

**Code of Practice Relating to the Administration of
General Anaesthesia and Sedation and on Resuscitation in Dentistry**

**Issued by
The Dental Council
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GENERAL ANAESTHESIA:

Definition;

A controlled state of unconsciousness accompanied by a partial or complete loss of protective reflexes, which may include inability to maintain an airway independently and to respond purposefully to physical stimulation or verbal control.

1. The Council considers that general anaesthesia, a procedure which is never without risk, should be avoided in the practice of dentistry if at all possible. Patients seeking general anaesthesia, where it is not clinically appropriate, should be advised of and encouraged to accept alternative methods of anxiety control.
2. If it is decided to provide dental treatment under general anaesthesia, ideally the anaesthetic should be administered in an appropriate hospital setting but it may be administered in a dental surgery or clinic that have adopted and implemented contemporary monitoring protocols. The Standards of Monitoring during Anaesthesia and Recovery issued by the Association of Anaesthetists of Great Britain and Ireland are appropriate.
3. General anaesthesia must be regarded as a postgraduate subject and general anaesthetics must only be administered by dental/medical personnel with recognised specialist training and relevant experience in the discipline. The anaesthetist must remain with the patient throughout the procedure and until the patient's protective reflexes have returned and the patient has recovered control of his/her own airway.
4. When administering a general anaesthetic the anaesthetist should be supported by another person sufficiently trained and experienced in the skills necessary to assist in the monitoring of the patient's condition and be competent to provide effective assistance in case of an emergency.
5. Under no circumstances must a general anaesthetic be administered by a dentist who is treating the patient.
6. The acceptance of patients for a general anaesthetic should be subject to a thorough medical assessment, a detailed medical and dental history and a full dental examination.
7. Prior to the administration of a general anaesthetic the procedure, including potential risks, should be fully explained to the patient and/or parent/guardian and written consent obtained.

8. Good contemporaneous records of all treatments and procedures must be kept and should contain all details of treatments, drugs used and procedures undertaken including any complications or difficulties encountered.
9. Patients and/or parents/guardians must be provided with comprehensive pre and post treatment instructions and advice in writing.
10. Any dentist who carries out treatment under general anaesthesia without fulfilling the above conditions will almost certainly face a charge of professional misconduct.

SEDATION:

Definition;

Simple dental sedation is a carefully controlled technique in which a single intravenous drug or a combination of oxygen and nitrous oxide is used to reinforce hypnotic suggestion and reassurance in a way, which allows dental treatment to be performed with minimal psychological stress. Verbal communication with the patient should be maintained at all times throughout the procedure and it is essential that the protective pharyngeal and laryngeal reflexes remain intact at all times, and that the patient breathes spontaneously without respiratory obstruction. The technique must carry a margin of safety wide enough to render unintended loss of consciousness unlikely.

Any technique of sedation other than as defined above requires the implementation of all the previously stated requirements for the administration of general anaesthesia.

Intravenous Sedation:

1. The definition of dental sedation requires intravenous sedation to be limited to the use of one sedative drug with a single titrated dose and an end point remote from anaesthesia. The use of more than one sedative drug must not be considered simple sedation and would require the same precautions as for the administration of a general anaesthetic. Appropriate local anaesthesia should routinely be used with sedation.
2. Where intravenous sedation is employed a dentist may assume the responsibility of sedating the patient as well as operating, provided that the dentist has successfully completed a Dental Council recognised postgraduate training programme in the administration of intravenous sedation. A second appropriate person should be in attendance. Such person might be a suitably trained dental nurse whose experience and training enables her to be an efficient member of the dental team capable of monitoring the clinical condition of the patient and, should the occasion arise, be competent in providing effective assistance in case of emergency.

3. Dentists who administer intravenous sedation should attend refresher training at regular intervals.
4. Intravenous sedation must not be used unless proper equipment and adequate facilities, including appropriate drugs, for the resuscitation of the patient are readily available with both dentist and staff trained in resuscitation techniques. Resuscitation is very much a matter of skill and timing and dentists must ensure that all those assisting them know precisely what is required of them, should an emergency arise. They should regularly practise their resuscitation routine in a simulated emergency against a clock. The Council considers it essential that the equipment necessary for basic life support must already be set up and be immediately to hand, ready for use.
5. A pulse oximeter is essential for monitoring the sedated patient and dentists must be aware of the significance of pulse oximetry readings.
6. An indwelling cannula should always be used and should not be removed until the patient is fully recovered.
7. Practitioners should have available immediately an emergency kit of drugs and equipment, including oxygen, to deal with any emergency that might arise.
8. The benzodiazepine antagonist drug, flumazenil, should be solely reserved for emergency use.
9. The dentist should be familiar with drug manufacturers' data sheets and should adhere to the recommendations contained therein. Dentists should be aware that dreams/vivid hallucinations, including sexual fantasies, hysterical reaction or becoming sexually aroused have been frequently reported and associated with the benzodiazepine group of drugs. Before undertaking sedation, practitioners must ensure that a dental nurse or other appropriate person acts as a chaperon for the patient and is present from the time of administration of the sedation until the patient leaves the practice. This person's name should be recorded in the patient's notes.
10. Where sedation is to be administered, a detailed medical and dental history of the patient must be taken and a full dental examination carried out. Only patients falling into the fitness groups of ASA I or II should be accepted for sedation in general practice. If there is any doubt as to the patient's fitness, sedation should be avoided.
11. Intravenous sedation is not recommended for children, particularly under the age of 10 years.
12. Prior to the administration of intravenous sedation the procedure including potential risks should be fully explained to the patient and/or parent/guardian and written consent to the sedation, local anaesthesia and proposed treatment obtained.

13. Good contemporaneous records of all treatments and procedures must be kept and should contain details of treatments, drug used and patient's vital signs, including any complications or difficulties encountered.
14. Clear and comprehensive pre and post treatment instructions and advice in writing should be provided in advance to patients and/or their parents/guardians or accompanying persons.
15. Following treatment, recovery facilities must be available with appropriate monitoring and continuous individual observation undertaken on a one-to-one basis until the patient is sufficiently recovered to leave the premises, accompanied by a responsible person.
16. Any dentist who carries out treatment under intravenous sedation without fulfilling the above conditions will almost certainly face a charge of professional misconduct.

Inhalation Sedation:

1. Where inhalation sedation techniques are used, a suitably experienced practitioner may assume the responsibility of sedating the patient as well as operating provided the practitioner has successfully completed a Dental Council recognised postgraduate training programme in the administration of inhalation sedation.
2. It is important that the practitioner realises that the planes of sedation and anaesthesia overlap considerably and that there is a gradual transition between one plane and the next with no clear demarcation between the planes. It is important to recognise that in a small number of patients as little as 50% nitrous oxide may bring about loss of consciousness and considerable care must be exercised if the concentration of nitrous oxide rises above 35%. Accordingly, to ensure an end point remote from anaesthesia, practitioners should not exceed a fixed upper limit of 50% nitrous oxide.
3. A pulse oximeter is essential for monitoring the patient.
4. Scavenging equipment should be used to reduce the effects of nitrous oxide contamination of the surgery environment.
5. Practitioners should have available immediately an emergency kit of drugs and equipment, including oxygen, to deal with any emergency that might arise.
6. It is essential that the clinician monitors both the patient and the equipment and as a minimum requirement a second person must be present throughout. Such a person might be a suitably trained dental nurse whose experience and training enables her to be an efficient member of the dental team and who is also capable of assisting in the monitoring the clinical condition of the patient. Should the occasion arise she should be competent in providing efficient assistance in case of an emergency.

7. Prior to the administration of inhalation sedation the procedure, including potential risks, should be fully explained to the patient and/or parent/guardian and written consent to the sedation, local anaesthesia and proposed treatment obtained.
8. Clear and comprehensive pre and post treatment instructions and advice in writing should be provided in advance to patients and/or their parents/guardians or accompanying persons.

Oral Sedation:

1. When oral sedation is administered an appropriate drug which undergoes rapid absorption and has a relatively short duration of action should be chosen.
2. The relevant drug should be administered under supervision in the dental surgery and adequate time, in accordance with the manufacturer's recommendations, allowed for maximum absorption before treatment is started.
3. The prescription for oral sedation should only be used with a full understanding of the pharmacology, indications, contraindications and drug interactions of the compounds used.
4. A pulse oximeter is essential for monitoring the patient.
5. It is essential that the dentist monitors the patient and a second person who is capable of assisting in this monitoring should be present. Clinical assessment of respiratory rate, depth and colour allows for airway management. Pre and post-operative records of vital signs should be maintained.
6. Patients who have had oral sedation administered must be escorted home and be asked to follow the same post treatment instructions as for intravenous sedation. Specifically, patients must agree in advance to avoid operating machinery, driving, or drinking alcohol.

Resuscitation:

1. It is likely at some point in his /her professional life that a dentist will have to deal with an in-practice emergency such as collapse. Dentist should, therefore ensure that all members of their staff are properly trained and prepared to deal with an emergency should one arise.
2. Every member of the dental team should be trained in resuscitation. Training should be a team activity and should be regularly practised in surgery under simulated conditions with refresher training courses at appropriate intervals.

3. All dental staff should be fully conversant with and be proficient in basic life support skills.
4. Whereas life support does not require equipment or drugs, it is appropriate that a device such as a resuscitation mask should be available. The current ILCOR Guidelines should be followed.

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