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 lapse 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,
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 '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'
each patient as to whether or not this possibility has the po-
ssible to be significant, and if so, whether it is prudent to treat
the patient under sedation, or indeed at all.

It is particularly useful to provide the patient with an in-
formation sheet. Not only should this explain what to do and what
not to do before and after con-
sscious sedation, but it should also explain the nature of the
procedure and the processes involved, as well as the benefits
and risks. A further section of the text can explore frequently
asked questions.

This is also a good opportu-
nity to explain that the effects of
conscious sedation are similar to
the effects of alcohol. Following
from this it is useful and entirely
appropriate to explain to the pa-
tient that they may dream, that
some dreams can be vivid and
intense, and that very occasion-
ally, the dreams can be of a sex-
ual nature.

Chaperonage
The presence of an appropri-
ate third party goes a long
way to protect the practitioner
from allegations of indecent
assault. Whenever this sort of
procedure is being carried out
there should be a strict rule that
no practitioner is ever left alone
with the patient:

• Not even for a short time
• Not during administration of
  the sedative drug
• Not during the patient dis-
  charge following recovery
• Not at any time in between

There should be no deviation
from this rule and only careful
staff training can ensure that this
is the case on every occasion.

For example, once the seda-
tive has been administered it is
inappropriate for the chaper-
oning dental nurse to leave the
surgeon’s chair before, during or
after recovery. The presence of
suitably trained and experienced
personnel, should be accompa-
nied by a responsible adult at all
times. The patient should never be
left alone with the dentist just ‘pop-
ing in’ to monitor the patient.

Drug interactions, and the
presence of an appropriate
informed adult, can significantly
reduce the risk of any chaper-
onage issues.

Recovery
Once the operative procedure
has been completed, the patient
will on most occasions still dis-
play a residual level of sedation
and will need time for further
recovery before discharge or
transfer to nursing care. Again
the patient should be fully chap-
eroned throughout this stage.

The dental nurse/assistant must
not leave the dentist alone with
the patient at any time. When
moving the patient to recovery facili-
ties, the patient should be safely
transferred by either 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 proc-
cess. Not only is the patient inade-
quately recovered to be trans-
ferred 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 moni-
tored and accompanied by a re-
sponsible adult at all times. The
patient should not be left alone
with the dentist just ‘pop-
ing in’ to monitor the patient.
The recovery period is one of the
most frequently cited times of an
alleged sexual assault, and a pa-
tient should be continuously and
closely monitored by an appro-
priately trained person, taking ac-
tcount 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 accompa-
nied by a responsible adult.
Under no circumstances should such patients be allowed to drive a motor vehicle, or operate any machinery or appliances unsupervised for an extended period (of several hours at least) after the administration of the sedation.

The clinical records should include an up-to-date medical history, details of the consent process, and all relevant accompanying persons and instructions. Supporting staff should be verbally with the accompanying adult to reinforce any preoperative and postoperative instructions in written form.

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 common practice 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 amnesiac 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 is the world’s largest specialist provider of dental professional indemnity and risk management for the entire dental team. The articles in this series are based upon Dental Protection’s 100 years of experience, currently handling more than 9,000 cases for over 40,000 members in 70 countries.

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