College of Dental Surgeons of British Columbia

The College is updating its documents to reflect the transition to regulation under the Health Professions Act and College Bylaws. The principles and requirements outlined in all documents continue to apply to dentists and CDAs.

DEEP SEDATION SERVICES

IN DENTISTRY

(NON-HOSPITAL FACILITIES)

This document contains standards of practice in relation to inducing deep sedation while providing dental services in British Columbia. Since contravention of these practice standards may be considered unprofessional conduct, dentists employing any modality of deep sedation must be familiar with the content of this document, be appropriately trained, and govern their professional practices accordingly.

These practice standards are minimum requirements and the CDSBC does not represent that they are sufficient or adequate in any particular situation. Dentists must exercise their own professional judgment in determining what practices and procedures they will employ in order to ensure patient safety and to minimize the risk of patient complaints or claims.

College of Dental Surgeons of BC
500 - 1765 West 8th Avenue
Vancouver, BC V6J 5C6
Phone (604) 736-3621
Fax (604) 734-9448

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

I. OVERVIEW

Deep sedation procedures in dentistry allow patients to have dental treatment with minimal physiological and psychological stress, and enhanced physical comfort.

The College of Dental Surgeons of British Columbia (the "CDSBC") has developed these Practice Standards which are designed to apply to all practitioners providing deep sedation services. The Practice Standards are intended to provide a framework for a reasonable standard of patient care, and should be interpreted in that light, allowing for some degree of flexibility in different circumstances.

It is recognized that there is a continuum of sedation, and, as a patient moves along the continuum from deep sedation to moderate sedation, the importance of having a deep sedation assistant present is diminished (see Chapter 2 for Deep Sedation Team requirements). Once a patient has clearly moved into a state of moderate sedation, it may not be necessary for the deep sedation assistant to be present. The practitioner administering the deep sedation must make a professional judgment to determine when a patient has moved into a state of moderate sedation.

Deep sedation facilities must not operate without an authorization from the CDSBC or the College of Physicians and Surgeons of British Columbia (the "CPSBC"). While these Practice Standards are concerned primarily with deep sedation services in dental offices, dentists must satisfy themselves that the equipment and procedures used in any location in which they operate conform to these standards.

Note: Any technique that depresses the patient beyond deep sedation is considered to be general anaesthesia, in which case the Practice Standards in the CDSBC *General Anaesthetic Services in Dentistry (Non-Hospital Facilities)* apply.

II. DEFINITIONS

In this document, the following definitions apply:

ACLS: Advanced Cardiac Life Support

BLS: Basic Life Support (CPR Level C)

CSA: Canadian Standards Association.

CDSBC: The College of Dental Surgeons of British Columbia.

CPSBC: The College of Physicians and Surgeons of British Columbia.

Committee: Sedation and General Anaesthetic Services Committee

Council: The governing body of the College of Dental Surgeons of British Columbia.

Deep sedation: A controlled state of depressed consciousness accompanied by partial loss of protective reflexes including the inability to respond purposefully to verbal command, produced by a pharmacologic or non-pharmacologic method or a combination thereof.

General anaesthesia: A controlled state of unconsciousness accompanied by loss of protective reflexes, including an inability to maintain an airway independently and to respond purposefully to physical stimulation or verbal command. This state therefore applies to any technique which has depressed the patient beyond deep sedation.

Moderate sedation: A depression of consciousness during which patients respond purposefully to verbal command, either alone or when accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained. Usually associated with multiple oral drugs combined with or without nitrous oxide/oxygen, or parenteral sedation.

Standards: The practice standards described in this document.

Operating dentist: A licensed member of the College of Dental Surgeons of British Columbia.

OMAAP: Oral and Maxillofacial Surgeons Anaesthesia Assistant Program.

Registrar: The Registrar of the College of Dental Surgeons of British Columbia.

Sedation/General Anaesthesia Register: A College of Dental Surgeons Register of dentists providing sedation and/or general anaesthesia services.

Category I:	Moderate sedation
Category II:	Deep sedation
Category III:	General Anaesthesia

Standards: The practice standards described in this document.

CHAPTER 2

STANDARDS FOR DEEP SEDATION

I. DEEP SEDATION TEAM

In circumstances where the operating dentist is simultaneously providing deep sedation services with other dental procedures, the deep sedation team must consist of the following individuals: operating dentist, deep sedation assistant, operative assistant, recovery supervisor, and office assistant. Where there is a qualified person other than the operating dentist (see item A.1 below) administering the deep sedation, the deep sedation assistant is not usually required.

Dentists, physicians and other personnel on the deep sedation team should be instructed in and be familiar with proper deep sedation protocol, and their responsibilities should be outlined in current job descriptions. All clinical staff must be trained in BLS (CPR Level C), and their duties in an emergency must be well defined.

A. PRACTITIONER ADMINISTERING DEEP SEDATION

1. Qualifications

Deep sedation services must only be administered by dentists or physicians who are currently licensed to practise in British Columbia with their respective College and who possess the following additional qualifications:

- Dentists who have successfully completed a postgraduate program in anaesthesia in a university and/or teaching hospital, for at least 12 consecutive months, with the program specifically evaluating and attesting to the competency of the individual. Evidence of successful completion of a provider course in Advanced Cardiac Life Support (ACLS) is also required.

- Dentists who have successfully completed a postgraduate program in oral and maxillofacial surgery suitable for specialty certification in British Columbia, incorporating adequate training in anaesthesia and ACLS, with the program specifically evaluating and attesting to the competency of the individual in these areas.

- Dentists who have not completed training in ACLS as part of a postgraduate program are required to successfully complete a course in ACLS approved by the College.

- Physicians currently approved by the CPSBC to provide general anaesthesia.

2. Approval of Qualifications

Dentists must submit to the CDSBC credentials that confirm the foregoing qualifications and must be approved by the CDSBC before administering any deep sedation services.

3. Responsibilities

A practitioner or operating dentist must not provide deep sedation services or perform dental services on a patient who is under deep sedation unless the operating dentist is satisfied that these Practice Standards will be met.

Practitioners administering deep sedation must possess the knowledge and technical skills necessary to perform such services to required standards, including the ability to:

- Provide pre-sedation evaluation of the patient and determine appropriate management
- Administer the deep sedation
- Monitor and support the vital organ systems during the sedation period
- Provide immediate post-sedation management of the patient
- Provide resuscitation or emergency care, if necessary

In addition to clinical responsibilities, practitioners administering deep sedation must also ensure the following are in place:

- policies and procedures concerning the safe administration of deep sedation, including education, training and supervision of personnel
- procedures for maintenance of necessary records for the evaluation of all deep sedation services provided in the facility

B. OPERATING DENTIST

The dentist providing services under deep sedation must be currently licensed to practise by the CDSBC and must be familiar with the modality being used for pain and anxiety control, including indications, contraindications, patient evaluation, patient selection, pharmacology of relevant drugs, and management of potential adverse reactions. The dentist must also hold a current BLS (CPR Level C) certificate.

C. DEEP SEDATION ASSISTANT

The deep sedation assistant must be a nurse currently registered with the Registered Nurses Association of BC, a person who has successfully completed a respiratory therapy program, a dentist currently licensed to practise by the CDSBC, a physician currently licensed to practise by the CPSBC, a person who has successfully completed the OMAAP (*Please note that dentists must not delegate to a certified dental assistant any duties that are not listed in the scope of practice of Article 10.16 and*

10.17 of the Dentists Act), or a person who has completed a comparable program approved by Council. Responsibilities include assessing and maintaining a patent airway, monitoring vital signs, recording appropriate findings, venipuncture, administering medications as required, and assisting in emergency procedures. The deep sedation assistant must hold a current BLS (CPR Level C) certificate.

Note: The roles of the deep sedation assistant and the operative assistant are independent of each other and cannot be combined. Two individuals are required to discharge the respective responsibilities of these positions.

D. OPERATIVE ASSISTANT

The operative assistant must be appropriately trained and must hold a current BLS (CPR Level C) certificate.

E. RECOVERY SUPERVISOR

The recovery supervisor's primary duties and responsibilities are supervising and monitoring patients in the recovery area. The recovery supervisor must be a nurse registered with the Registered Nurses Association of BC, a dentist currently licensed to practise by the CDSBC, a physician currently licensed to practise by the CPSBC, a person who has successfully completed the OMAAP, or a person who has completed a comparable program approved by Council. Responsibilities include assessing and maintaining a patent airway, monitoring vital signs, recording appropriate findings, venipuncture, administering medications as required, and assisting in emergency procedures. The recovery supervisor must have adequate training in post-sedation recovery and must hold a current BLS (CPR Level C) certificate.

II. PHYSICAL FACILITIES

The facility must comply with all applicable federal, provincial and municipal laws, including building and fire codes. Emergency ambulance and treatment service must also be available in the community. The facility must be authorized by the CDSBC (see Chapter 3), or by the CPSBC.

A. LAYOUT AND DESIGN

The general physical design for a deep sedation facility depends on the number and types of dental and surgical procedures to be performed. Traffic flow for patients and staff should be convenient and must permit ready transfer of emergency cases to an acute care facility. Doorways must be wide enough to allow wheelchair, stretcher, and chaircot access.

1. Space Requirements

Functions needing adequate space are:

- Reception and waiting
- Administrative activities for patient interview, patient admission, business functions, record storage
- Pre-operative evaluation and preparation for deep sedation
- Operative/surgical treatment
- Post-sedation recovery
- Preparation and sterilization of instruments
- Storage for equipment, gases, drugs and supplies
- Staff activities

2. Operating Room and Recovery Area

The operating room and the post-sedation recovery area, if separate from the operating room, must provide a safe environment. Requirements include the following:

- Areas must be large enough to accommodate all required equipment and staff.
- Dental chairs and tables used for deep sedation and recovery must be adequately padded and adjustable (capable of being placed in supine and head down positions).
- Electrically operated equipment must meet applicable CSA standards.

B. UTILITIES/BACKUP SYSTEMS

1. Electrical Supply/Lighting

- Electrical outlets must be accessible and adequate to accommodate all necessary equipment.
- Room lighting must be adequate to permit evaluation of the patient's skin and mucosal color.

2. Suction

- Bedside suction must be available for every patient in both the operating room and recovery areas.

Because of the possibility of a power failure, central medical gas system failure, or equipment malfunction, appropriate backup must be available to provide light, suction, and oxygen.

III. FACILITY OPERATING REQUIREMENTS

A. INFECTION CONTROL

Sterilization facilities must conform to currently accepted standards of practice in the area of infection control, and, at a minimum, all sedation equipment which comes into direct contact with patients must be cleaned, disinfected, and sterilized before use. Procedures for safe disposal of clinical materials must also be in place.

B. DRUG CONTROL

- Appropriate storage must be available for clinical materials and drugs (e.g., refrigeration where required).
- All drugs and agents must be correctly identified and not out-dated.
- All supplies of narcotics must be appropriately recorded and stored in a separate, locked cabinet.

C. SAFETY REQUIREMENTS

All applicable laws and regulations pertaining to the safe operation of a deep sedation facility must be complied with, including all applicable laws and regulations pertaining to:

- the preparation, storage, identification and use of medical gases, sedative drugs and related materials;
- hazards from fires, explosions, electrical facilities, electrocution, earthquake, and other natural hazards; and
- the safe and effective operation of all equipment used in the facility.

D. MEDICAL EMERGENCY PROCEDURES

The deep sedation team must be prepared to recognize and treat adverse responses, utilizing appropriate equipment and drugs when necessary, and must be capable of initiating definitive treatment for medical emergencies. All members of the deep sedation team must have the training and ability to perform basic cardiac life support techniques.

Protocols for emergency procedures, including arrangements for hospital transfer, must be established and reviewed on a regular basis. Emergency numbers must be posted by the telephones in the facility, and the duties of all staff (practitioner administering the deep sedation, operating dentist, deep sedation assistant, operative assistant, recovery supervisor, receptionist, etc.) should be specified in writing.

IV. DEEP SEDATION ARMAMENTARIUM

All necessary equipment, drugs and supplies comprising the deep sedation armamentarium must be readily available and in proper working order, including emergency equipment for resuscitation and life support.

The practitioner administering the deep sedation must be familiar with these Practice Standards, and the facility's current list of deep sedation equipment, corresponding log books indicating maintenance and servicing, and list of drugs available with their expiry dates noted.

A. GENERAL CONSIDERATIONS

1. Equipment Standards

Medical gas piping systems, physiological monitoring equipment, and related medical devices must meet current CSA standards unless the Committee is satisfied that compliance with those standards is not necessary. (Refer to Appendix I: CSA Contact Information.) In addition, the specific requirements of provincial legislation must be adhered to.

2. Servicing, Maintenance and Inspections

Medical gas piping systems, monitoring equipment and related medical devices must receive the care and maintenance recommended by the manufacturer. Equipment must be serviced by qualified personnel in accordance with the manufacturer's specifications, or annually, whichever is more frequent. Details of such servicing and maintenance must be recorded in an appropriate logbook, which must be available on the premises for the review of the practitioner(s) using the equipment.

All medical devices (including anaesthetic machines and accessories, monitors, pulse oximeters, oxygen analyzers, temperature probes, defibrillators, etc.) must only be serviced by a registered biomedical engineer or a biomedical technologist having expertise in deep sedation and general anaesthetic medical device technology and related standards. All medical devices must be inspected by a registered biomedical engineer or a biomedical technologist, as described above, at the greater of the following frequencies:

- As recommended by the manufacturer.
- Every six months for anaesthetic machines.
- Every twelve months for all other medical devices.

In addition, defibrillators must be inspected and discharged bi-monthly by appropriately trained personnel, and details of these inspections must be recorded in a logbook maintained by the

owner of the facility. (Refer to Appendix II: *Inspection of Medical Devices.*)

Note: If a visiting dentist or physician brings his/her own monitoring equipment to an authorized deep sedation facility, it must also be serviced, maintained and inspected as required by these Practice Standards, and appropriate records must also be maintained.

B. DEEP SEDATION DELIVERY SYSTEM

Components of the deep sedation delivery system may include sources of compressed oxygen and anaesthetic gases, reducing valves, flowmeters, vaporizers, carbon dioxide absorption systems, inspiratory and expiratory valves, escape valves, reservoir bags, breathing tubes, and face masks.

1. Machines used for the delivery of medical gases are numerous in terms of type, style and manufacturer. Regardless of which specific machine is used, it must function reliably and accurately with respect to gas pressure and concentrations, and must comply with all standards described in item IV.A above.
2. The installation of gas piping or conducting systems must be performed by competent and experienced personnel, and must comply with all standards dictated by the manufacturer and applicable regulatory bodies.
3. Appropriate safety indexing systems for all medical gas connections must be in place to eliminate the possibility of connecting the wrong medical gas in the system.
4. Before each case, adequacy of the volumes of gases on hand should be confirmed, along with the availability of a backup supply of oxygen to ensure that the supply of oxygen cannot fail during treatment. The reserve supply of oxygen should be a portable cylinder (minimum “E” size), ready for immediate use with appropriate regulator, flowmeter and connectors attached.
5. Gases must be stored and properly locked so that they are inaccessible to third parties.
6. A satisfactory scavenging system for removing waste anaesthetic gases from the office environment must be installed according to the manufacturer’s specifications and tested periodically as required in British Columbia hospitals. (Refer to Regulations made under the *Workers Compensation Act*.)

C. PHYSIOLOGICAL MONITORING EQUIPMENT

The non-hospital deep sedation facility owner is responsible for the provision and maintenance of physiological monitoring equipment that meets original performance specifications and standards as described in item IV.A above. These devices are not a substitute for constant personal contact with the patient, and must not replace sound clinical judgment and observation of each individual case.

The following must be available for each sedated patient:

1. Stethoscope (either precordial, esophageal or paratracheal).
2. System for monitoring blood pressure with appropriately sized cuffs.
3. ECG monitor with continuous audible signal recognition.
4. System for monitoring temperature (if triggering agents for malignant hyperthermia are used).
5. Pulse oximeter.
6. If secondary/tertiary gases are used, oxygen gas analyzer with alarm or fail-safe mechanism for cut-off of non-oxygen gases.

In addition, at least one functional battery-powered pulse oximeter must be available.

D. ESSENTIAL AIRWAY EQUIPMENT

The facility must be equipped to enable comprehensive management of the airway, electively or in response to an emergency.

1. Bag and Mask Management

- Oral and nasopharyngeal airways appropriate for patient's size.
- Ventilation apparatus with adapter to fit tracheal tube.
- Facemasks appropriate for patient's size that can be used with ventilation apparatus.
- Oxygen source that can be used with ventilation apparatus.

2. Suction Apparatus

The following equipment must be present, adapted to the vacuum system and compatible with a functional back-up vacuum system:

- Tonsil suction.
- Catheters for cleaning the pharynx, larynx, trachea, and bronchi.
- Nasogastric tubes.

3. Intubation

The following intubation equipment must be present:

- Laryngoscope with preferred blades.
- Extra laryngoscope.
- Blades of different sizes and types (curved and straight).
- Spare batteries and bulbs.
- Endotracheal tubes of appropriate sizes, cuffed and non-cuffed.
- Syringe for inflating cuff.
- Lubricants.

- Stylettes that will fit tracheal tube.
- Forceps (Magill).
- Emergency airway adjuncts (difficult intubation kit), which must include tracheotomy or cricothyrotomy sets.
  (Note: At the discretion of the practitioner administering the deep sedation, the intubation equipment may include laryngeal mask and lighted sylette.)

E. DEEP SEDATION DRUGS AND SUPPLIES

1. Sedative Drugs

The choice of sedative drugs must be determined by the practitioner administering the deep sedation, who must ensure that all drugs are current and stored appropriately.

The prescribing and dispensing of drugs should comply with CDSBC Policy on that subject.

2. Venipuncture

Intravenous equipment and supplies must include the following:

- Cannulas (needles).
- Catheters.
- Administration sets (adult/pediatric/mini-drip).
- Intravenous stand.
- Intravenous solutions (choice to be determined by practitioner administering the deep sedation).

3. Other Supplies

Accessory equipment and supplies such as the following must be available and stored appropriately:

- Needles (various types/sizes).
- Syringes (various sizes).
- ECG leads and electrodes.
- Defibrillation paste or pads.
- Sponges, tape, etc.
- Throat packs.
- Lubricants.
- Disposal container for sharps.
- Padding (e.g., pillow) to help in head positioning.

F. EMERGENCY ARMAMENTARIUM

Emergency equipment and drugs must be readily available at all times. Drugs must be current and stored in readily identifiable, labeled trays or

bags. Space permitting, a "crash cart" is an ideal vehicle for storage and conveyance, but other appropriate containers may also be used.

1. Emergency Equipment

a. Airway Adjuncts (see item D, Essential Airway Equipment)
b. Intravenous Equipment (see item E2, Venipuncture)
c. Defibrillator

Each facility must have a defibrillator that conforms to CSA standards. It must be tested bi-monthly by appropriately trained personnel, and, as previously noted, records of testing and maintenance must be kept in an appropriate logbook.

Note: The equipment required for long-term cardiac life support is not essential in an out-patient deep sedation facility, because there is a low likelihood of it being used, and also because attempts to initiate its use would likely delay hospital transfer.

2. Emergency Drugs

A. Essential Emergency Drugs

There must be a minimum of two ampoules, except as noted, of the following essential emergency drugs:

- Adenosine
- Atropine
- Benadryl
- Dantrolene sodium (8 - 12 ampoules, enough for 2 mg/kg dose), if a triggering agent is used
- Epinephrine
- Flumazenil, if benzodiazepines are being used
- Hydrocortisone or Solumedrol
- Lidocaine
- Naloxone, if narcotics are being used
- Nitroglycerine
- Succinycholine
- Ventolin

B. Highly Recommended Emergency Drugs

It is highly recommended that the following emergency drugs also be kept on hand:

Amiodarone
Digoxin
Ephedrine
Furosemide
Hydralazine
Isoproterenol
Labetalol hydrochloride
Morphine
Phenylephrine

Procainamide
Propranolol
Sodium bicarbonate 50 meq
Verapamil

V. DEEP SEDATION PROCEDURE

A. PRE-SEDATION EVALUATION

1. Since deep sedation procedures are potentially life threatening, patients about to undergo deep sedation in a non-hospital facility should normally conform to American Society of Anaesthesiology (ASA) physical status Class I (normal healthy patient) or Class II (patient with mild systemic disease). However, Class III patients (patients with severe systemic disease that limits activity but is not incapacitating) may be accepted for treatment if the patient's disease is not expected to be affected by the sedation. Patients not conforming to these classifications should be referred to a hospital for deep sedation, or consideration should be given to a more appropriate sedation technique. In any surgical procedure where post-operative care and observation are expected to be lengthy, the patient should be hospitalized.

AMERICAN SOCIETY OF ANAESTHESIOLOGY PHYSICAL STATUS CLASSIFICATION SYSTEM	
ASA I:	A normal healthy patient.
ASA II:	A patient with mild systemic disease.
ASA III:	A patient with severe systemic disease that limits activity but is not incapacitating.
ASA IV:	A patient with incapacitating systemic disease that is a constant threat to life.
ASA V:	A moribund patient not expected to survive 24 hours with or without operation.
ASA E:	Emergency operation of any variety; E precedes the number indicating the patient's physical status.

2. The pre-sedation evaluation must be conducted by the practitioner who will be providing the deep sedation services to the patient, or by the patient's physician in consultation with the practitioner administering the deep sedation. At the time of the pre-sedation visit, the practitioner should take a medical history and perform an appropriate physical examination to facilitate plans for the administration of deep sedation. The history should include inquiries regarding previous drug therapy, unusual reactions or responses to drugs, and previous deep sedation/anaesthetic experiences, including problems and complications. Information about deep sedation which a reasonable person would consider relevant, including the risks and nature of complications which may occur, should be discussed and confirmed in writing. Details of the pre-sedation assessment must also be documented on the patient's chart.

3. Where indicated, pertinent medical consultations and laboratory tests must be obtained and the results reviewed pre-operatively. The requirement for tests is determined by the practitioner administering the deep sedation based on the patient's medical history.

4. The time interval between the pre-sedation evaluation and the deep sedation procedure should not exceed 90 days. If that time period is exceeded, a further pre-sedation evaluation should be considered. The practitioner administering the deep sedation should confirm, immediately before commencing the administration of deep sedation, that there have been no changes in the patient's medical condition since the original deep sedation evaluation which would affect the safe provision of deep sedation services.

5. The operating dentist and the patient's physician have a responsibility to inform the practitioner administering the deep sedation of problems known to them which may affect the safe administration of deep sedation. The practitioner administering the deep sedation must be aware of the planned dental procedures, duration of the procedures, potential blood loss, number of appointments anticipated, and any drugs the operating dentist intends to use (including their routes of administration) pre-operatively, during the treatment, and post-operatively. It is the responsibility of the practitioner administering the deep sedation to determine whether or not the clinical information and laboratory test results are adequate, if further consultation is required, and, in the final analysis, whether it is safe for the patient to undergo deep sedation.

6. Any difference of opinion between the operating dentist and the practitioner administering the deep sedation with regard to the care of the patient must be resolved before the operation.

B. INFORMED CONSENT

Any intentional touching of a person without the person's consent may constitute a battery.

It is therefore very important that written informed consent be obtained during the pre-operative visit and before any sedative is administered. Consent to a particular dental treatment does not necessarily imply consent to the use of deep sedation. It is highly recommended that a specific consent for each be obtained in writing.

Except in an emergency, the patient must be given an appropriate non-technical explanation of the planned treatment, associated hazards or complications, and chances of success or failure. The patient should also be advised on alternatives to the planned dental and deep sedation procedures, including the alternative of not undergoing treatment, and

the possible consequences of those alternatives. It is highly recommended that this not only be documented in the patient's records but also confirmed to the patient in writing. Whenever possible, the patient must be given a choice of treatment alternatives.

If the patient is either a minor who does not meet the consent criteria in Section 17 of the *Infants Act* (as it may be amended from time to time), or is an adult who is incapable of giving or refusing consent to the proposed treatment, the informed consent must be obtained from the minor's parent or from the minor's or incompetent adult's legally authorized representative.

Dentists should seek specific legal advice if they are unsure or have any difficulty in determining who, in a particular situation, qualifies as the minor's or incompetent adult's legally authorized representative, or whether the patient is competent to provide an informed consent.

Note: The pre-sedation and post-sedation responsibilities of the patient are an important aspect of treatment, and it is highly recommended that written acknowledgment of these be obtained at the same time as the informed consent.

C. PRE-SEDATION INSTRUCTIONS

The patient must be adequately instructed in preparation for deep sedation and should be provided with a pre-sedation instruction sheet. A standard policy should be followed concerning the minimum time interval from last oral intake to the induction of deep sedation (e.g., minimum of three hours after clear fluids and minimum of six hours after solid food is recommended). Possible exceptions to this policy would include usual medications or pre-operative medications, which may be taken as deemed necessary by the dentist. Medication to be taken by a patient before deep sedation should be ordered by the practitioner administering the deep sedation, or by the dentist providing treatment, in consultation with the practitioner administering the deep sedation. Dosage, time and route of administration must be specified.

D. ADMINISTRATION OF DEEP SEDATION

1. Immediately before the administration of deep sedation, the presence and serviceability of equipment should be confirmed using a standardized checklist to prevent any oversights or omissions.

2. The practitioner administering the deep sedation must ensure that a continuous intravenous access is established and maintained throughout the procedure. An intermittent or continuous fluid administration must be used to ensure patency.

3. It is recommended that the duration of a deep sedation procedure in a non-hospital facility be no longer than three and one half-

hours per session, as sedations of longer duration have a significantly higher incidence of complications and prolonged recovery times.

4. In a non-hospital deep sedation facility, the practitioner administering the deep sedation is primarily responsible for the patient and must remain with the patient at all times during the deep sedation, including the recovery period, unless the recovery area is constantly staffed by a recovery supervisor with training in post-sedation recovery. The practitioner administering the deep sedation must determine the appropriate time to transfer the patient to the recovery area and must provide direction for the patient's release from the facility.

5. The dentist should recognize that the sedation of children represents a unique clinical challenge. The child's age and weight must be considered and dosages adjusted accordingly to ensure that the intended level of sedation is not exceeded.

The practice of simultaneous or overlapping administration of deep sedation by one dentist or physician for concurrent dental procedures on two or more patients is unsafe and therefore impermissible.

E. MONITORING

The practitioner administering the deep sedation is responsible for monitoring the patient. This includes making sure that appropriate monitoring equipment is available and properly maintained, and that policies for monitoring requirements are established to help ensure patient safety.

Clinical observation must be supplemented by the following means of physiological monitoring, usually performed every five minutes, throughout the deep sedation administration:

1. Continuous pulse oximetry.
2. System to monitor blood pressure.
3. Continuous electrocardioscope monitoring, at the discretion of the practitioner administering the deep sedation.
4. If using an anaesthetic machine, oxygen gas analyzer with alarm.

Monitoring equipment should be equipped with appropriate alarms to signal malfunctions or any other threats to patient safety.

F. RECOVERY AND DISCHARGE

The patient should remain in the dental chair and not be moved to the recovery area until he/she has regained protective reflexes. Earlier transfer may only be considered if the recovery area is appropriately equipped and constantly staffed by a trained recovery supervisor who can supervise and monitor the patient. The practitioner administering the deep sedation should discuss the care of the patient with the recovery room staff, identifying any special problems related to the patient's safe recovery from the sedated state. Pulse oximetry must be available.

Recovery status post-operatively and readiness for discharge must be specifically assessed and recorded by the practitioner administering the deep sedation or by the recovery supervisor. The practitioner administering the deep sedation must remain on the premises until the patient meets the following minimum recovery criteria: conscious and oriented (e.g., to time, place and person relative to the pre-sedation condition), stable vital signs (blood pressure, heart rate, and oxygen saturations), ambulatory, and showing signs of progressively increasing alertness. The patient must be discharged from the facility to the care of a responsible adult.

G. POST-SEDATION INSTRUCTIONS

It is highly recommended that written post-sedation instructions be given to the patient as part of the treatment plan presentation and also be given to the person accompanying the patient upon discharge from the facility. The patient should be advised not to drive an automobile or operate machinery for at least 24 hours, or longer if drowsiness or dizziness persists. He/she should also be advised to refrain from consuming alcoholic beverages and sedative drugs, as they prolong the effects of the drugs that have been administered. It is highly recommended that the post-sedation responsibilities of the patient be acknowledged in writing as part of the informed consent.

VI. SEDATION RECORDS

A. PRE-SEDATION RECORD

At a minimum, a pre-sedation patient evaluation record must be obtained and must contain the following information:

1. Vital Statistics

- patient's full name, date of birth, gender.
- name and phone number of person to be notified in the event of an emergency.
- in the case of a minor or an incompetent adult, name of the parent or legally authorized representative.

2. Medical History Questionnaire

The information on the medical history questionnaire must be adequate, current, clearly recorded and signed by the patient or legally authorized representative. It must elicit core information for determining the correct ASA physical status classification, in order to assess risk factors in relation to deep sedation, and it must provide written evidence of a logical process of patient evaluation.

Core information should include the evaluation and recording of significant positive findings related to the following:

- general questions
- drug therapy
- sensitivities/allergies
- heart and blood vessels
- brain and nervous system
- blood
- lungs and respiratory system
- endocrine system
- gastrointestinal system
- genitourinary system
- neuromuscular/skeletal system
- ears/nose/throat/eyes
- mental condition
- infectious diseases
- cancer/radiation/chemotherapy
- organ transplants
- medical implants
- symptoms review

3. Physical Examination

The physical examination must include the evaluation and recording of significant positive findings related to:

- general appearance (note obvious abnormalities)
- head, neck and intra-oral examination (particularly pertaining to airway, such as range of motion, loose teeth, crowns, dentures, potential obstruction from large tongue, tonsils, etc.)
- cardiovascular system, including measuring and recording of vital signs (blood pressure,
- pulse rate, volume and rhythm, auscultation as indicated)
- pulmonary, auscultation and/or other assessments as required
- examination of other physiologic systems as indicated (endocrine, neurologic, musculoskeletal, gastrointestinal, genitourinary)
- other assessments, including laboratory tests as indicated

B. DEEP SEDATION RECORD

When determining the format of the deep sedation record to be used, practitioners should ensure that the information is clear and readily understood. The following information must be appropriately recorded:

- patient name
- date of procedure
- verification of NPO (nothing by mouth) status
- verification of accompaniment for discharge
- pre-operative blood pressure, heart rate, and oxygen saturation
- ASA physical status classification
- names of all drugs administered
- doses of all drugs administered
- time of administration of all drugs
- intravenous type, location of venipuncture, type and amount of fluids administered
- list of monitors used
- record of systolic and diastolic blood pressure, heart rate and oxygen saturation at appropriate intervals (automated printout of monitors may be attached in lieu of handwritten recording of these signs)
- time of the start and completion of the administration of deep sedation
- time of the start and completion of the dental procedure(s)
- recovery period
- discharge criteria met: oriented, ambulatory, vital signs stable (record of blood pressure, heart rate, oxygen saturation)
- time of discharge/name of accompanying adult
- name of practitioner administering the deep sedation responsible for the case
- notation of any complication or adverse reaction

C. RESUSCITATION RECORD

In the event of a cardiac arrest, a resuscitation record must be completed. The form for the resuscitation record should be kept with the defibrillator so that it is immediately available if an emergency arises. The resuscitation record should include the following:

- patient name
- date/time of arrest
- arrest condition
- time resuscitation stopped
- respiratory management
- cardiac management
- time cardiac shock applied and number of joules
- names of all drugs administered and by whom
- doses of all drugs administered
- time and route of administration of all drugs
- intravenous type, location of venipuncture, type and amount of fluids administered

D. INCIDENT REPORT

Cases resulting in the need for resuscitation, referral of a patient to a hospital, or death must be reported to the Registrar immediately. The initial contact should be made by telephone and must be followed promptly by the submission of a complete report to the Registrar. A sample incident report is contained on page 4-10.

CHAPTER 3

AUTHORIZATION FOR NON-HOSPITAL DEEP SEDATION FACILITIES

I. INTRODUCTION

Dental offices, clinics and facilities providing deep sedation services independent of a hospital setting must have current authorization from the CDSBC (or the CPSBC). The authorization process is designed to ensure that the delivery of deep sedation services within the facility conforms to these Practice Standards. The issuance of an authorization is not, however, an endorsement of any particular facility, technique or practitioner.

Note: Non-hospital facilities that are authorized to provide general anaesthetic services in dentistry automatically meet the requirements for deep sedation and do not require a further authorization.

II. AUTHORIZATION CLASSIFICATIONS

Authorization status is determined by the Committee on the basis of a site visit by a survey team. The findings of the survey team and the recommended authorization status are contained in a report which is sent to the owner of the facility and the CDSBC.

A. FULL AUTHORIZATION

A full authorization is granted when the facility meets the minimum requirements outlined in this document. This status is valid for three years from the date of the original site visit. When a full authorization is granted following provisional or unacceptable for authorization status, the term of the authorization is for the balance of the three-year term, starting from the date of the original site visit.

B. PROVISIONAL AUTHORIZATION

A provisional authorization is granted if it has been determined that the facility has deficiencies in one or more specific areas but is still considered adequate to maintain minimum standards of patient care. This authorization status requires follow-up and, in some cases, may require additional site visits, for which additional fees may be charged. Deficiencies must be rectified within 60 calendar days, failing which the provisional authorization will lapse. The facility is then obliged to stop providing deep sedation services until full authorization is obtained or the Committee extends the duration of the provisional authorization.

C. UNACCEPTABLE FOR AUTHORIZATION

Unacceptable for authorization is indicated when deficiencies or weaknesses are so serious that patient safety is or appears to be at risk. This status requires immediate cessation of deep sedation services in the facility. Resumption of deep sedation services in the facility is only allowed when the deficiencies have been corrected.

III. SURVEY TEAM

The survey team visits the site and is responsible for preparing a joint written report of its findings and recommending an authorization status to the Committee. A roster of qualified surveyors is maintained by the CDSBC, from which the required number of individuals is selected for each survey team.

A. MEMBERSHIP

1. A dentist currently licensed to practise by the CDSBC or a practitioner currently licensed to practise by the CPSBC, who meets the criteria for administering deep sedation.

2. A biomedical engineer currently registered with the Association of Professional Engineers and Geoscientists of British Columbia, or a biomedical technologist supervised by a professional engineer, who has training in deep sedation medical device technology and associated standards.

B. SELECTION OF SURVEY TEAM – OPPORTUNITY/OBLIGATION TO RAISE CONCERNS

Appointments to the survey team are made by the CDSBC and are presented to the registered owner of the facility who has an opportunity to request an alternate surveyor should there be a concern regarding bias or conflict of interest. The registered owner has an obligation to raise any concerns regarding the selection of the survey team within seven calendar days of being notified of the composition of the survey team.

C. CONFIDENTIALITY

All documentation and discussions related to the site visit are confidential and must not be divulged by the survey team or the CDSBC, except where required by law or as required to administer and enforce these Practice Standards.

IV. SURVEY FOR AUTHORIZATION OF FACILITY

A. APPLICATION

1. Initial Application

New facilities must obtain an authorization (whether full or provisional) before providing deep sedation services. An application for a survey for authorization must be submitted in writing to the CDSBC at least 45 calendar days before the anticipated opening of the facility.

2. Renewal Application

An owner of a facility seeking a renewal of its authorization must submit an application for renewal and a site visit in writing to the CDSBC at least 45 calendar days before the expiry date of the existing authorization. A reminder of the impending expiry of authorization is sent by the CDSBC 60 days prior to expiry date.

3. Qualifications of Facility Staff

An initial application and a renewal application must identify the facility staff comprising the Deep Sedation Team and describe their qualifications.

B. SURVEY SCHEDULING

Upon receipt of an initial application for authorization, an on-site survey by the appointed survey team will normally take place within 30 calendar days. In the case of a renewal application, the CDSBC will advise the owner of the facility of the date on which the survey team will attend, which will normally be at least 30 days before the expiry of the authorization. If visiting dentists or physicians provide their own monitoring equipment, this monitoring equipment also must be available for examination along with their service and maintenance logbooks. Re-surveys are scheduled as required.

C. FEES FOR SURVEY

Survey fees are intended to offset the cost of site visits and are the responsibility of the owner of the facility. If a further survey site visit is required, an additional fee will normally be charged. The fee schedule is determined from time to time by the CDSBC Council and payment must be received with the request for renewal and site visit.

D. SITE VISIT

Site visits are normally scheduled during business hours. All members of the survey team are expected to participate in the site visit at the same time. During the site visit, the survey team examines the following to determine if they meet the Practice Standards:

- Physical facilities
- Deep sedation delivery systems
- Physiological monitoring equipment
- Essential airway equipment
- Deep sedation drugs and supplies
- Emergency armamentarium
- Deep sedation protocol, including emergency procedures
- Deep sedation records
- Equipment records

Satellite Facilities

Deep sedation services may be offered on a satellite basis. In these circumstances, the practitioner administering deep sedation may bring to the satellite facility certain equipment and drugs not routinely kept on the premises. Such equipment and drugs must come from an authorized facility, and copies of relevant documents, confirming the authorization, must be supplied to the survey team.

E. SURVEY REPORT

Assessments made by the survey team are based on the requirements outlined in this document. Weaknesses and/or deficiencies are specifically identified in relation to requirements, and, where applicable, time limits for rectification and/or the need for an additional site visit are specified. The survey team may also offer suggestions which could lead to an improvement in the functioning of the facility. However, the registered owner is not obliged to implement these suggestions, and the results of the site visit are independent of them.

The survey team is responsible for preparing a joint written survey report with a recommendation. The joint written survey report is forwarded to the facility owner who then has an opportunity to review the report for verification of factual data and to provide general comments. The survey team may prepare a revised survey report based on those comments. The survey report, together with any outstanding points of contention or comments, is presented to the Committee for its consideration.

Upon review of the survey report by the Committee, an appropriate authorization status is issued, effective as of the date of the original site visit. Once full authorization has been obtained, the facility owner will be so advised in writing.

The Committee may accept or reject the recommendation of the survey team contained in the survey report. In circumstances where the survey team has recommended a full or provisional authorization and the

Committee is having difficulty in accepting that recommendation, the Committee will advise the facility owner and will, where possible to do so without jeopardizing patient safety, allow the facility owner to make his or her views known to the Committee before the Committee makes a decision on the authorization status of the facility.

Where the Committee concludes that a facility is unacceptable for authorization, the facility owner will be so advised in writing, and the owner must immediately cease providing deep sedation services in the facility until such time as provisional or full authorization is obtained.

F. FOLLOW-UP

A facility that receives a provisional authorization as a result of a site visit is required to submit a progress report within the time specified. That report should comprehensively document how the facility has rectified the deficiencies identified in the survey report. In some instances, a further site visit may be required.

If a facility owner who has received an unacceptable for authorization status presents documentation concerning the rectification of deficiencies which satisfies the Committee that patient safety is no longer jeopardized, the Committee will issue a provisional authorization for the facility. A further site visit may be required in order for the Committee to be satisfied that patient safety is no longer jeopardized. Additional fees may be charged for such further site visits.

G. ANNUAL FACILITY SELF-ASSESSMENT AND STATUS CONFIRMATION

Continued authorization status during the three-year cycle between site visits is dependent on the annual submission by the facility of a self-assessment and status confirmation form which has been completed to the satisfaction of the Committee. (Refer to Appendix III: Self-Assessment and Status Confirmation Form).

H. SALE OF A FACILITY

Where an authorized facility is sold, both the vendor and the purchaser have an obligation to advise the Committee that the sale is taking place. When a facility is sold, the authorization status for that facility will normally end within 60 calendar days of the sale, and the new owner must therefore apply for a site visit and authorization as soon as possible after purchasing a facility. In circumstances where the Committee is satisfied that the sale of the facility does not require a new authorization process to take place (e.g. where the sale of the facility is from a dentist to the dentist's holding company), the Committee may confirm that the existing authorization status for the facility will remain in effect despite the sale of the facility.

CHAPTER 4

SAMPLE FORMS

The practice of dentistry involves the exercise of professional judgment in each particular situation, and flexibility is necessary when it comes to keeping clinical records. To that end, each practitioner may determine the format and content of his/her own clinical records. Dentists should, however, keep clinical records that, at a minimum, contain the information recommended in the forms provided in these Standards.

The CDSBC does not represent that the forms provided in these Standards are adequate, sufficient or appropriate, and cannot accept any responsibility for them in the event of a claim by a patient against a dentist or anyone else. Dentists must exercise their own professional judgment and seek appropriate professional advice, including legal advice, in determining what practices and procedures they will employ in their facilities to minimize the risk of patient complaints or claims.

The following sample forms have accordingly been provided as examples only.

CLINICAL RECORDS/FORMS

- PRE-SEDATION RECORD - MEDICAL HISTORY QUESTIONNAIRE/RISK ASSESSMENT
- PRE-SEDATION RECORD - PHYSICIAN'S ASSESSMENT
- PATIENT'S CONSENT FOR DENTAL TREATMENT AND DEEP SEDATION
- PRE-SEDATION PATIENT INSTRUCTIONS
- POST-SEDATION PATIENT INSTRUCTIONS
- DEEP SEDATION RECORD
- RESUSCITATION RECORD
- INCIDENT REPORT

EQUIPMENT RECORDS

- PRE-SEDATION CHECKLIST
- EQUIPMENT SPECIFICATIONS

PRE-SEDATION RECORD

Date: _____

Name: _____

Date of Birth: Y____/M_____/D_____ ☐ Male ☐ Female Phone: Res. _____ Work _____

Home address: _____

City/Province: _____ Postal Code: _____

Person to notify in case of emergency: _____ Rel.: _____ Phone:_____

If applicable, name of parent or legally authorized representative: _____

MEDICAL HISTORY QUESTIONNAIRE / RISK ASSESSMENT

Have you ever had a deep sedation? ☐ Yes ☐ No If yes, when?_____

Any complications? ☐ Yes ☐ No _____

Any history of familial sedation/anaesthetic complications? ☐ Yes ☐ No _____

Are you being treated for any medical condition at present or within the past two years? ☐ Yes ☐ No

If yes, please explain. _____

_____

When was your last visit to a physician? _____ Last complete medical examination? _____

Have you ever had a serious illness, accident, or required extensive medical care? ☐ Yes ☐ No If yes, please explain.

_____

Have you been hospitalized in the last ten years? ☐ Yes ☐ No If yes, please explain. _____

_____

Are you taking any prescription or non-prescription drugs? ☐ Yes ☐ No If yes, what is the drug(s), dose(s), and for how long? _____

Have you ever had a reaction to any drug(s) or been advised against taking any kind of medication? ☐ Yes ☐ No

If yes, please explain. _____

Do you have any sensitivities or allergies ? ☐ Yes ☐ No If yes, please explain. _____

_____

Do you have any history of family disease? ☐ Yes ☐ No If yes, please explain. _____

_____

Indicate which of the following you presently have or ever had.

	Yes	*No*		*Yes*	*No*		*Yes*	*No*
AIDS	☐	☐	Bleed easily	☐	☐	Congenital heart lesions	☐	☐
Alzheimers	☐	☐	Blood disorders	☐	☐	Congestive heart failure	☐	☐
Anemia	☐	☐	Blood in sputum	☐	☐	Cortisone/steroid therapy	☐	☐
Angina pectoris	☐	☐	Bronchitis	☐	☐	Diabetes	☐	☐
Arthritis/rheumatism	☐	☐	Cancer	☐	☐	Earaches (frequent)	☐	☐
Artificial heart valve	☐	☐	Cerebral palsy	☐	☐	Emphysema	☐	☐
Artificial joints	☐	☐	Changes in appetite	☐	☐	Epilepsy or seizures	☐	☐
Asthma	☐	☐	Chest pains	☐	☐	Fainting or dizzy spells	☐	☐
Balance problems	☐	☐	Circulation problems	☐	☐	Glandular disorders	☐	☐
Glaucoma	☐	☐	Hypertension	☐	☐	Psychiatric treatment	☐	☐
Headaches (severe)	☐	☐	Impaired vision	☐	☐	Radiation treatment/ chemotherapy	☐	☐
Head/neck injuries	☐	☐	Infective endocarditis	☐	☐	Rheumatic/scarlet fever	☐	☐
Hearing difficulties	☐	☐	Jaundice	☐	☐	Shortness of breath	☐	☐
Heart disease or attack	☐	☐	Kidney disease	☐	☐	Sickle cell disease	☐	☐
Heart murmur	☐	☐	Leukemia	☐	☐	Sinus trouble	☐	☐
Heart pacemaker	☐	☐	Liver disease	☐	☐			
Heart rhythm disorder	☐	☐	Lung disease	☐	☐	Stomach/intestinal		

	Yes	No		Yes	No		Yes	No
Heart surgery	☐	☐	Malignant hyperthermia	☐	☐	problems	☐	☐
Hemophilia	☐	☐	Medical implant	☐	☐	Stroke	☐	☐
Hepatitis A	☐	☐	Mental/nervous disorder	☐	☐	Temperature intolerance	☐	☐
Hepatitis B	☐	☐	Mitral valve prolapse	☐	☐	Thyroid disease	☐	☐
Hepatitis C	☐	☐	Nosebleeds (frequent)	☐	☐	Tuberculosis	☐	☐
Herpes	☐	☐	Organ transplant	☐	☐	Ulcers	☐	☐
High/low blood pressure	☐	☐	Persistent cough	☐	☐	Sexually tansmitted disease	☐	☐
Hodgkin's disease	☐	☐	Pulmonary edema	☐	☐	Weight gain/loss	☐	☐
Hyper(hypo) glycemia	☐	☐	Positive testing for HIV	☐	☐	Other	☐	☐

Do you smoke or use other forms of tobacco? ☐ Yes ☐ No _____

Do you have a history of alcohol and/or drug use or abuse? ☐ Yes ☐ No _____

Have you received treatment for alcohol or drug use or abuse?` ☐ Yes ☐ No _____

Do you currently have, or have you had in the past, any disease, condition or problem not listed? ☐ Yes ☐ No __

If yes, please explain. _____

Is there any problem or medical condition that you wish to discuss in private only? ☐ Yes ☐ No

WOMEN ONLY: Are you pregnant or suspect you might be? ☐ Yes ☐ No Anticipated delivery date?_____

Are you breast feeding? ☐ Yes ☐ No_____

Are you taking any birth control pills? ☐ Yes ☐ No _____

NOTE: IT IS IMPORTANT THAT ANY CHANGES IN YOUR HEALTH STATUS BE REPORTED TO OUR OFFICE.

I confirm that all of the medical and dental information provided above is true to the best of my knowledge, and I have not omitted any information. I also consent to my physician being contacted if necessary to obtain any information that is required for my dental care.

Signature _____ Date _____

☐ *Patient* ☐ *Parent* ☐ *Legally Authorized Representative*

Reviewed by dentist _____ Date_____

PRE-SEDATION RECORD

PHYSICIAN'S ASSESSMENT

Dear Doctor,

Your patient is scheduled for dental treatment under intravenous sedation. Please complete this history and physical examination form, and return it to our office by _____. If you have any questions, please call. Thank you for your assistance.

_____

Signature of Dentist

Patient's Name _____ Date of Birth _____ Phone _____

Address _____

City/Province _____ Postal Code_____

Planned Dental Treatment _____

_____

ALLERGIES	
MEDICATION	
FUNCTIONAL INQUIRY	Cardiac
	Respiratory
	Other
PAST ILLNESS	Anaesthesia Experience
	Other
FAMILY HISTORY	Anaesthesia Problems
	Other
PHYSICAL EXAMINATION	General Appearance
	B/P _____ P. _____ R. _____ Wt. _____ Ht. _____
	Head, Neck and Intraoral
	Heart
	Lungs
	Abdomen
	Skeletal
	CNS
	Laboratory Tests
ASA CLASSIFICATION	I II III IV V E

Date _____ Physician's Signature _____

PATIENT'S CONSENT TO DENTAL TREATMENT AND DEEP SEDATION

PROCEDURE(S) _____

_____

_____

OPERATING DENTIST _____

PRACTITIONER ADMINISTERING DEEP SEDATION _____

I consent to the procedure(s) noted above being performed on me. I acknowledge that the procedure(s), its implications and possible complications have been explained to me, along with the alternatives, including not having any treatment. I understand the procedure will require deep sedation and I consent to the administration of this by the above-named practitioner administering the deep sedation. I also understand that during the course of any treatment, unforeseen circumstances may arise that could necessitate or make it advisable for an additional or alternative procedure to be performed, which I also consent to being performed on me.

Signature _____ Date _____

☐ *Patient* ☐ *Parent* ☐ *Legally Authorized Representative*

Witness _____ Date _____

I acknowledge receiving a copy of the pre- and post-operative instructions, which have been explained to me. I understand all of the advice given to me by my dentist. After my discharge, I will notify my doctor and dentist if I experience any acute pain, heavy bleeding from the surgical site, respiratory problems, or any other post-operative problems.

Signature _____ Date _____

☐ *Patient* ☐ *Parent* ☐ *Legally Authorized Representative*

Witness _____ Date _____

PRE-SEDATION PATIENT INSTRUCTIONS

For the safe treatment of the patient, the following pre-sedation instructions must be followed very carefully.

FOOD AND BEVERAGES

- It is essential that the stomach be empty at the time of the anaesthetic appointment.
- Do not eat any solid foods after midnight the night before the anaesthetic appointment.
- Do not drink anything, even water, for at least three hours before the anaesthetic appointment.
- Do not drink any alcohol within 24 hours of the treatment.

MEDICATIONS

- Regular medication should be taken pre-operatively and in that case, a sip of water is permitted.

CLOTHING / CONTACT LENSES

- Wear loose casual clothing for the appointment (e.g., short sleeve shirt). Female patients should wear slacks.
- Do not wear jewelry, hairpins or make-up.
- Remove contact lenses.

SMOKING

- Refrain from smoking before the treatment.

TRANSPORTATION

- You should not drive yourself home or operate any vehicle or machinery for 24 hours after sedation. A responsible adult should pick you up after the appointment and take you home.
- Public transportation is not recommended.

CHANGE IN HEALTH STATUS

- If your general health deteriorates (e.g., cold, cough, fever, etc.), contact the dental office before the day of the appointment. If in any doubt, please contact the office to discuss any change in health status.

If you have any questions, please do not hesitate to ask them. It is important that you understand all of the implications of this treatment.

POST-SEDATION PATIENT INSTRUCTIONS

(To be given to the patient before the sedation and to a responsible adult picking up the patient after the sedation)

> Following deep sedation, 24 to 36 hours are usually required for the full effects of the drugs to wear off. It is essential that you and the adult picking you up follow these instructions.

DISCHARGE FROM OFFICE

- The patient must be discharged into the care of a responsible adult who can accompany him/her home.
- Arrangements should be made to have a responsible adult remain with the patient for the balance of the day and during the night.

TRANSPORTATION FROM OFFICE

- Private automobile is preferred; public transportation is not recommended.

FOOD AND BEVERAGES

- Clear liquids are advised for up to 6 hours. Most people can tolerate solids 1 – 2 hours after sedation and this may help post-operative nausea.
- Do not drink alcohol in any form for 48 hours.

MEDICATIONS

- Resume normal medication as directed by your physician after the appointment.

ACTIVITY RESTRICTIONS

- Do not operate motor vehicles, boats, power tools or machinery for at least 24 hours, or longer if any drowsiness or dizziness persists.
- Those seeking to operate an aircraft following deep sedation should seek guidance from applicable aviation authorities and/or their employers (where applicable).

PROBLEMS

- If you experience any acute pain, heavy bleeding from the surgical site, respiratory problems, or any other post-operative problem, please notify the dental office.

DEEP SEDATION RECORD

Patient' Name _____ Age _____ Date _____

Weight: _____ kg/lbs Fluids type/total: _____ NPO since: _____

Allergies _____ Present Medications _____

Preoperative Health conditions: _____ ASA Classification: I II III IV V E

IV: Angio or BF Gauge _____ Site: R L DOH ACF FA Other _____

Monitors: ❑ Pulse Oximeter ❑ BP ❑ ECG ❑ Pt Stethoscope
❑ Capnograph ❑ Other _____

Pre-operative

Time	Medication	Dose	N_2O	SpO_2	Pulse

TIME:

Start time _____ am/pm

Start procedure: _____ am/pm

End procedure _____ am/pm

End time _____am/pm SpO_2 x

To recovery room _____am/pm BP ⅄ Y

DISCHARGE CRITERIA HR ●

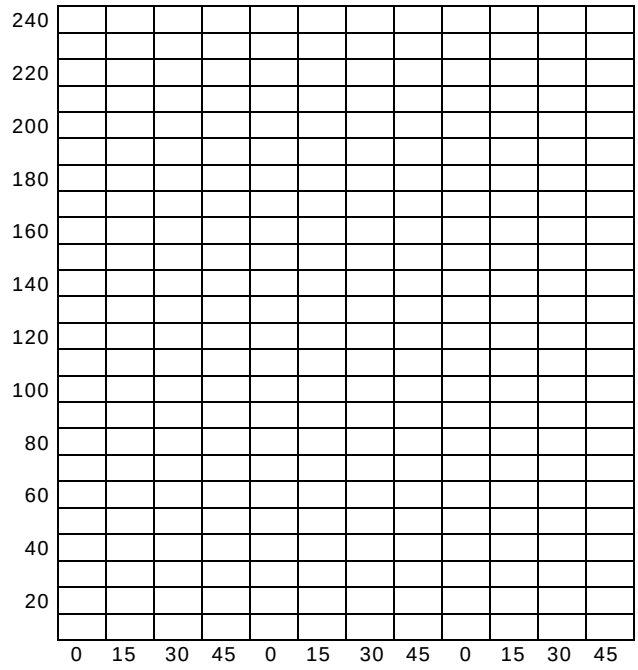
Alert and oriented: ❑ yes ❑ no End Tidal CO_2 O

Vital signs stable: ❑yes ❑ no To recovery ↓

Discharge time _____ am/pm

Post Op instructions: ❑yes ❑ no

Side effects:
_____



Discharged to: ❑ mom ❑ dad ❑ other: _____

NOTES

_____

_____

Dentist Signature _____

RESUSCITATION RECORD

Name _____ Time of Arrest _____ Time Resuscitation Stopped _____

Arrest Condition_____

_____

RESPIRATORY MANAGEMENT	CARDIAC MANAGEMENT
Mouth to Mouth ☐ Yes ☐ No Bag and Mask ☐ Yes ☐ No Intubated ☐ Yes ☐ No Extubated by _____ at _____ hrs. Type of tube: _____ On ventilator: ☐ Yes ☐ No Type: _____ XXXX _____ T.V. _____O% _____	(a) External Massage ☐ Yes ☐ No Initiated at: _____ Duration: _____ Pupil Reaction: _____ (b) ECG Interpretation _____ _____ (c) Defibrillation: Time Watt/Sec Post Defibrillation ECG Interpretation _____

Time	R	L

BLOOD GASES

PH	PO_2	PCO_2	HCO2	B.E.

IV SOLUTION / ADDITIVES	IV Amt. Started ml	Time Stop-ped	Amt. Remai ning	Total I.V. In	Output				Site of IV Site of IV Cannula
					Time	Urine	Blood	Other	

Time	Medication Route	Given By

Total during resuscitation _____ Total _____

Attending Physician _____

INCIDENT REPORT

Date of Incident: _____ Report Date: _____

Name of Facility: _____ Phone Number: _____
Address:_____
City/Province: _____ Postal Code: _____

Facility Owner(s): _____ Phone Number: _____
Address:_____
City/Province: _____ Postal Code: _____

Operating Dentist: _____ Phone Number: _____
Address:_____
City/Province: _____ Postal Code: _____

Practitioner Administering Deep Sedation: _____ Phone Number: _____
Address:_____
City/Province: _____ Postal Code: _____

Patient: _____ Age ____ Sex ___ Phone Number: _____
Address:_____
City/Province: _____ Postal Code: _____

Description of complication, patient status, and disposition of incident:

Description of present patient status:

Forward report to:
Registrar's Office, College of Dental Surgeons of BC
500 - 1765 West 8th Avenue, Vancouver, BC V6J 5C6

PRE-SEDATION CHECKLIST

A. GAS PIPELINES

1 ___ Secure connections between terminal units (outlets) and anaesthesia

B. ANAESTHETIC MACHINE

1 ___ Line oxygen (40-60 psi) (275-415kPa)
2 ___ Nitrous oxide (40-60 psi) (275-415kpa)
3 ___ Adequate reserve cylinder oxygen pressure
4 ___ Adequate reserve cylinder nitrous oxide content
5 ___ Check for leaks and turn on cylinders
6 ___ Flow meter function of oxygen and nitrous oxide over the working range

C. VAPORIZER

1 ___ Vaporizer filled
2 ___ Filling ports pin-indexed and closed
3 ___ Ensure "on/off" function and turn off
4 ___ Functioning oxygen bypass (flush)
5 ___ Functioning oxygen fail safe
6 ___ Oxygen analyzer calibrated and turned on
7 ___ Functioning mixer (oxygen and nitrous oxide where available)
8 ___ Functioning common fresh gas outlet

D. BREATHING CIRCUIT

1 ___ Correct assembly of circuit to be used
2 ___ Patient circuit connected to common fresh gas outlet
3 ___ Oxygen flowmeter turned on
4 ___ Check for exit of fresh gas face mask
5 ___ Pressurize. Check for leaks and integrity of circuit (e.g. Pethick test for co-axial)
6 ___ Functioning high pressure relief valve
7 ___ Unidirectional valves and soda lime
8 ___ Functioning adjustable pressure relief valve

E. VACUUM SYSTEM

1 ___ Suction adequate

F. SCAVENGING SYSTEM

1 ___ Correctly connected to patient circuit

EQUIPMENT SPECIFICATIONS

ITEM	
MANUFACTURER	
MODEL	SERIAL NUMBER
VENDOR	OWNER
NORMAL LOCATION	
DATE IN SERVICE	WARRANTY EXPIRES
TYPE OF APPROVAL LABEL	RISK CLASS (3,2,2G, 1) or APPLIED PART TYPE (B, BF, CF)
OPERATING MANUALS (LOCATION)	SERVICE LOG BOOK (LOCATION)
INSPECTION REQUIREMENTS	
PERFORMANCE CHECKS	
PREVENTIVE MAINTENANCE REQUIREMENTS	

OTHER COMMENTS

CSA CONTACT INFORMATION

Copies of equipment standards may be obtained by contacting:

CANADIAN STANDARDS ASSOCIATION INTERNATIONAL
13799 Commerce Parkway
Richmond, BC V6V 2N9

Website Address: www.csa-international.org
Telephone Number: 604-273-4581

INSPECTION OF MEDICAL DEVICES

The medical devices in a non-hospital deep sedation facility must be inspected and maintained at a standard equivalent to that used in hospital facilities in British Columbia. The following table shows a list of medical devices typically found in a dental deep sedation facility, along with the required inspection procedures and frequencies. In addition to regular inspection procedures, all equipment must be maintained as indicated in the manufacturer's manual. The registered owner(s) of the facility must be notified by the practitioner administering the deep sedation of any problems in the facility in order that corrective action can be undertaken immediately.

DEVICE	PROCEDURE	FREQUENCY
Anaesthetic Gas Machine (Nitrous Oxide Delivery Unit)	Full inspection	Two times per year
ECG Monitor	Full inspection	Annually
Non-Invasive Blood Pressure Monitor	Full inspection	Annually
Pulse Oximeter	Full inspection	Annually
Defibrillator	Full inspection	Two times per year
	Performance check	Once per week
	Visual check	Once per day
Temperature Monitor	Generic testing	Annually

COLLEGE OF DENTAL SURGEONS
OF BRITISH COLUMBIA

ANNUAL FACILITY SELF ASSESSMENT AND STATUS CONFIRMATION

NON-HOSPITAL DEEP SEDATION FACILITIES

NAME OF FACILITY: _____

DIRECTOR / OWNER OF FACILITY: _____

Date: _____

Continued accreditation during the three year cycle between site visits is dependent upon confirmation of a successful annual "in-office" assessment of the facility. Please complete the attached survey and return to the College of Dental Surgeons of BC with copies of the following:

- Current BLS (CPR LEVEL C) certificates
- Forms for inspection of medical devices since last accreditation survey

Due Date: _____

ABBREVIATIONS

A	=	Acceptable
I	=	Needs Improvement
U	=	Unacceptable
NT	=	Not Tested
NA	=	Not Applicable

FACILITY STAFF QUALIFICATIONS

Person providing sedation, if not the operating dentist:

Name _____ ☐ BLS ☐ ACLS

☐ Certified Specialist ☐ General Practitioner

Name _____ ☐ BLS ☐ ACLS

☐ Certified Specialist ☐ General Practitioner

Operating Dentist(s)

Name _____ ☐ BLS ☐ ACLS

Name _____ ☐ BLS ☐ ACLS

Deep Sedation Assistant

Name _____ ☐ BLS

☐ Registered Nurse ☐ Dentist ☐ Physician ☐ OMAAP

Name _____ ☐ BLS

☐ Registered Nurse ☐ Dentist ☐ Physician ☐ OMAAP

Operative Assistant(s)

Name _____ ☐ BLS

Name _____ ☐ BLS

Name _____ ☐ BLS

Recovery Supervisor(s)

Name _____ ☐ BLS ☐ ACLS

☐ Registered Nurse ☐ Dentist ☐ Physician ☐ OMAAP

Name _____ ☐ BLS ☐ ACLS

☐ Registered Nurse ☐ Dentist ☐ Physician ☐ OMAAP

PHYSICAL FACILITIES

Layout and Design

SPACE	A	I	U	COMMENTS	ACTION TAKEN
Reception / waiting area					
Administrative activities					
Pre-operative evaluation / preparation for deep sedation					
Operative / surgical treatment area					
Post-sedation recovery area					
Instrument preparation / sterilization area					
Storage					
Staff activities					

OPERATING AREA	A	I	U		
Size					
Placement of equipment					
Lighting					
Electrical supply					
Oxygen					
Suction					
Chair or Table					
Range of movement					
Adjustable headrest					
Padding					
IV provisions					
Grounded					

RECOVERY AREA	A	I	U		
Separate area					
Patient visibility					
Lighting					
Electrical supply					
Oxygen					
Suction					

Utilities and Backup Systems

ELECTRICAL SUPPLY	A	I	U	COMMENTS	ACTION TAKEN
Number of outlets					
Condition of receptacles					
Backup power					

LIGHTING (Operating/ Recovery Areas)	A	I	U		
Amount					
Color					
Backup lighting					

Utilities and Backup Systems

SUCTION	A	I	U		
Source					
Location ☐ In suite ☐ Outside suite					
Locked access					
Location of key					
Cannot be turned off by accident					
Backup suction					

GENERAL FACILITY OPERATING REQUIREMENTS

INFECTION CONTROL	A	I	U	COMMENTS	ACTION TAKEN
Facilities					
Equipment					
Procedures					
Disposal of sharps					
Disposal of other materials					

DRUG CONTROL	A	I	U	COMMENTS	ACTION TAKEN
Appropriate storage					
Identification					
Narcotics locked					

SAFETY REQUIREMENTS	A	I	U		
Posted where appropriate					
Safety plans for non-medical emergencies:					
☐ Electrical failure					
☐ Fire					
☐ Earthquake					
MEDICAL EMERGENCIES	**A**	**I**	**U**		
Written protocol ☐ Procedures ☐ Staff duties					
Emergency equipment organized and available					
Emergency phone numbers posted					
Operational plan to transport anesthetized patient from facility					

DEEP SEDATION ARMAMENTARIUM

Deep Sedation Delivery System

ANAESTHETIC GAS MACHINE #1	A	I	U	COMMENTS	ACTION TAKEN
Condition					
Manufacturer					
Serial #					
CSA approved Yes No					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

ANAESTHETIC GAS MACHINE #2	A	I	U		
Condition					
Manufacturer					
Serial #					
CSA approved Yes No					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

GASES / PIPING / CONDUCTING SYSTEMS	A	I	U		
Condition					
Safety indexing systems					
Reserve supply oxygen					
Pre-sedation checklist					
Gas storage ☐ In suite ☐ Outside suite ☐ Locked ☐ Location of key					
Turned on/off by					
Alarm / manifold system ☐ Present ☐ Not present					
Scavenging system					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

Physiological Monitoring Equipment

STETHOSCOPES	A	I	U	COMMENTS	ACTION TAKEN
☐ Precordial					
☐ Esophageal					
☐ Paratracheal					

BLOOD PRESSURE MONITOR	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

ECG #1	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

ECG #2	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

TEMPERATURE MONITOR	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

PULSE OXIMETER #1	A	I	U	COMMENTS	ACTION TAKEN
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

PULSE OXIMETER #2	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

OXYGEN GAS ANALYZER	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

BATTERY POWERED PHYSIOLOGICAL MONITOR	A	I	U		
☐ ECG ☐ Pulse oximeter ☐ Other					
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

OTHER EQUIPMENT	A	I	U		
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Routine maintenance					
Last service ___/___					
Log book					

Essential Airway Equipment

BAG & MASK	A	I	U	COMMENTS	ACTION TAKEN
Airways ☐ Oral ☐ Nasopharyngeal					
Ventilation apparatus with adapter to fit tracheal tube					
Facemasks					
Oxygen source					

SUCTION APPARATUS	A	I	U		
Suction source					
Tonsil suction					
Suction catheters					
Nasogastric tubes					

INTUBATION	A	I	U		
Laryngoscope (2)					
Preferred blades					
Spare batteries/bulbs					
Endotracheal tubes ☐ Appropriate sizes ☐ Cuffed ☐ Non-cuffed					
Syringe for inflating cuff					
Lubricants					
Stylettes					
Forceps (Magill)					
Emergency airway adjuncts ☐ Tracheotomy set ☐ Cricothyrotomy set ☐ Laryngeal mask ☐ Lighted stylette					

Deep Sedation Drugs and Supplies

SEDATIVE DRUGS	A	I	U	COMMENTS	ACTION TAKEN
Quantity					
Identification					
Storage					
Drug inventory record					
Present				*Expiry*	
☐ Brietal				___/___	
☐ Pentothal				___/___	
☐ Atropine				___/___	
☐ Succinycholine				___/___	
☐ Halothane				___/___	
☐ Isofluorane				___/___	
☐ Ethrane				___/___	
☐ Propofol				___/___	
☐ Other				___/___	
☐ Other				___/___	

VENIPUNCTURE	A	I	U		
Cannulas needles					
IV Catheters					
Administration sets ☐ Adult ☐ Pediatric					
Intravenous stand					
Intravenous solutions				*Expiry*	
☐ D_5W				___/___	
☐ Normal saline				___/___	
☐ D_5NS				___/___	
☐ Other				___/___	
☐ Other				___/___	

OTHER SUPPLIES	A	I	U		
Needles					
Syringes					
ECG leads / electrodes					
Defibrillation paste / pads					
Sponges / tape / etc.					
Throat packs					
Lubricants					
Sharps disposal container					
Padding (e.g., pillow)					
Other					

Emergency Armamentarium in Addition to Essential Airway Equipment

DEFIBRILLATOR	A	I	U	COMMENTS	ACTION TAKEN
Synchronous cardioversion					
Condition					
Manufacturer					
Serial #					
Last inspection ___/___					
Battery testing in place					
Frequency of clinic checks					
Last check ___/___					
Routine maintenance					
Last service ___/___					
Log book					

EMERGENCY DRUGS	A	I	U		
Quantity					
Identification					
Storage					
Drug inventory record					

Essential Drugs Qty.				***Expiry***	
☐ Adenosine				___/___	
☐ Atropine				___/___	
☐ Benadryl				___/___	
☐ Dantrolene sodium *(8-12 ampoules, enough for 2 mg/kg dose) if triggering agent used)*				___/___	
☐ Epinephrine				___/___	
☐ Flumazenil, *(if benzodiazepines are being used)*				___/___	
☐ Hydrocortisone or Solumedrol				___/___ ___/___	
☐ Lidocaine				___/___	
☐ Naloxone *(if narcotics are being used)*				___/___	
☐ Nitroglycerine				___/___	
☐ Succinycholine				___/___	
☐ Ventolin				___/___	
Highly Recommended Qty.				***Expiry***	
☐ Amiodarone				___/___	
☐ Digoxin				___/___	
☐ Ephedrine				___/___	
☐ Furosemide				___/___	
☐ Hydralazine				___/___	
☐ Isoproterenol				___/___	
☐ Labetalol hydrochloride				___/___	
☐ Morphine				___/___	
☐ Phenylephrine				___/___	
☐ Procainamide				___/___	
☐ Propranolol				___/___	
☐ Sodium bicarbonate				___/___	
☐ Verapamil				___/___	

CLINICAL FORMS/RECORDS

Patient Information Forms

INFORMED CONSENT	**A**	**I**	**U**		
Procedure					
Sedation					
Sedation instructions					

PRE SEDATION INSTRUCTIONS	**A**	**I**	**U**		
Written					
☐ Pre ☐ Post					

Sedation Records

PRE-SEDATION RECORD	A	I	U		
Vital statistics					
Medical history questionnaire					
Physical examination					

SEDATION RECORD	A	I	U		
Administration					
Post sedation recovery					

RESUSCITATION RECORD	A	I	U		
With emergency equipment					

INCIDENT REPORT	A	I	U		
Available					