Sedation: management of risk

Dental sedation is a safe and effective method of anxiety control for patients undergoing dental treatment but you need to have the proper procedures in place, says Dental Protection.

Sedation can be provided by using drugs in several ways such as oral, inhalation or intravenous delivery, although each has its own merits and risks. Sedation is considered to lie within the skill of a general practitioner who has received appropriate postgraduate training.

Nervous patients

Some patients find it difficult and distressing to accept even the most routine of dental procedures when fully conscious and aware. Other patients, who will normally have no difficulty in accepting routine procedures, might feel the need for sedation when undertaking more complex or lengthy procedures. Certain surgical procedures, complex prosthodontics or endodontics might fall into this category.

Sedation has been linked in the past to dental anaesthesia. However, the move in most countries is away from the provision of general anaesthesia for most primary dental care procedures and, where it is deemed appropriate to provide it, to do so in specialist centres staffed by experienced medically qualified specialist anaesthetists with appropriate postgraduate training, and supported by experienced nursing and recovery teams who have received specific training in the field of dental sedation.

Many drugs used in sedation have the potential to induce anaesthesia. It is therefore important that dentists practising sedation should ensure that the drugs and techniques used carry a margin of safety sufficient to render the loss of consciousness highly unlikely. There are very strict requirements relating to the provision of general anaesthesia in many countries and dentists have had difficulties in the past when a patient undergoing sedation has lapsed into inadvertent anaesthesia. In general, a dentist should be able to maintain verbal contact with a sedated patient at all times.

One precaution which has been adopted in many countries, is the stipulation that only a single sedative drug should be used,

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thereby avoiding the possibility of a potentiation (exaggerated) effect that could occur when more than one drug is used. With this in mind, the need for an up to date written medical history, with all current medications recorded, is essential in order to avoid any interaction with, or potentiation of the patient's normal medication.

In most jurisdictions, dentists who provide sedation are required to undertake postgraduate training and to maintain a contemporary level of knowledge. Regular refresher courses in cardio-pulmonary resuscitation techniques should involve all members of the dental team, and training of the whole dental team under simulated conditions, in preparation for a possible real emergency, is an excellent risk management strategy. A log should ideally be kept of all such training for each member of the team.

**Consent**

Practitioners should take adequate steps to ensure appropriate consent for the sedation procedure itself, in addition to the treatment to be provided. Problems have arisen where patients have had additional treatment carried out under sedation without their prior knowledge and agreement.

The more accurate the diagnosis and the fuller the discussions prior to treatment, the less potential there is for additional treatment to become immediately necessary while the patient is still sedated; consequently, the less likely the patient will be to complain about a lack of consent.

In some parts of the world, the decision to provide additional treatment in such situations may not be accepted as appropriate, even if taken with the best interests of the patient in mind.

Patients have the right of autonomy, which they do not forego simply because they happen to be sedated when their treatment is carried out. Such a situation is more easily accepted in an emergency or where a patient would quite clearly be worse off, if left in pain for example. It is not always possible to establish the precise treatment plan in advance of the patient being sedated. Because of this, a full discussion should take place with the patient, indicating that this might be the case and the patient’s views should be sought in advance – particularly in respect of any treatment options that they specifically wish to avoid.

The obvious difficulty in obtaining a valid consent from a sedated patient, makes it a sensible precaution (and a formal requirement in some countries) that the patient’s consent to both the sedation itself, and to the specific treatment to be carried out under sedation, is confirmed in writing in advance of the procedure.

**Side effects**

Clinicians sometimes overlook the mood modification that occurs when sedative drugs are used in dentistry. The pharmacological effect leaves the patient with a state of mind that is not entirely normal. Although the patient can still respond to their environment, and to the commands of others following the administration of conscious sedation, the higher level neurological functions are markedly altered.

Most sedative drugs cause a loss of inhibition and some are hallucinogenic. That is the nature of their action. The scientific literature contains no authoritative evidence, including randomised control trials, to establish the frequency of sexual fantasies. Such evidence that does exist suggests that about one in two hundred patients may experience erotic dreams. The benzodiazepines are the drugs most commonly implicated in this phenomenon, but they are by no means the only ones.

The dento-legal risk that results from the above is self-evident; allegations of sexual impropriety can have devastating consequences for a healthcare professional, and the media interest is always very high. There have been many such cases around the world which have been associated with dental treatment provided under sedation.

Whilst sexual hallucination can be disturbing, it is not a common side effect. A balanced judgement has to be made for
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For example, once the sedative has been administered it is inappropriate for the chaperoning dental nurse to leave the surgeon or move out of sight of the patient and dentist within the surgery. This applies even for the briefest period of time and for any reason that might cause the nurse to be temporarily out of view (retrieving instruments or materials and any other duties away from the chair). Systems need to be developed such that if the situation should arise that extra equipment and materials are required from a site beyond the immediate surgery, then a third person should be summoned to obtain these.

Drugs must be used with care and consideration. There is evidence to suggest that higher doses of sedative drugs tend to increase the incidence of sexual hallucination. Frequent use of high dose sedative regimes is likely to increase the risk of alleged sexual assault.

Recovery

Once the operative procedure has been completed, the patient will on most occasions still display a residual level of sedation and will need time for further recovery before discharge or transfer to nursing care. Again the patient must be fully chaperoned throughout this stage.

The dental nurse/assistant must not leave the dentist alone with the patient at any time. When moving the patient to dedicated recovery facilities, the patient should be transferred either by trolley or should be able to walk themselves with the minimum of supervision. It is inappropriate for the patient to require support from both the dentist and the dental nurse in the transfer process. Not only is the patient inadequately recovered to be transferred by this method, but this method of transfer produces an unacceptable level of close body contact, which has the potential to be misinterpreted.

Once in the recovery area, the patient should be monitored and accompanied by a responsible adult at all times. The patient should not be left alone with the dentist just ‘popping in’ to monitor the patient. The recovery period is one of the most frequently cited times of an alleged sexual assault, and a patient should be continuously and closely monitored by an appropriately trained person, taking account of any chaperonage issues.

Supervision

A patient who has been sedated, even after allowing sufficient time in a supervised recovery environment under the care of suitably trained and experienced personnel, should be accompanied from the practice by a responsible adult.
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Giving patients advice sheets on sedation should help allay any concerns the patients may have.

It is certainly unwise to proceed with any treatment under sedation, unless and until the relevant accompanying person is physically on the practice premises and intending to remain so. Situations have arisen in the past when such accompanying adults have never materialised at all, leaving the practice team in the invidious position of having to arrange for the same transit of the patient to their home, as well as for their subsequent supervision.

The record
The clinical records should include an up to date medical history, any referral correspondence, details of the consent procedure itself is not only an essential component of good patient care, but it can prove invaluable in defending any allegation of improper conduct. Along with patient identification details, there should be a note of the patient’s weight and their risk grouping - as defined by the American Society of Anesthesiologists, for example. The identity of every member of the operating team should be clearly stated in the notes, as should any drugs that were used (together with a record of their batch numbers).

It is important not only to record how much drug has been given but also when it was given and how quickly. This information can be used to justify the dose of drug used in a particular patient. Whilst sedative drugs are given in dosages loosely based on body weight, conscious sedation drugs used in dentistry are often titrated to the patient’s individual needs. The clinical notes should also contain an indication of the quality of sedation, the level of sedation and patient’s response to the procedure. Any subjective signs such as restlessness or a distinct change in the patient’s demeanour should also be noted, particularly where the loss of inhibition is marked.

The records should include the name of the person into whose care the patient is entrusted on leaving the dental surgery premises.

Supporting staff
In the past, it was not unusual for a single dentist to act as both operator and sedationist/anaesthetist. It is now widely accepted that such a practice does not allow an appropriate degree of focus and attention, to allow each of the two roles to be carried out to a necessary high standard of care. In some countries, and particularly where it is commonplace for health commissions to operate in rural or remote settings, inhalation sedation techniques such as relative analgesia (nitrous oxide/oxygen) are still considered appropriate for use by a single operator.

In all cases, however, sedation procedures become safer and more predictable when the dentist is assisted by nursing staff who have received specific training in dental sedation and in recovery procedures.

Amnesia
Many of the drugs used for dental sedation have the potential to create an amnestic effect. Although this is often a significant advantage, it can also create a threefold problem. The patient may not remember discussions or explanations given to them during the treatment. The patient may recall some events or conversations that occurred during the treatment, but not others. The fact that they can sometimes recall certain events very clearly, can leave the patient to believe that other events did not take place at all – even when they clearly did.

The patient may not remember any postoperative instructions given to them at the time of treatment. For this reason, it is important to provide both preoperative and postoperative instructions in written form. Where appropriate, these instructions should be reinforced verbally with the accompanying person whose role it is to supervise the patient on their return home from the surgery.

Contact information
Dental Protection are the world’s largest specialist provider of dental professional indemnity and risk management for the whole dental team. The articles in this series are based upon Dental Protection’s 100 years of experience, currently handling more than 8,000 cases for over 48,000 members in 70 Countries.

55 Cavendish Square
London W1G 0PS
UK.

E-mail:
egeneral.enquiries@mpa.org.uk

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