

How to avoid sedation complications

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Sedation complications can occur before, during, and after, procedural sedation and analgesia, when procedures are performed outside the operating theatre.

The question, then, is how can they be avoided?

It is extremely important to assess the patient, as only American Society of Anesthesiologists (ASA) 1 and 11 patients qualify for sedation outside the operating theatre. High-risk patients need to be identified. In this regard, a medical history questionnaire, and clinical evaluation, or risk assessment, play an important role in patient selection.

Sixteen “red flags” indicate a higher risk of complications. When selecting patients for sedation and proper evaluation, it is important to be familiar with these. They will be discussed. We also see today an increasing number of patients, e.g. the obese, who are classified as ASA II patients, but not according to a risk assessment.

Evaluation of the airway is as crucial as choice of drug, and addressing anatomical problems and syndromes that may compromise it. Unexpected airway management may be required. To ensure patient safety, it is crucial that the airway is safeguarded. The single most important responsibility is to protect it. An unobstructed airway, with intact protective reflexes and respiratory drive, is essential to avoid complications. In some procedures, e.g. dental, the airway may need to be shared with the surgeon.

The next step is to sedate the patient, while ensuring that the airway is preserved. Guidelines to do so will be discussed.

Airway certification is mandatory for sedation service providers. The concept of rescue is critical.

To avoid sedation complications, sedation practitioners need to be familiar with the drugs used, and to select them wisely. Drugs with an appropriate duration of action for the length of the procedure should be selected. Only those

drugs that are well known and understood, and which the sedation practitioner is qualified to use, should be used.

Knowledge of the different levels of procedural sedation and analgesia is essential, as the deeper the level of sedation, the higher the possibility of adverse events. It is important to understand that procedural sedation may refer to either minimal, moderate, or deep sedation.

To prevent sedation complications, the clinical state of “over-sedation” needs to be recognised. Indications include non-responsiveness to verbal command or physical stimuli, involuntary or inappropriate movements, loss of co-operation, a state of confusion, airway obstruction, and a drop in oxygen saturation levels, because of a deeper level of sedation.

During sedation, meticulous monitoring of patients helps considerably towards prevention of sedation complications. The value of clinical monitoring must be emphasised. Electronic monitoring, alone, cannot be relied upon.

Reliable documentation on pre-, intra-, and postoperative sedation remains a cornerstone of safe sedation practice. Informed consent is extremely important.

Recovery criteria must be strictly adhered to.

One of the weakest links in sedation practice concerns discharge criteria. A patient must never be discharged in the absence of a responsible person to take him or her home. Take-home instructions should be given to all patients, whose understanding thereof should be assured.

Training in specific sedation techniques will contribute to safety.