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## Review Article

## Conscious sedation and anesthesiologist — A Review

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## ABSTRACT

Conscious sedation is most commonly practiced in western world in comparison to developing and underdeveloped countries. Due to advancement of technology and availability of safety drugs to anesthetize the patient is helping the patients to undergo certain procedures especially in dentistry. This technique helps mainly for pediatric patients and to patients who are very anxious. One should not forget that if patient selection is not appropriate or if minimum required facilities are not available then he or she may have to face medico-legal problems. This article reviews the concept of conscious sedation and the role of anesthesiologists.

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## 1. Introduction

Conscious sedation is one of the types of anesthesia technique. Although it is not popular due to various reasons in developing and underdeveloped countries, with improvement in technology and safe anesthesia medications it is becoming popular. Pediatric patients and adult patient who are having severe anxiety try to avoid taking treatment which affects the health ultimately leading to life threatening complications. Many a time's anxiety can be managed either by non-pharmacological techniques like behavior therapy or desensitization.<sup>1</sup> Sometimes the patients are exposed to general anesthesia which neither a cost effective technique nor free from complications. This technique also improves the patient and surgeon satisfaction.<sup>2</sup>

## 2. Conscious Sedations Concepts and the Requirements

Consciousness means whenever a patient is capable to respond for command and has protective reflexes intact, including the ability to clear and maintain airway. The main of this technique is to alley the anxiety and increase the pain threshold of the patient. Here in this technique certain drugs or anesthesia agents are used to depress the central nervous system such an extent that one should be in touch with the subject by verbal communications throughout the procedure.

## 2.1. The consent and counseling of the patient or patient relatives and medico-legal implications

It is always important that patient and the immediate relatives must be informed about the type of surgery performed and type of anesthesia is given. All possible advantages and disadvantages should be explained to them.

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A well written informed consent has to be taken from the patient or from the parent if patient is minor.

### 3. Patient Selection

One of the key successes for conscious sedation technique is patient selection. Always have patient with American Society of Anesthesiologist physical status one and two. All patients with physical status 3 and 4 should be referred to higher center. It is also important to reduce the anxiety level of the patient by proper counseling. One must understand the patient should be cooperative for the procedure and should be able to understand it.

### 4. The Set Up and Back Up

Most of the procedures are done in outpatient or day care basis and hence one should be very careful about type of the procedure done. The setup must not be in a rural or peripheral area where accessing the higher center is difficult. The set up should have adequate oxygen cylinder supply, a minimum monitoring system i.e electrocardiogram, pulseoxymetry, and blood pressure measurement should be available. The materials required for emergency airway maintenance and all emergency drugs should be available. A dedicated suction machine should be available for anesthesiologist.

### 5. Procedures Performed

The most common procedures are included are dental related like, extraction, gingival surgeries, minor procedures on tooth.<sup>3</sup> Some dermatologic and cosmetic related procedures, transesophageal echocardiography, upper gastro intestinal endoscopy, radiological interventional surgeries, superficial surgeries are performed.<sup>4-6</sup>

### 6. Check List

Always the anesthesiologist should have a check list and must ensure it is done before proceeding for the proposed procedure. The checklist details are mentioned in Table 1.

### 7. Recordkeeping

It is very important to maintain the record of the patient in detail especially the age, type of the procedure, duration of the procedure and anesthesia drugs used. The recordkeeping helps to overcome medico-legal problems may occur in future and is considered as one of the valid document.

### 8. Anesthesia Drugs Used

Entonox is most commonly used during dental treatment.<sup>7,8</sup> Other short acting drugs like remifentanyl, fentanyl, dexmedetomidine, and certain benzodiazepines are used. It is always better to have combination of nerve block using

**Table 1:** Check list for conscious sedation

S. N	Details
1	Correct identification of the patient
2	Physical examination and basic investigation as per ISA guidelines
3	A responsible relative must be available
4	Check for nil by oral status
5	Any drug allergy or comorbid history should be noted
6	Pre-procedure vitals check
7	Counseling
8	Written and informed consent from the patient or from the close relatives as per the law
9	Explain all possible benefits and complications
10	Machine check
11	Monitor check
12	All necessary emergency equipment should be in working status especially laryngoscope, resuscitation bag, oxygen supply
13	It is ideal to have an intravenous access to administer emergency drugs
14	Check emergency drugs and their expiry dates
15	Intra and post procedure the vital recording should be done
16	Instruction for post-procedure should be given in written
17	The emergency contact details should be written in bold and capitals
18	One more anesthesiologist should be kept ready so that if any call for help is asked that person should reach the place immediately
19	Collaboration should be made and one bed should be kept standby in critical care unit for the safety of patient
20	Antagonist drugs should be easily available

long acting local anesthetics with sedation.<sup>9-11</sup>

### 9. Possible Complications

Aspiration, hypotension, neurogenic shock, vasovagal attack and hypoxemia.

### 10. Conclusion

Conscious sedation is one of the safe methods which have a wide safety margin due to newer available technology. This technique should be used in developing and underdeveloped countries but with a trained anesthesiologist. There is a definitive need of creating awareness among surgeons and anesthesiologists.

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## 12. Conflict of Interest


None.

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