

DRAFT

Sedation practice standard

Foreword

Standards framework

The Dental Council (the “Council”) is legally required to set standards of clinical competence, cultural competence and ethical conduct to be observed by all registered oral health practitioners (“practitioners”)^a. This means that compliance to the Council’s standards by practitioners is mandatory.

The Council has established a standards framework which defines the ethical principles, professional standards and practice standards that all practitioners must meet.

There are five ethical principles that practitioners must adhere to at all times.

Practitioners must:

- put patients’ interests first
- ensure safe practice
- communicate effectively
- provide good care
- maintain public trust and confidence.

Each of the five ethical principles is supported by a number of professional standards which articulate what a practitioner must do to ensure they achieve the ethical principles. The professional standards are, in turn, supported by practice standards which relate to specific areas of practice that require more detailed standards to enable practitioners to meet the professional standards and ethical principles.

A copy of the standards framework is available on the [Dental Council’s website](#).

Compliance

The standards set by the Council are minimum standards which are used by the Council, the public of New Zealand, competence review committees, professional conduct committees, the Health and Disability Commissioner, the Health Practitioners Disciplinary Tribunal and the courts, to measure the competence, performance and conduct of practitioners.

A failure to meet the Council’s standards and adhere to the ethical principles could result in Dental Council involvement and may impact on the practitioner’s practice.

Sometimes factors outside of a practitioner’s control may affect whether or not, or how, they can meet the standards. In such circumstances, practitioners are expected to adhere to the ethical principles, demonstrate insight and use their professional judgement to determine appropriate behaviour.

Practitioners must be able to justify their behaviour when this is contrary to the standards, and document their reasons.

^a Oral health practitioners include dentists, dental specialists, dental hygienists, dental therapists, clinical dental technicians, dental technicians, and orthodontic auxiliaries.

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Introduction

This introduction provides commentary on the Sedation practice standard and context for the standards within it, and does not form part of the practice standard.

The Sedation practice standard contains:

- The Dental Council *standards* (the ‘standards’) for sedation that all registered oral health practitioners (‘practitioners’) who practise as part of the clinical team for sedation **must** meet. These are presented in the numbered coloured boxes -



The standards that practitioners must meet.

and

- *Guidance* which describes the actions and behaviour that enable practitioners to meet the minimum standards. If a practitioner does not follow the guidance, they must be able to demonstrate to the Dental Council (the “Council”) that they meet the standards.
- This is presented in the grey-shaded boxes directly following the relevant standard -

Guidance

- The actions and behaviour that enable practitioners to meet the minimum standards.

The practice standard is presented in four parts:

I: Preparation for sedation

II: Providing sedation

III: Education and training

IV: Documentation.

Duty of patient care

The Health and Disability Commissioner Code of Rights provides that every consumer has the right to have services provided with reasonable care and skill¹ that comply with legal, professional, ethical, and other relevant standards².

In accordance with the ethical principles of the standards framework, practitioners have a responsibility to put their patients’ interests first, and to protect those interests by practising safely and providing good care.

Sedation is offered to dental patients with the aim of reducing anxiety and/or improving tolerance of dental treatment. Safe practice is of heightened importance in this practice area as the risks associated with sedation are significant.

¹ Right 4(1) Health and Disability Commissioner Code of Health and Disability Services Consumers’ Rights Regulations 1996

² Right 4(2) Health and Disability Commissioner Code of Health and Disability Services Consumers’ Rights Regulations 1996

Practitioners who practise as part of the clinical team for sedation must ensure they are appropriately educated and skilled in this practice area, and that patient safety is their primary consideration.

Purpose

The purpose of the Sedation practice standard is to set minimum standards for the practice of **minimal and moderate sedation**³ in dentistry.

It applies when a practitioner administers a drug or drugs to relieve patient anxiety and/or to provide sedation, and when a practitioner recommends or prescribes a sedative drug that the patient self-administers.

It also applies when a practitioner proceeds with treatment knowing at the time of appointment, that the patient has self-administered a sedative drug or drugs that the practitioner has not prescribed or recommended.

It does not regulate techniques that are intended to induce deep sedation or loss of consciousness (general anaesthesia), where a specialist anaesthetist is required to administer the sedation or general anaesthesia and continuously monitor the patient until recovery.

Duty of compliance

Practitioners who practise as part of the clinical team for sedation have a legal responsibility to meet the standards contained in this practice standard.

They must ensure that:

- their own clinical practices for sedation meet the standards; and
- the practice⁴ environment is suitable for sedation and meets the standards.

There are various actions the Council can take in the event of a practitioner's non-compliance with the standards. The action taken would depend on the individual circumstances of non-compliance.

Sometimes factors outside of a practitioner's control may affect whether or not, or how, they can meet the standards. In such circumstances, practitioners are expected to adhere to the ethical principles of the standards framework, demonstrate insight and use their professional judgement to determine appropriate behaviour.

Practitioners must be able to justify their behaviour when this is contrary to the standards, and document their reasons.

The Council's *Medical emergencies in dental practice - practice standard* must be read in conjunction with the Sedation practice standard.

³ The terms **minimal sedation** and **moderate sedation** are defined on page 6 below

⁴ The "practice" is defined as all settings in which registered oral health practitioners perform activities associated with their scope of practice

Definitions⁵

- **Minimal sedation** is a drug-induced state during which the patient responds normally to verbal commands. Cognitive function and physical co-ordination may be impaired but airway reflexes, cardiovascular and ventilatory functions are unaffected.
- **Moderate sedation** is a drug-induced depression of consciousness during which patients respond purposefully⁶ to verbal commands, either alone or accompanied by light tactile stimulation, throughout the period of sedation. The patient has the ability to maintain their airway patency on request, spontaneous ventilation is adequate and cardiovascular function is usually maintained.
- **Deep sedation** is a drug-induced depression of consciousness during which patients cannot easily be woken but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.
- **General anaesthesia** is a drug-induced loss of consciousness during which patients are not able to be woken, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.
- **Sedation-related complications** are complications resulting from sedation and include, but are not limited to:
 - Depression of consciousness beyond the intended level of sedation
 - Airway impairment
 - Hypoventilation
 - Hypoxia
 - Hypotension.

Principles of safe sedation

The transition from complete consciousness through the various levels of sedation to general anaesthesia is a continuum, and not a set of discrete, well-defined stages. It is accompanied by increasing depression of the central nervous system and other physiological systems, which if not effectively monitored and managed may progress to poor outcomes.

The response of an individual patient to sedatives is not always predictable and, at times, it can be difficult to define the end-point of the target state.

Therefore, for safe and effective sedation practice it is absolutely essential:

- That practitioners complete formal education and training⁷ to gain the necessary knowledge and skills to safely and competently provide sedation; and maintain competence.
- That practitioners use only those techniques and drugs for sedation in which they are formally educated and trained.

⁵ Adapted from the American Society of Anesthesiologists *Continuum of Depth of Sedation: Definition of general anesthesia and levels of sedation/analgesia*; with the exception of sedation-related complications

⁶ Reflex withdrawal from a painful stimulus is NOT considered a purposeful response

⁷ Refer to Part III of the practice standard

- That the drugs used for minimal and moderate sedation have a margin of safety that is wide enough to make deep sedation or general anaesthesia unlikely.
- That practitioners providing sedation are able to identify sedation–related complications and appropriately manage the patient.

Sedation techniques and drugs

Sedation may be achieved by a wide variety of drugs and techniques, and may accompany techniques for pain management such as local anaesthetic. In dental practice the most common sedation techniques are inhalation using nitrous oxide/oxygen, oral, and intravenous (IV).

A particular technique may be used with one or more drugs to achieve a range of sedative effects within the continuum. No one technique, drug, or combination of drugs, is suitable for all patients; and individual patients may need different sedation techniques and drugs at different times.

Each technique, and an understanding of the pharmacokinetics and pharmacodynamics of the drug(s) used with it, requires formal education and training for safe practice.

The ease of administration of a sedative does not necessarily reflect the degree of safety associated with it.

Techniques that do not allow the drug to be titrated to effect, for example, the oral administration of sedative drugs, can result in a less predictable response than when a drug is administered intravenously or via inhalation.

For this reason, oral sedation should only be used for an intended level of minimal sedation.

Acknowledgements

The Sedation practice standard is founded on a number of different sources, including the New Zealand Dental Association's Code of Practice⁸, the Australian Dental Association's recommended guidelines⁹, the Australian and New Zealand College of Anaesthetists guidelines¹⁰, and other international guidelines and standards. It has been developed with advice from consultants that included oral health practitioners practising sedation at minimal and moderate levels, and an anaesthetist; and on the advice of staff members from the Faculty of Dentistry, University of Otago and the participants at the Council's education discussion forum.

⁸ NZDA Code of Practice Sedation for dental procedures 2015

⁹ ADA Policy Statement 6.17 Sedation in dentistry 2014

¹⁰ ANZCA Guidelines on sedation and/or analgesia for diagnostic and interventional medical, dental or surgical procedures 2014

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Sedation practice standard

Part I: Preparation for sedation

Patient assessment

1

You must determine whether you can provide safe sedation for patients that is the most suitable for them, and refer appropriately if you cannot.

Guidance

- Perform a thorough patient assessment at a separate appointment before the planned sedation appointment, when possible, and record your findings.
- Include in the assessment:
 - A complete medical history that records past medical history, history of previous sedation, current medical conditions, current medications (prescribed and non-prescribed) and allergies
 - A physical examination that includes evaluation of the airway to determine if there is an increased risk of airway obstruction, assessment of whether venous access is achievable, measurement of blood pressure, and other investigations as necessary.
- Refer to the American Society of Anesthesiologists' (ASA) Physical Status Classification System (Appendix A), and record the ASA status of the patient.
- Normally only ASA I or ASA II patients are considered suitable for sedation as outpatients, depending on the education, training and experience of the practitioner providing the sedation and the appropriateness of the clinical environment.
- Consult with the patient's general medical or specialist practitioner before any planned sedation if the patient has a serious medical condition, is medically unstable, and/or results from the physical examination are of concern.
- If the patient is seriously medically compromised and/or the results of the physical examination indicate an anaesthetist is required, an anaesthetist must administer the sedation and monitor the patient; referral may be necessary.
- Consider the age of the patient when determining the safety and suitability of the care you can provide. Children present increased challenges from an airway and venous access point of view, and extremes of age may affect the sensitivity of the patient to the sedative(s).
- When your abilities and experience in sedation are not appropriate for the age of the patient, referral is the safest and most suitable option for care.
- Explore all relevant anxiety and pain management techniques with the patient, to ensure all possible options are considered and the most suitable is identified to enable treatment to be carried out for them. Behavioural management, local analgesia or general anaesthesia may be suitable alternative options to sedation.
- Update the medical history at the sedation appointment.

Informed consent

2

You must provide patients with the information they need or request, in a way they can understand, to enable their informed consent for sedation and the planned dental treatment, before being sedated.

Guidance

- Fully explain the risks and benefits of the method of sedation proposed as the most suitable in the patient's circumstance, distinguishing between average risk and individual risk.
- Fully explain the planned dental treatment.
- Before sedation, inform the patient of any possible changes to the planned dental treatment during the period of sedation, and gain informed consent for these potential changes. Patients who are already sedated cannot be considered able to make valid decisions and give informed consent.
- Confirm the patient's understanding of the information given, and provide them with an opportunity for discussion.
- Obtain the patient's informed consent for sedation and the planned dental treatment, in writing.

Pre-operative instructions

3

You must provide patients with comprehensive and understandable pre-operative instructions, both verbal and written, before the sedation appointment.

Guidance

- Include information on the following in the verbal and written pre-operative instructions, appropriate for the sedation technique and drug(s) used, and relevant for the patient's needs:
 - Pre-sedation fasting protocol
 - Recovery:
 - What the patient might expect during recovery from the sedation
 - The need or not for the patient to arrange an escort¹¹- a responsible adult to accompany the patient home and care for the patient for the time specified by the practitioner who administered the sedation
 - Advice on the need to avoid activities that might place the patient at risk of injury or disadvantage
 - After-hours contact details for emergency advice and services

¹¹ An escort is not normally required for adult patients who have received nitrous oxide sedation.

- Care advice e.g. pain-relief medication.
- Allow the patient time to read the pre-operative instructions, preferably at the assessment appointment, confirm their understanding of the information, and provide them with the opportunity to ask any questions.
- Confirm the patient's compliance with the pre-operative instructions, and that a suitable escort and transportation have been arranged, before starting sedation.

Part II: Providing sedation

Sedation techniques and drugs

4 You must use only sedation techniques in which you have been formally trained and are competent.

5 You must administer only drugs for which you have gained an understanding of their pharmacokinetics and pharmacodynamics through formal education.

Note: Formal education and training is defined in Part III of this practice standard.

6 You must use drugs in a manner that is unlikely to cause loss of consciousness, and/or impair ventilatory or cardiovascular function.

Guidance

- Know the physiological effects of the drugs you use, and be aware of potential adverse effects and drug interactions with prescribed and non-prescribed medications, which may influence the impact of the sedative drug(s).
- Know the time of onset, time to peak effect, and duration of action for each drug you use; related to the administration technique used.
- Preferably use techniques that allow drugs to be titrated to effect, to minimise the risk of sedating the patient to a deeper level than intended.
- Be aware of the potential synergistic effects of sedative drugs when used in combination, and do not use more than one sedative drug when sedating a patient unless you are trained and competent in using that particular combination of drugs.
- Understand the relevance of a drug's therapeutic index on the margin of safety that exists for its use.

7

You must ensure that the treatment and recovery areas are appropriately sized, configured and equipped for the sedation technique being used, to facilitate safe sedation and recovery - including management of sedation-related complications.

Guidance

Treatment and recovery areas

- Have treatment and recovery areas that are large enough to accommodate the clinical team and equipment required for providing sedation, monitoring and emergency management.
- Have the following in the treatment and recovery areas when providing sedation by any technique:
 - An operating table, trolley or chair which can be readily tilted into a horizontal or head-down position
 - Adequate floor space for ease of movement
 - Adequate suction and room lighting, and an alternative means of supplying both in the event of a power failure
 - An oxygen supply and associated equipment suitable for delivering high flow oxygen
 - Emergency drugs and equipment as specified in the Council's *Medical emergencies in dental practice – practice standard*.
- Have the following equipment in the treatment and recovery areas, except when using only nitrous oxide/oxygen for sedation:
 - A pulse oximeter
 - An automated device for measuring blood pressure.
- The patient's recovery can occur either in the treatment area or in a dedicated recovery area.
- Maintain adequate access throughout the facility to allow the patient to be moved easily and safely from the treatment area to the recovery area, if these are in different locations; and adequate access for emergency services.

Equipment and services for nitrous oxide/oxygen sedation¹²

- Use equipment for nitrous oxide/oxygen sedation that meets the following specifications:
 - A minimum oxygen flow of 2.5 litres/minute with a maximum flow of 10 litres/minute of nitrous oxide, or in machines so calibrated, a minimum of 30% oxygen
 - Capacity for administration of 100% oxygen
 - An anti-hypoxic device which cuts off nitrous oxide flow in the event of an oxygen supply failure, and opens the system to allow the patient to breathe room air
 - A non-return valve to prevent re-breathing, and a reservoir bag
 - A patient breathing circuit of lightweight construction and low resistance to normal gas flows
 - A low gas-flow alarm
 - An appropriate method for scavenging of expired gases.
- Have a reserve supply of oxygen readily available, with associated equipment for its use.
- Service nitrous oxide/oxygen equipment according to manufacturer's recommendations, at least annually.
- Install, maintain and service any piped gas system according to appropriate standards, at least annually.
- Check the equipment and the associated system for gas delivery is working properly before administering sedation.
- Consider risks of chronic exposure to nitrous oxide.

¹² Adapted from ADA Policy statement 'Sedation in Dentistry' and ANZCA guidelines on sedation and/or analgesia for diagnostic and interventional medical, dental or surgical procedures.

Clinical team for sedation

8

You must meet the specified requirements for sedation team members, as applicable to the intended level of sedation, defined in the tables below.

For an intended level of minimal sedation:

A minimum of two team members must always be present in the treatment area throughout the sedation period in which dental treatment is performed. The following scenarios are acceptable:

	Team Member 1	Team Member 2
Scenario 1	<p>The 'operator-sedationist':</p> <ul style="list-style-type: none"> – administers the sedation and performs the dental treatment – must be a dentist or dental specialist who is appropriately educated and trained, in sedation¹³ 	<p>The '1st assistant':</p> <ul style="list-style-type: none"> – monitors the patient throughout the dental treatment, and may assist in the dental treatment – must, at minimum, have received education and training in monitoring of sedated patients¹³ – may be a non-registered team member, for example, a chairside assistant
Scenario 2	<p>The 'sedationist':</p> <ul style="list-style-type: none"> – administers the sedation and monitors the patient throughout the dental treatment – must be a dental or medical practitioner who is appropriately educated and trained, in sedation¹³ 	<p>The 'operator':</p> <ul style="list-style-type: none"> – the oral health practitioner who performs the dental treatment

¹³ Refer to Part III of the practice standard

For an intended level of moderate sedation:

A minimum of three team members must always be present in the treatment area throughout the sedation period in which the dental treatment is performed. The following scenarios are acceptable:

	Team member 1	Team member 2	Team member 3
Scenario 1	<p>The 'operator-sedationist':</p> <ul style="list-style-type: none"> – administers the sedation and performs the dental treatment – must be a dentist or dental specialist appropriately educated and trained, in sedation¹⁴ 	<p>The '1st assistant':</p> <ul style="list-style-type: none"> – only monitors the patient throughout the dental treatment – must, at minimum, have received education and training in monitoring of sedated patients¹⁴ 	<p>The '2nd assistant':</p> <ul style="list-style-type: none"> – assists both of the other team members
Scenario 2	<p>The 'sedationist':</p> <ul style="list-style-type: none"> – administers the sedation and monitors the patient throughout the dental treatment – must be a dental or medical practitioner appropriately educated and trained, in sedation¹⁴ 	<p>The 'operator':</p> <ul style="list-style-type: none"> – the oral health practitioner who performs the dental treatment 	<p>The '2nd assistant':</p> <ul style="list-style-type: none"> – assists both of the other team members

The '1st assistant' and '2nd assistant' may be non-registered team members, for example, a chairside assistant.

¹⁴ Refer to Part III of the practice standard

9

You must monitor the patient, appropriately for the technique, drugs and level of sedation, throughout the sedation and recovery periods.

Guidance

- Monitoring of the patient is to be performed by a member of the sedation team who has received formal education and training in monitoring the sedated patient¹⁵.
- Monitor the patient in the same way during the sedation and recovery periods.

For all techniques and drugs administered for an intended level of minimal and moderate sedation, including nitrous oxide/oxygen:

- Observe the patient's level of consciousness, and rate and depth of breathing, directly and continuously.
- Communicate regularly with the patient during the period of sedation and recovery to confirm the patient's ability to respond to verbal commands - as an indicator of a state of minimal or moderate sedation.

For all techniques and drugs administered for an intended level of minimal and moderate sedation, excluding nitrous oxide/oxygen:

- Measure the blood pressure and heart rate by automated means, at the appropriate intervals.
- Continuously measure oxygen saturation of the blood using a pulse oximeter which alarms when certain set limits are exceeded.
- Consider capnography for measurement of the concentration of exhaled carbon dioxide in order to assess physiologic status or determine the adequacy of ventilation during sedation, particularly when providing an intended level of moderate sedation.

¹⁵ Refer to Part III of the practice standard

10

You must use oxygen appropriately for patients during the sedation and recovery periods.

Guidance

- Have the knowledge and skills to appropriately deliver oxygen to sedated patients.
- Consider the routine use of supplemental oxygen for patients from the commencement of sedation, through to readiness for discharge, particularly for:
 - patients with relevant medical conditions
 - when multiple drug techniques are used
 - when moderate sedation is intended.
- Have a positive-pressure oxygen delivery system immediately available for use, for the purposes of supplemental oxygen and correction of hypoxaemia, during the periods of sedation and recovery; and a back-up supply of oxygen immediately available.
- Check the oxygen delivery system is fully functional before the start of the sedation procedure.

11

You must, if you are the practitioner who performs the dental treatment, ensure:

- the person monitoring the patient throughout the recovery period has, at minimum, NZRC CORE Immediate rescuer training or equivalent
- a practitioner with formal education and training in providing sedation remains on the premises throughout the recovery period
- the practitioner who sedated the patient assesses the patient's suitability for discharge.

Guidance

- Sedated patients are vulnerable; respect and protect the patient's personal boundaries at all times.
- Use the following criteria, at minimum, to determine the suitability of the patient for discharge:
 - The patient can recognise time, place and person
 - Blood pressure and heart rate are within normal limits for that patient
 - Respiratory status is not compromised
 - The patient is able to walk with minimal assistance, or independently.
- Discharge the patient into the care of a suitable escort – usually a responsible adult to accompany the patient home and care for the patient for the time specified by the practitioner who administered the sedation.
- Provide the patient and escort with verbal and written instructions for the care and safety of the sedated patient, including emergency contact(s) information.
- Confirm the escort's understanding of the patient care instructions, and their agreement and capability to care for the patient as described.
- The patient's safety is the primary objective. In the event the escort does not arrive, arrange alternative arrangements to ensure the safety of the patient in the post sedation period.

Sedation-related complications

12

You must be able to identify and manage sedation-related complications, fitting for your role in the sedation team.

Guidance

- Identify sedation-related complications by correct monitoring of the patient.
- Assure yourself that other members of the sedation team involved in monitoring the patient can identify sedation-related complications.
- When you are the 'sedationist' or 'operator-sedationist' and sedation-related complications are identified:
 - Stop dental treatment and direct all members of the sedation team to devote their entire attention to the medical care of the patient
 - Continue monitoring the patient, and appropriately manage the situation until either the patient returns safely to the intended level of sedation, or emergency services arrive. IV administration of a suitable reversal drug/s may be appropriate.
 - Be prepared to use resuscitation techniques, if required
 - Contact emergency medical services for assistance as soon as you feel unable to manage the situation, and/or the patient is unresponsive to early management strategies.

13

You must have written procedures for managing sedation-related complications where the role of each sedation team member is clearly defined, and ensure these are known by all team members and rehearsed frequently.

Guidance

- Confirm each team member's understanding of their role in the event of sedation-related complications.
- Rehearse the procedures as a team, at minimum, at six-monthly intervals.

Part III: Education and training

14

You must complete a formal education and training programme that enables you to meet the competencies defined in Appendix B, and maintain competence, to provide sedation.

15

You must complete a formal education and training programme that enables you to meet the competencies in Appendix C [from 2019 onwards], and maintain competence, to monitor-only sedated patients.

Proviso: If you have attained the core competencies for providing sedation prior to [implementation date] through a combination of training, experience and continuing education, and have maintained competence, you do not need to complete a formal education and training programme to continue providing sedation.

Guidance

- Formal education and training is defined as a documented learning programme with specified aims and learning outcomes that enables the attainment of the Council defined core competencies for providing sedation and monitoring, and assesses achievement of these.
- The University of Otago Bachelor of Dental Surgery qualification is considered sufficient education and training to provide and monitor nitrous oxide/oxygen and oral sedation, subject to the practitioner maintaining competence in these areas. Additional formal education and training is required to provide IV sedation.
- Practitioners who have completed alternative formal education and training are responsible for determining whether it has enabled them to meet the competencies defined in Appendices B and C, to provide sedation or monitor-only sedated patients.
- When competence is not maintained, complete formal education and training before providing sedation; or monitoring-only [from 2019 onwards].
- When a non-registered team member is responsible for monitoring the sedated patient, the dentist or dental specialist in the sedation team is responsible for ensuring the non-registered team member has received formal education and training to monitor sedated patients [from 2019 onwards].

16

You must, if you provide the sedation, complete NZRC CORE Advanced resuscitation training every two years that includes scenario training relevant to the management of sedation-related complications.

Part IV: Documentation

Sedation records

17

You must keep accurate and contemporaneous sedation records as part of the patient record when sedation is provided or considered.

Guidance

- Include the following in the sedation records:
 - Initial assessment findings
 - The patient's written informed consent
 - Pre-operative and post-operative instructions
 - Names of sedation team members
 - Techniques and drugs used for sedation
 - Monitoring records
 - Details of any sedation-related complications
 - Discharge details.

Appendices

Appendix A: American Society of Anesthesiologists' (ASA) Classification of Physical Status¹⁶

ASA PS Classification	Definition	Examples, including, but not limited to:
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30<BMI<40), well-controlled diabetes/hypertension, mild lung disease.
ASA III	A patient with severe systemic disease	Substantive functional limitations; One or more moderate to severe diseases. Examples include (but not limited to): poorly controlled diabetes or hypertension chronic obstructive pulmonary disease morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, end-stage renal disease undergoing regularly scheduled dialysis, premature infant PCA(post conceptual age) < 60 weeks, history (>3 months) of myocardial infarct , cerebrovascular accident , transient ischemic attack , or coronary artery disease/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): recent (<3 months) myocardial infarct ,cerebrovascular accident ,transient ischemic attack , or coronary artery disease /stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction or ejection fraction, sepsis, disseminated vascular coagulation , acid reflux disease or end-stage renal disease not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes	
<p>* The addition of "E" denotes Emergency surgery: (An emergency is defined as existing when delay in treatment of the patient would lead to a significant increase in the threat to life or body part)</p>		

¹⁶ From ASA PHYSICAL STATUS CLASSIFICATION SYSTEM Last approved by the ASA House of Delegates on October 15, 2014
<file:///C:/Users/User/Downloads/asa-physical-status-classification-system.pdf>

Appendix B: Core competencies to provide sedation

A practitioner who is competent to provide sedation will:

Understand:

- The definitions of minimal, moderate, and deep sedation; and general anaesthesia.
- That the transition from complete consciousness through the various stages of sedation to general anaesthesia is a continuum, and not a set of discrete well-defined stages.
- The risks associated with sedation
- The need to use drugs for minimal and moderate sedation with a margin of safety wide enough to make loss of consciousness, or impairment of ventilatory or cardiovascular function unlikely.
- The benefits of using a sedation technique that allows the drug(s) to be titrated to effect; and the risks associated with using a technique that doesn't allow this.

Know:

- Anatomy and physiology of the respiratory, cardiovascular and central nervous systems in relation to sedation.
- How to perform a patient assessment, focussing on medical and physical assessment, to identify risk factors for sedation and determine the most suitable form of anxiety and/or pain management for the patient's circumstance.
- When to refer, based on consideration of assessment findings and a recognition of their capability to provide safe sedation.
- To gain written informed consent for sedation and the planned dental treatment before the sedation appointment.
- To provide the patient with relevant pre- and post-operative instructions; including those for fasting, if needed, and management of the patient's own medication prior to sedation.
- The pharmacology of the drugs they use (including reversal drugs for the sedatives being taught):
 - Basis for selection, dosing and techniques for administration.
 - Time of onset, peak effect and duration; as related to the administration technique(s).
 - Potential adverse effects and drug interactions.
 - Therapeutic index.
- The potential for synergistic effects of drugs when used in combination.
- How to titrate drugs to effect, or administer drugs as bolus doses (if suitable for the technique being used).

- The environment needed, including equipment and services, to safely provide sedation; for the sedation technique(s) being used.
- How to monitor the sedated patient - physical and physiological monitoring including central nervous system, respiratory and cardiovascular systems, and necessary equipment – appropriate for the technique(s) and drugs being used, and the intended level of sedation.
- How to prevent, identify and manage sedation-related complications, including when and how to use oxygen.
- When and how to use reversal drugs in the emergency management of sedation-related complications.
- How to assess a patient's suitability for discharge following sedation.

Be competent in:

- The technique(s) they use and drug(s) they administer to provide sedation.
- Monitoring the sedated patient.
- Preventing, identifying and managing sedation-related complications.

Appendix C: Core competencies to monitor-only sedated patients

A sedation-team member who is competent to monitor-only sedated patients will:

Understand:

- The definitions of minimal, moderate, and deep sedation; and general anaesthesia.
- That the transition from complete consciousness through the various stages of sedation to general anaesthesia is a continuum, and not a set of discrete well-defined stages.
- The risks associated with sedation.

Know:

- Anatomy and physiology of the respiratory, cardiovascular and central nervous systems in relation to sedation.
- How to monitor the sedated patient - physical and physiological monitoring including central nervous system, respiratory and cardiovascular systems, and necessary equipment – appropriate for the technique(s) and drugs being used, and the intended level of sedation .
- How to identify sedation-related complications; and when to advise the 'sedationist' or 'operator-sedationist' of any abnormalities or concerns.

Be competent in:

- Monitoring the sedated patient.