioners to have the necessary up-to-date airway certification as stipulated in international guidelines.

### **Conclusion**

There are no short-cuts in safe sedation practice. Follow the sedation guidelines but remember they are only a guide - not an instruction manual. Never leave the patient alone. Always ensure there is a trained second person present to help monitor the patient and assist with rescue if necessary.

The take home message is: "Proper preparation, proper evaluation, appropriate skills to rescue the patient and proper recovery lead to safe and successful sedation."

## References

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