College of Dental Surgeons of Alberta

Standard of Practice:

Minimal and Moderate Sedation

Deep Sedation and General Anaesthesia

in

Non-Hospital Dental Practice

January 2021

The Alberta Dental Association and College is now operating under the name College of Dental Surgeons of Alberta. This name will become official when Alberta's Health Professions Act is amended.

Introduction

This document of the College of Dental Surgeons of Alberta (CDSA), the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice,* is the standard of practice for administration of sedation and applies to all regulated members administering sedation. *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* replaces the former *Standard of Practice: Dental Facilities Accreditation* and is the standard of practice for administration of sedation with respect to dental surgical services in Alberta *in accordance with Section 4 of the Dental Surgical Facility Accreditation Regulation*. Contravention of the *Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards may constitute unprofessional conduct under the *Health Professions Act*.

The *Health Professions Act* requires that a Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF) must be accredited before a regulated member (dentist) provides Dental Surgical Services. The *Health Professions Act*, the *Health Facilities Act*, the *Dentists Profession Regulation* and the *Bylaws* of the CDSA establish the overall regulatory framework and authority regarding Dental Surgical Facilities. Under this authority, the Dental Facility Accreditation Committee (DFAC) was established to uphold and enforce the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards. The *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice Standards* and the College of Physicians and Surgeons of Alberta, *Non-Hospital Surgical Facility Standards and Guidelines* address accreditation requirements under the *Health Professions Act*, Schedule 7, Profession of Dentists, section 12(1).

The *Health Facilities Act* establishes the overall regulatory framework for surgical facilities that applies to both dentists and physicians. This Act defines "insured surgical services" and also states that in order to operate a Dental Surgical Facility at which insured surgical services are provided, the Dental Surgical Facility must be accredited; have an agreement with a Regional Health Authority; and be designated by the Minister.

Restricted activities that can be performed by regulated members are outlined in the Standard of Practice: *Restricted Activities*. With respect to anaesthetics, section C(k) authorizes all regulated members to prescribe or administer nitrous oxide for the purpose of anaesthesia or sedation. Section D of the Standard of Practice requires that, only regulated members who successfully complete an educational program in the administration of deep sedation and general anaesthesia approved by the Council and have been authorized by the Council may prescribe and administer anesthesia gases, other than nitrous oxide, for the purpose of anaesthesia and sedation.

College of Dental Surgeons of Alberta (CDSA) regulated members (General Practitioner [Dentist], Endodontist, Oral and Maxillofacial Surgeon, Orthodontist and Dentofacial Orthopedist, Pediatric Dentist, Periodontist, Prosthodontist, Oral Medicine and Pathology, Oral and Maxillofacial Radiologist and Public Health Dentists) must register annually for sedation.

Authorized Dentists by the College of Dental Surgeons of Alberta (CDSA) must hold a current College of Dental Surgeons of Alberta (CDSA) permit for Moderate Sedation, Deep Sedation/General Anaesthesia.

Defined terms are used throughout the *Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards. Reference should be made to Appendix A (Definitions) in the Minimal Sedation and Moderate Sedation and Appendix D (Definitions) in the Deep Sedation and General Anaesthesia for reference to these defined terms.

Defined terms used throughout the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* are defined terms whether the term is capitalized or not and whether the term is used in the singular or plural form.

American Society of Anesthesiologists Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia*

	Minimal Sedation Anxiolysis	*Moderate Sedation/ Analgesia ("Conscious Sedation")*	*Deep Sedation/ Analgesia*	*General Anesthesia*
Responsiveness	Normal response to verbal stimulation	Purposeful** response to verbal or tactile stimulation	Purposeful** response following repeated or painful stimulation	Unarousable even with painful stimulus
Airway	Unaffected	No intervention required	Intervention may be required	Intervention often required
Spontaneous Ventilation	Unaffected	Adequate	May be inadequate	Frequently inadequate
Cardiovascular Function	Unaffected	Usually maintained	Usually maintained	May be impaired

Minimal Sedation (Anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.

Moderate Sedation/Analgesia ("Conscious Sedation") is a drug-induced depression of consciousness during which patients respond purposefully** to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

* Monitored Anesthesia Care ("MAC") does not describe the continuum of depth of sedation, rather it describes "a specific anesthesia service in which an anesthesiologist has been requested to participate in the care of a patient undergoing a diagnostic or therapeutic procedure."

** Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused 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 Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, 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.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue*** patients whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation/Analgesia ("Conscious Sedation") should be able to rescue*** patients who enter a state of Deep Sedation/Analgesia, while those administering Deep Sedation/Analgesia should be able to rescue*** patients who enter a state of General Anesthesia.

** Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

*** Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia and hypotension) and returns the patient to the originally intended level of sedation. It is not appropriate to continue the procedure at an unintended level of sedation.

https://www.asahq.org/standards-and-guidelines/continuum-of-depth-of-sedation-definition-of-general-anesthesia-and-levels-of-sedationanalgesia

CDSA

College of Dental Surgeons of Alberta

Minimal Sedation and Moderate Sedation

Table of Contents

Minimal Sedation and Moderate Sedation

Approved techniques for minimal and moderate sedation are:

1. Inhalation of nitrous oxide and oxygen.
2. Oral administration of a single dose of a single benzodiazepine drug with one supplemental dose.
3. Oral administration of a single dose of a single benzodiazepine drug with nitrous oxide and oxygen and one supplemental dose.
4. Parenteral sedation (intravenous only). Hand bolus (injecting sedation medication(s) from a hand-held medication syringe into a freely running intravenous solution) is the only administration technique for intravenous sedation that may be used.

Regulated members must register annually for sedation and hold a current CDSA permit for Moderate Sedation.

Regulated members may only use techniques and drugs for minimal and moderate sedation that are approved by the CDSA. Propofol, Remifentanil and Ketamine may not be used for minimal and moderate sedation.

Regulated members must maintain current certification in BLS, ACLS, PALS and Airway Management as applicable to the technique of sedation utilized by regulated member. If certification expires the regulated member may not administer any form of sedation.

All dental facilities where sedation services are provided must comply with requirements of Appendix D – Nitrous Oxide, Appendix E – Emergency Drugs and Equipment for Minimal and Moderate Sedation, Appendix F – Emergency Drugs and Equipment for Minimal to Moderate Sedation (Parenteral IV Sedation) and Appendix J – Drugs.

Regulated members must not sedate beyond their training for any technique utilized.

All dental facilities where sedation services are provided must conduct and document mock emergency drills every six months. See Appendix G – Mock Emergency Drills.

Unforeseen events are defined as untoward, undesirable, and usually unanticipated events or outcomes that caused harm or risk of harm to a patient, employee or visitor. An unforeseen event may or may not be a result of a deviation from the normal process of care. Unforeseen events are events related to patient status or outcomes that are considered significant indicators of health and safety factors for patient.

Unforeseen Event(s) must be documented, monitored and reported for safety, quality assurance and mandatory reporting purposes to the CDSA.

In the event of an Unforeseen Event, a report must be made via telephone (780-432-1012) to the CDSA within one business day of an Unforeseen Event or becoming aware of an Unforeseen Event.

An Unforeseen Event Report (UER) sample form is found in Appendix H – Unforeseen Event Report (UER), Mandatory Notification. This form must be completed and submitted online via the members' website within two weeks of the telephone reporting to the CDSA.

A current, clearly recorded medical history must be completed for each patient prior to the administration of any form of sedation, according to the CDSA *Standard of Practice: Patient Records*.

A time-oriented anaesthesia record must be completed for every patient undergoing sedation.

A pre-operative safety process must occur, including verification of the identity of the patient, the correct procedure, and documentation of consent and communication of other pertinent information including medication, allergies, significant health conditions and anticipated problems.

1.0 Nitrous Oxide Sedation for patients 12 years of age and older

Pre-Operative

1.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with nitrous oxide training or obtain a letter from their dentistry program attesting to their training in nitrous oxide sedation. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

1.2 Patient Selection

Patients must have a BMI less than 40, and three or fewer controlled comorbid conditions and be ASA Classification 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients with a BMI less than 45 in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Intra-Operative

1.3 Staffing

A regulated member must administer the Nitrous Oxide. A regulated member or a sedation team member must be in continuous attendance and direct observation while the patient is sedated and until such time that the recovery phase commences.

1.4 Monitoring

Must include continuous pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

1.5 Recovery

A regulated member should administer 100% oxygen for a minimum of 5 minutes after Nitrous Oxide discontinued. The regulated member or a sedation team member must be in continuous attendance and direct observation of the patient until the recovery phase commences.

1.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patient must meet objective discharge criteria having returned to pre-sedation level of consciousness.

2.0 Nitrous Oxide Sedation for patients under 12 years of age

Pre-Operative

2.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with nitrous oxide training or obtain a letter from their dentistry program attesting to their training in nitrous oxide sedation. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

2.2 Patient Selection

Patients must be at least 2 years of age. Patients must have a BMI between the 97th percentile and the 3rd percentile (see Appendix C – Growth Chart for Boys and Girls 2 – 9) and three or fewer well controlled comorbid conditions and be ASA 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients who fall outside the above BMI parameters in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Intra-Operative

2.3 Staffing

A regulated member must administer the Nitrous Oxide. A regulated member or a sedation team member must be in continuous attendance and direct observation while the patient is sedated and until such time that the recovery phase commences.

2.4 Monitoring

Must include continuous pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

2.5 Recovery

A regulated member should administer 100% oxygen for a minimum of 5 minutes after Nitrous Oxide discontinued. The regulated member or a sedation team member must be in continuous attendance and direct observation of the patient until the recovery phase commences.

2.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patient must meet objective discharge criteria having returned to pre-sedation level of consciousness.

3.0 Oral Sedation for patients 12 years of age and older

Pre-Operative

3.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with oral sedation training or obtain a letter from their dentistry program attesting to their training in oral sedation. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

3.2 Patient Selection

Patients must have a BMI less than 40 and be ASA Classification 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients with a BMI less than 45 in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

3.3 Staffing

A regulated member must administer the sedative dose in the dental office, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics, etc.). The regulated member or a sedation team member must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. A regulated member or a sedation team member must be in continuous attendance until the recovery phase commences.

3.4 Monitoring

Monitors must be applied when initial sedation becomes apparent. These must include continuous

pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour and must be continued until the recovery phase commences. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

3.5 Recovery

Patients must wait a minimum of 60 minutes after oral sedation medication is administered before discharge. The regulated member or a sedation team member must be in continuous attendance and direct observation of the patient until the recovery phase commences. Monitoring must be continued until patient is in minimal sedative state.

3.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

4.0 Oral Sedation for patients under 12 years of age

Pre-Operative

4.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with oral sedation training or obtain a letter from their dentistry program attesting to their training in oral sedation which included oral sedation training for patients under 12 years of age. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA. The regulated member must have current PALS and an CDSA approved Airway Management course with a pediatric component. See Appendix K – Competence Education.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

4.2 Patient Selection

Patients must be at least 2 years of age. Patients must have a BMI between the 97th percentile and the 3rd percentile (see Appendix C – Growth Chart for Boys and Girls 2 – 9) and three or fewer well controlled comorbid conditions and be ASA 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients who fall outside the above BMI parameters in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
4 hours	After ingestion of breast milk (no additions are allowed to pumped breast milk)
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

4.3 Staffing

A regulated member must administer the sedative dose in the dental office, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics, etc.). The regulated member or a sedation team member must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. The intra-operative phase requires the regulated member and a sedation team member to be present. A regulated member or a sedation team member must be in continuous attendance until the recovery phase commences.

4.4 Monitoring

Monitors must be applied when initial sedation becomes apparent. These must include continuous pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour and must be continued until the recovery phase commences. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

4.5 Recovery

Patients must wait a minimum of 60 minutes after oral sedation medication is administered before discharge. The regulated member or a sedation team member must be in continuous attendance and direct observation of the patient until the recovery phase commences. Monitoring must be continued until patient is in minimal sedative state.

4.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

5.0 Oral Sedation with Nitrous Oxide Sedation for patients 12 years of age and older

Pre-Operative

5.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with oral sedation and nitrous oxide training (Authorized Dentist) or obtain a letter from their dentistry program attesting to their training in oral and nitrous oxide sedation. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA. The regulated member must also hold a current CDSA permit for this sedation technique.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

5.2 Patient Selection

Patients must have a BMI less than 40 and be ASA Classification 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients with a BMI less than 45 in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

5.3 Staffing

A regulated member must administer the sedative dose in the dental office, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics, etc.). The regulated member or a sedation team member must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. The intra-operative phase requires the regulated member and a sedation team member to be present. A third sedation team member must be available to support the intra-operative phase.

A regulated member or a sedation team member must be in continuous attendance until the recovery phase commences.

5.4 Monitoring

Monitors must be applied when initial sedation becomes apparent. These must include continuous pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour and must be continued until the recovery phase commences. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

5.5 Recovery

A regulated member must administer 100% oxygen for a minimum of 5 minutes after Nitrous Oxide discontinued. Patients must wait a minimum of 60 minutes after oral medication is administered before discharge. The regulated member or a sedation team member must be in continuous attendance and direct observation of the patient until the recovery phase commences. Monitoring must be continued until patient is in minimal sedative state.

5.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

6.0 Oral Sedation with Nitrous Oxide Sedation for patients under 12 years of age

Pre-Operative

6.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with oral sedation and nitrous oxide training (Authorized Dentist) or obtain a letter from their dentistry program attesting to their training in oral and nitrous oxide sedation which included sedation training for patients under 12 years of age. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA. The regulated member must also hold a current CDSA permit for this sedation technique. The regulated member must have current PALS and an CDSA approved Airway Management course with a pediatric component. See Appendix K – Competence Education.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

6.2 Patient Selection

Patients must be at least 2 years of age. Patients must have a BMI between the 97th percentile and the 3rd percentile (see Appendix C – Growth Chart for Boys and Girls 2 – 9) and three or fewer well controlled comorbid conditions and be ASA 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear.

An Authorized Dentist may treat patients who fall outside the above BMI parameters in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

An Authorized Dentist may treat a patient with an ASA 4 Classification in an Accredited Dental Surgical Facility only if the patient's disease entity could not reasonably be expected to be affected adversely by the sedation or the proposed procedure.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
4 hours	After ingestion of breast milk (no additions are allowed to pumped breast milk)
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

6.3 Staffing

A regulated member must administer the sedative dose in the dental office, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics, etc.). The regulated member or a sedation monitor (see Appendix A – Definitions) must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. One of the sedation team members must be a sedation monitor and hold current sedation monitoring training. The intra-operative phase requires the regulated member and a sedation team member to be present. A third sedation team member must be available to support the intra-operative phase.

A regulated member or a sedation team member must be in continuous attendance until the recovery phase commences.

6.4 Monitoring

Monitors must be applied when initial sedation becomes apparent. These must include continuous pulse oximetry (SpO2), heart rate monitoring and visual monitoring of respiration rate and patient colour and must be continued until the recovery phase commences. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

6.5 Recovery

A regulated member must administer 100% oxygen for a minimum of 5 minutes after Nitrous Oxide discontinued. Patients must wait a minimum of 60 minutes after oral sedation medication is administered before discharge. The regulated member or a sedation monitor must be in continuous attendance and direct observation of the patient until the recovery phase commences. Monitoring must be continued until patient is in minimal sedative state.

6.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

7.0 Parenteral (intravenous only) Sedation for patients 12 years of age and older

Pre-Operative

7.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post-graduate dental program with parenteral sedation training (Authorized Dentist) or obtain a letter from their program attesting to their training in parenteral sedation. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA. The regulated member must also hold a current CDSA permit for this sedation technique. The regulated member must have current ACLS and an CDSA approved Airway Management course. See Appendix K – Competence Education.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

7.2 Patient Selection

Patients must have a BMI of 40 or less and be ASA Classification 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear. ASA 4 patients are not permitted to be sedated by a Regulated Member using this technique.

An Authorized Dentist member may treat patients with a BMI less than 45 in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

7.3 Staffing

A regulated member must administer the sedative dose in the operatory, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics, etc.). The regulated member and two sedation team members must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. One of the sedation team members must be a sedation monitor (see Appendix A – Definitions) and hold current sedation monitoring training. All three must be in continuous attendance and direct observation of the patient while the patient is sedated, during the intra-operative phase and until

such time that the recovery phase commences.

7.4 Monitoring

Must include continuous pulse oximetry (SpO2), heart rate monitoring by electrocardiogram (ECG) and blood pressure monitoring (NIBP). Must also include continuous end tidal carbon dioxide (ETCO2) monitoring or Electronic Precordial Stethoscope. The choice of method used to monitor respiration must be documented on the sedation record. Continuous visual monitoring of respiration rate/effort and patient skin colour must occur. Vital signs including SpO2, heart rate, NIBP and respiration rate must be recorded immediately prior to any parenteral sedation being given and every 5 minutes during procedure. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

7.5 Recovery

A regulated member or a sedation monitor must be in continuous attendance and direct observation of the patient during recovery. Continuous pulse oximetry, continuous heart rate monitoring (by SpO2 or ECG) and blood pressure monitoring (NIBP) must be recorded upon the beginning of the recovery phase and at least every 15 minutes until discharge.

7.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

8.0 Parenteral (intravenous only) Sedation for patients under 12 years of age

Pre-Operative

8.1 Regulated Member Training

A regulated member must have graduated from a Commission on Dental Accreditation of Canada (CDAC) or Commission on Dental Accreditation (CODA) accredited post graduate dental program with parenteral sedation training (Authorized Dentist) or obtain a letter from their dentistry program attesting to their training in parenteral sedation, including pediatric parenteral sedation to the level of competency. Alternatively, regulated members must successfully complete an CDSA approved training program or other continuing education courses, approved in advance by the CDSA. The regulated member must also hold a current CDSA permit for this sedation technique. The regulated member must have current PALS and an CDSA approved Airway Management course with a pediatric component. See Appendix K – Competence Education.

All regulated members and sedation team members must have current Resuscitation (BLS) training. See Appendix K – Competence Education.

8.2 Patient Selection

Patients must be at least 2 years of age. Patients must have a BMI between the 97th percentile and the 3rd percentile (see Appendix C – Growth Chart for Boys and Girls 2 – 9) and three or fewer well controlled comorbid conditions and be ASA 1, 2 or 3. ASA 3 patients may require that the regulated member consult with the patient's primary care physician or consulting medial specialist in situations with significant medical considerations or where the control of those conditions is unclear. ASA 4 patients are not permitted to be sedated by a Regulated Member using this technique.

An Authorized Dentist may treat patients who fall outside the above BMI parameters in an Accredited Dental Surgical Facility. See Appendix B – ASA and BMI Classifications.

Prior to sedation patients must have fasted for a minimum of 6-hours from a light meal, and a minimum of 2-hours from clear fluids.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula
4 hours	After ingestion of breast milk (no additions are allowed to pumped breast milk)
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

Intra-Operative

8.3 Staffing

A regulated member must administer the sedative dose in the operatory, taking into account any pre-arrival medications (e.g., cannabis, alcohol, narcotics, prescriptions, pre-arrival anxiolytics,

etc.). The regulated member and two sedation team members must be in continuous attendance and direct observation with the patient to observe level of sedation once the medication is given. One of the sedation team members must be a sedation monitor (see Appendix A – Definitions) and hold current sedation monitoring training. All three must be in continuous attendance and direct observation of the patient while the patient is sedated, during the intra-operative phase and until such time that the recovery phase commences.

8.4 Monitoring

Must include continuous pulse oximetry (SpO2), heart rate monitoring by electrocardiogram (ECG) and blood pressure monitoring (NIBP). Must also include continuous end tidal carbon dioxide (ETCO2) monitoring or Electronic Precordial Stethoscope. The choice of method used to monitor respiration must be documented on the sedation record. Continuous visual monitoring of respiration rate/effort and patient skin colour must occur. Vital signs including SpO2, heart rate, NIBP respiration rate must be recorded immediately prior to any parenteral sedation being given and at least every 5 minutes until discharge. These baseline vitals must be recorded before beginning the sedation.

Post-Operative

8.5 Recovery

A regulated member or a sedation monitor with PALS and an CDSA approved Airway Management course with a pediatric component must be in continuous attendance and direct observation of the patient during recovery. Continuous pulse oximetry, continuous heart rate monitoring (by SpO2 or ECG) and blood pressure monitoring (NIBP) must be recorded upon the beginning of the recovery phase and at least every 5 minutes until discharge.

8.6 Discharge

The regulated member must document level of consciousness prior to discharge. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System, see Appendix I – Discharge of Patients) to be discharged. Post-op written and verbal instructions must be provided, and the patient must be discharged into the care of a responsible adult.

Appendix A – Definitions

Accredited Dental Surgical Facility – a Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF) that has met the requirements for accreditation under the *Health Professions Act* and has been granted "Full Accreditation" status or "Provisional Accreditation" status by the Dental Facility Accreditation Committee (DFAC). An Accredited Dental Surgical Facility must be accredited by legislation. See A2, Legislation page 55.

Advanced Cardiac Life Support (ACLS) – is as course that is designed for healthcare professionals who either direct or participate in the management of cardiopulmonary arrest and other cardiovascular emergencies. This advanced course builds on the foundation of basic life support (BLS) skills.

Airway Management Course – Airway Management and an Airway Management course with a pediatric component are designed for healthcare professionals who initiate and direct in the management of anesthetized patients to facilitate oxygenation and mechanical ventilation.

College of Dental Surgeons of Alberta (CDSA)

American Dental Board of Anesthesiology (ADBA)

Analgesia – the diminution or elimination of pain.

Anxiolytics – (also antipanic or antianxiety agent) is a medication or other intervention that inhibits anxiety.

Automated External Defibrillator (AED) – is a portable electronic device that can analyze the heart's rhythm and, if necessary, deliver an electrical shock, or defibrillation, to help the heart re-establish an effective rhythm.

Authorized Dentist – a regulated member who has been approved by the CDSA to administer either deep sedation or general anaesthesia. The Authorized Dentist must:

- successfully complete the National Dental Specialty Examination (NDSE) in Oral and Maxillofacial Surgery; or
- successfully complete a minimum 24 consecutive month program for a Commission on Dental Accreditation (CODA) accredited post-graduate program in dental anaesthesia and, if graduated after 2014, have been successful and passed part 1 of The American Dental Board of Anesthesiology (ADBA) board examination process and within 24 months of graduation have successfully passed part 2 of The American Dental Board of Anesthesiology (ADBA) certification; or
- successfully complete a minimum 24 consecutive month program from a Canadian graduate program in dental anaesthesia and have successfully passed (both part 1 and part 2) of The American Dental Board of Anesthesiology (ADBA) certification; or
- any registered regulated member who can demonstrate to the Registrar their competency.

Bag-Valve-Ventilation – the process of providing oxygenation or assisted ventilation by using a bag-valve-mask device (e.g., Ambu bag).

Basic Life Support (BLS) – is the foundation for saving lives. It is a course which teaches single-rescuer and team basic life support skills, with a focus on recognizing life-threatening emergencies, giving high-quality chest compressions, delivering appropriate ventilations, providing early use of an AED, and team dynamics.

Body Mass Index (BMI) – is a measure of body size; indicating whether a person is underweight or if they have a healthy weight, excess weight, or obesity. Body Mass Index is calculated as (weight in kilograms) divided by (height in metres)^2.

Cardiopulmonary Resuscitation (CPR) – is the manual application of chest compressions and ventilations to patients in cardiac arrest, done in an effort to maintain viability until advanced help arrives. This procedure is an essential component of basic life support (BLS).

Commission on Dental Accreditation of Canada (CDAC) – is the body responsible for accrediting dental, dental specialty, dental residency, dental hygiene and dental assisting education programs in Canada. CDAC also accredits dental services. In Quebec, dental services accredited by ODQ are recognized by CDAC.

Commission on Dental Accreditation (CODA) – sole agency to accredit dental and dental-related education programs conducted at the post-secondary level. CODA accredits dental schools and programs including advanced dental education programs and allied education programs in the United States.

Continual – repeated regularly and frequently in a steady succession.

Continuous – prolonged without any interruption at any time.

Deep Sedation and General Anaesthesia are as defined by the American Society of Anesthesiologists (ASA):

Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused 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 Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, 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.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue*** patients whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation/Analgesia ("Conscious Sedation") should be able to rescue*** patients who enter a state of Deep Sedation/Analgesia, while those administering Deep Sedation/Analgesia should be able to rescue*** patients who enter a state of General Anesthesia.

** Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

*** Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia and hypotension) and returns the patient to the originally intended level of sedation. It is not appropriate to continue the procedure at an unintended level of sedation.

Dental Facility Accreditation Committee (DFAC) – established under the *Health Professions Act* to uphold and enforce dental services in Accredited Dental Surgical Facilities (NHSFs and DSFs).

Dental Surgical Facility (DSF) – a facility where dental surgical services are provided and is accredited by the College of Dental Surgeons of Alberta.

Discharge Criteria – the standards that are to be met when patients are being discharged from the clinic/facility. It is the regulated member's responsibility to ensure that a patient is sufficiently recovered to leave under the appropriate care of a relative or other caregiver.

Electrocardiogram (ECG) – the process of recording the electrical activity of the heart over a period of time using electrodes placed over the skin.

Enteral – a technique of drug administration in which the agent is absorbed through the gastrointestinal (GI) tract or mucosa. Examples of approved enteral administration include:

- oral
- sublingual (transmucosal)

Immediately Available – on-site in the facility and available for immediate use.

Inhalation – a technique of administration in which a gaseous or volatile agent is introduced into the lungs, and whose primary effect is due to absorption through the gas/blood interface.

Intravenous (IV) – a catheter inserted into a vein through which intravenous fluid and medications may be administered into the vascular system.

Intra-Operative Phase – occurring or performed during the course of a procedure.

Local Anaesthesia – the elimination of sensation, especially pain, in one part of the body by the topical application or regional injection of an analgesic drug.

Maximum Recommended Dose (MRD) – maximum recommended dose of a drug, as described in the manufacturer's product monograph on file in the Health Canada Drug Product Database (DPD).

Metered Dose Inhaler (MDI) – is a device that delivers a specific amount of medicaiton to the lungs.

Minimal Sedation (Anxiolysis) – is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.

Mock Emergency Drill – a dedicated clinical session, which takes place within the dental office or accredited dental surgical facility, in which all sedation team members practice the management of medical and/or anaesthetic emergencies, as if an actual emergency occurred.

Moderate Sedation/Analgesia ("Conscious Sedation") – is a drug-induced depression of consciousness during which patients respond purposefully** to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

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

National Dental Specialty Examination (NDSE) – is used by many provincial dental regulatory authorities as part of the requirement for licensure as a specialist and is administered by The National Dental Examining Board of Canada (NDEB).

Non-Hospital Dental Practice (NHDP) – any dental clinic where a dentist provides dental services to patients, which is not accredited by the College of Dental Surgeons of Alberta and/or by the College of Physicians and Surgeons of Alberta.

Non-Hospital Surgical Facility (NHSF) – non-hospital diagnostic and treatment facilities, in which medical and Dental Surgical Services are deemed as having sufficient risk of potential harm to a patient. Dental Surgical Services may be performed in these facilities. These facilities must register with and maintain accreditation by the College of Physicians and Surgeons of Alberta (CPSA) and the College of Dental Surgeons of Alberta (CDSA) as a Non-Hospital Surgical Facility (NHSF).

Non-Invasive Blood Pressure (NIBP) – manually or automatically records blood pressure with a pressure cuff.

Operatory – a room or other area with special equipment and facilities for dental procedures.

Oral and Maxillofacial Surgeons (OMFS) – specialized in surgery of the face, mouth and jaws.

Parenteral – a technique of drug administration whereby the administration route is not through the digestive tract. Examples of parenteral administration include:

- intramuscular (IM)
- intravenous (IV) **(this is the only method approved by the CDSA)*
- intranasal (IN)
- submucosal (SM)
- subcutaneous (SC)
- intraosseous (IO)

Pediatric Advanced Life Support (PALS) – is an advanced resuscitation course that is designed for healthcare professional who initiate and direct advanced life support in pediatric emergencies in children.

Pre-Operative – occurring, performed, or administered before and usually close to a procedure.

Post-Operative – during, relating to, or denoting the period following a procedure.

Recovery Phase – after the administration of all anaesthesia agents has stopped and the surgery, or the dental procedure, has been completed a phase of patient care known as the recovery phase begins. The recovery phase ends when the patient has meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System) and a minimum of 30 minutes must elapse after the last parenteral anaesthesia medication (or inhalational agent) was administered before discharge.

Recovery Room (area) – a dedicated recovery area may be a separate recovery room, or it may be the operating room/dental operatory, if that room is not required for another case. The recovery phase of sedation or anaesthesia must occur in a dedicated, properly equipped and properly staffed recovery room. A dedicated recovery room must be available for the patient's safe emergence from mild sedation, moderate sedation, deep sedation or general anaesthesia.

Resuscitation – is the procedure to support and maintain breathing, circulation, and heartbeat for a child or adult.

Regulated Member – General Practitioner [Dentist], Endodontist, Oral and Maxillofacial Surgeon, Orthodontist and Dentofacial Orthopedist, Pediatric Dentist, Periodontist, Prosthodontist, Oral Medicine and Pathology, Oral and Maxillofacial Radiologist and Public Health Dentists registered with the College of Dental Surgeons of Alberta.

Reversal Agents – any drug used to reverse the effects of anaesthetics, opioids or potentially toxic agents. Reversal agents include Flumazenil for benzodiazepines and Naloxone for opioids.

Sedation Monitor – a person designated by the responsible regulated member to monitor a patient's vital signs who is adequately trained, competent and indemnified to carry out the delegated tasks. Must have current Basic Life Support (BLS) training. A sedation monitor must be trained through a sedation monitoring training course approved by the CDSA.

Sedation Monitoring Training – is a course designed to provide familiarity with the anatomy, physiology and emergency management involved with monitoring and airway maintenance in the sedated patient. The sedation monitoring training course must be approved by the CDSA.

Sedation Team Member – a responsible adult designated by the regulated member to be part of the delivery of sedation services. This person must be adequately trained, competent and indemnified to carry out the delegated tasks. Must have current Basic Life Support (BLS) training.

Time-oriented Anaesthesia Record – documentation at appropriate time intervals of drugs, doses and physiological data obtained during patient monitoring.

Unforeseen Events – unforeseen events are defined as untoward, undesirable, and usually unanticipated events or outcomes that caused harm or risk of harm to a patient, employee or visitor. An unforeseen event may or may not be a result of a deviation from the normal process of

care. Unforeseen events are events related to patient status or outcomes that are considered significant indicators of health and safety factors for patient.

Unforeseen Event(s) must be documented, monitored and reported for safety, quality assurance and mandatory reporting purposes to the CDSA.

An Unforeseen Event Report (UER) sample form is found in Appendix H – Unforeseen Event Report (UER), Mandatory Notification. This form must be completed and submitted online via the members' website within two weeks of the telephone reporting to the CDSA.

Appendix B – ASA and BMI Classifications

ASA Physical Status Classification System

The latest version of the American Society of Anesthesiologists (ASA) physical statue classification system (ASAPS) as approved by the ASA House of Delegates, October 15, 2014; readopted 2019.

ASA 1: A normal healthy patient.
Example: Fit, nonobese (BMI under 30), a nonsmoking patient with good exercise tolerance.

ASA 2: A patient with mild systemic disease.
Example: Patient with no functional limitations and a well-controlled disease (e.g., treated hypertension, obesity with BMI under 35, frequent social drinker or is a cigarette smoker).

ASA 3: A patient with severe systemic disease that is not life-threatening.
Example: Patient with some functional limitation as a result of disease (e.g., poorly treated hypertension or diabetes, morbid obesity, chronic renal failure, a bronchospastic disease with intermittent exacerbation, stable angina, implanted pacemaker).

ASA 4: A patient with a severe systemic disease that is a **constant threat to life.**
Example: Patient with functional limitation from severe, life-threatening disease (e.g., unstable angina, poorly controlled COPD, symptomatic CHF, recent (less than three months ago) myocardial infarction or stroke.

ASA 5: A moribund patient who is not expected to survive without the operation. The patient is not expected to survive beyond the next 24 hours without surgery.
Examples: ruptured abdominal aortic aneurysm, massive trauma, and extensive intracranial hemorrhage with mass effect.

ASA 6: A brain-dead patient whose organs are being removed with the intention of transplanting them into another patient.

The addition of "E" to the ASAPS (e.g., ASA 2E) denotes an emergency surgical procedure. The ASA defines an emergency as existing "when the delay in treatment of the patient would lead to a significant increase in the threat to life or body part."

Body Mass Index (BMI) Formula

Body Mass Index is a simple calculation using a person's height and weight.

The formula is BMI = kg/m^2 where kg is a person's weight in kilograms and m^2 is their height in metres squared. A BMI of 25.0 or more is overweight, while the healthy range is 18.5 to 24.9 BMI applies to most adults 18 – 65 years.

Appendix C – Growth Chart for Boys and Girls 2 – 9

Boys 2 – 9

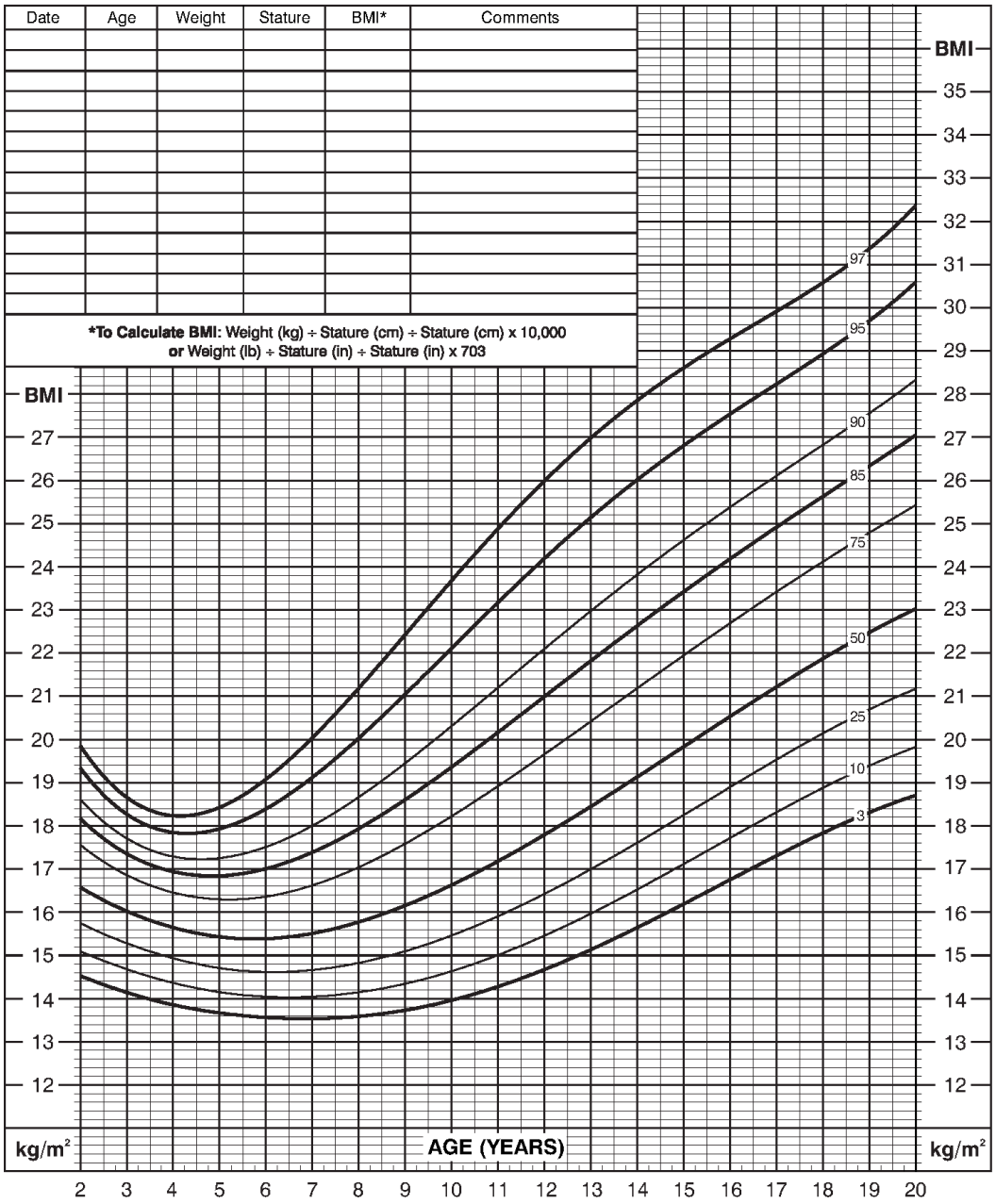
2 to 20 years: Boys
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

*To Calculate BMI: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

SAFER • HEALTHIER • PEOPLE™

https://www.cdc.gov/growthcharts/clinical_charts.htm

Girls 2 – 9

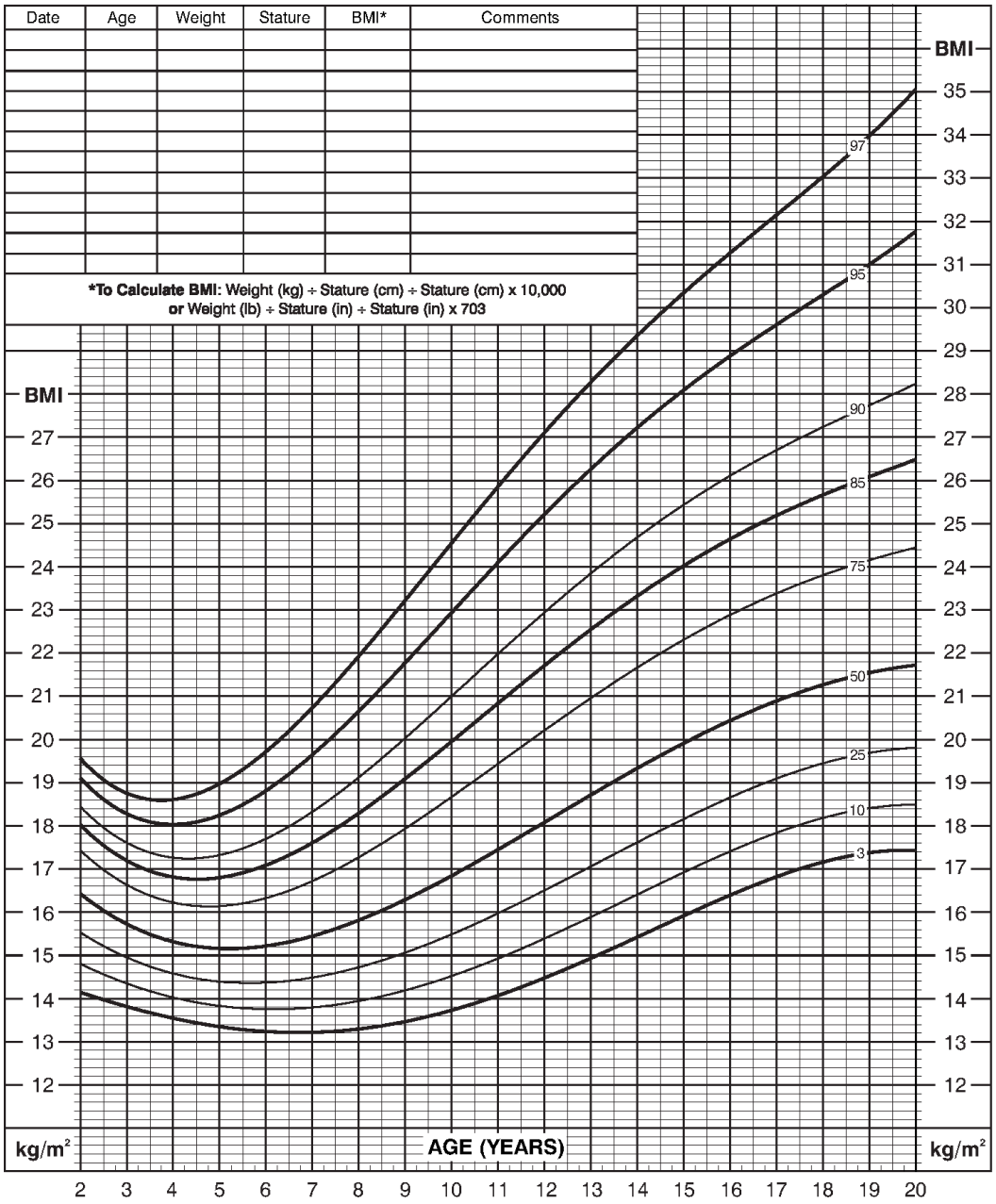
2 to 20 years: Girls
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI:** Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

SAFER • HEALTHIER • PEOPLE™

https://www.cdc.gov/growthcharts/clinical_charts.htm

Appendix D – Nitrous Oxide Equipment

1. Inhalation equipment must have the capacity to deliver 100% oxygen.
2. Nitrous oxide/oxygen equipment must have a fail-safe system.
3. Nitrous oxide/oxygen equipment must have an appropriate scavenging system.

Equipment Maintenance Requirements

1. Nitrous oxide machines must be inspected annually by a qualified technician or more frequently if recommended by the manufacturer, whichever is more frequent.
2. Physiological monitoring devices must be inspected and maintained on an annual basis or in accordance with the manufacturer's guidelines, whichever is more frequent.
3. A logbook of all equipment inspections and maintenance must be kept on the premises.

Medical Compressed Gases

1. Never permit oil or grease to come in contact with cylinders, valves, regulators, gauges, or fittings.
2. Cylinders must be stored in designated places away from the operating field where they will not be knocked over or damaged by passing or falling objects.
3. Cylinders must be protected from direct sunlight.
4. Cylinders in use must be securely chained to a solid object, or in a secure base, to prevent their tipping.
5. Full cylinders must be used in rotation in the order that they are received from the supplier.
6. Never use cylinders for rollers, supports or for any purpose other than to carry gas.
7. Where caps are provided for valve protection such caps must be kept on cylinders except when cylinders are in use.
8. Never tamper with the safety devices in valves or cylinders.
9. Never attempt to repair or alter cylinders or refill cylinders.
10. Never attempt to use gases in cylinders not bearing a contents label or cylinder having a label all of which is not completely legible.
11. Never use oxygen from a cylinder without reducing the pressure through a suitable regulator intended for that purpose only.
12. Never permit oxygen to enter the regulator suddenly. Open the cylinder valve slowly.
13. Fully open the valve when the cylinder is in use.
14. Never interchange oxygen regulators, hose, or other appliances with similar equipment intended for use with other gases.
15. Never hold a gloved hand over the outlet to test the pressure. A serious burn may result.
16. Never heat cylinders above room temperature or allow a flame to play on them.
17. Never use oxygen in place of compressed air as a pressure medium to blow out obstructed pipelines, to operate pneumatic tools or to build up pressure in tank containing oils or other flammable materials.
18. Oxygen must never be used to blow dust out of clothing or to freshen air in a closed place. Serious burns may result from such practices.
19. Close all oxygen cylinder valves when the cylinders are empty.
20. At the start of a sedation procedure turn on oxygen regulator only, then turn oxygen on at the machine.

Appendix E – Emergency Drugs and Equipment for Minimal and Moderate Sedation

1. Inhalation of nitrous oxide and oxygen.
2. Oral administration of a single dose of a single benzodiazepine drug with one supplemental dose.
3. Oral administration of a single dose of a single benzodiazepine drug with nitrous oxide and oxygen and one supplemental dose.

The following equipment must be immediately available during the use of the above listed sedation techniques:

Basic List for Emergency Treatment

A. Oral
1. Acetylsalicylic acid (ASA) 81 mg non-enteric coated chewable tablets.
2. Nitroglycerin spray.
3. Agents for the management of hypoglycemia.

B. Inhaled
1. Salbutamol (in the form of a Metered Dose Inhaler [MDI]).

C. Injectable
1. Flumazenil for benzodiazepines.

D. Equipment
1. Stethoscope.
2. Pulse oximeter.
3. Automatic non-invasive blood pressure (NIBP) apparatus with cuffs of appropriate sizes.
4. Portable apparatus for intermittent positive pressure resuscitation (bag-valve-mask) with a variety of mask sizes.
5. An Automated External Defibrillator (AED) and appropriately sized pads are required for any dental office providing sedation services. Must be serviced according to the manufacturer's instructions for use.
6. Glucometer. Test solution and strips. Must be serviced according to the manufacturer's instructions for use.
7. Portable oxygen tank with a variety of sizes of face masks and nasal cannulas.

Emergency Reversal Agents

Should a reversal agent (Flumazenil) be required, the patient must remain in the dental office for at least 75 minutes after the reversal agent has been administered to assess level of consciousness and vital signs up to and including the period of time the effects of each dose of the reversal agent is expected to last. Attention must be given to the half-life of the sedative administered as this may significantly affect the length of time the patient must remain in the dental office.

Reversal agents (Flumazenil) must never be used to expedite patient discharge. Reversal agents are for emergency use only.

The use of a reversal agent is a reportable Unforeseen Event.

Benzodiazepines have a specific reversal agent; therefore, they are the only medications that are approved by the CDSA for Minimal and Moderate Sedation.

Appendix F – Emergency Drugs and Equipment for Minimal to Moderate Sedation (Parenteral IV Sedation)

Regulated members administering Moderate Sedation with parenteral intravenous sedation require the medications and equipment listed below:

Basic List for Emergency Treatment

A. Oral

1. Acetylsalicylic acid (ASA) 81 mg non-enteric coated chewable tablets.
2. Nitroglycerin spray.
3. Agents for the management of hypoglycemia.

B. Inhaled

1. Salbutamol (in the form of a Metered Dose Inhaler [MDI]).

C. Intravenous

1. Atropine.
2. Benzodiazepine (e.g., Midazolam).
3. Diphenhydramine.
4. Epinephrine for IV administration and epi-pen.
5. Flumazenil (when Midazolam is used for IV sedation).
6. Agents for management of hypoglycemia (e.g., glucagon/glucose tablets/D50W).
7. Naloxone (when Fentanyl is used for IV sedation).

D. Equipment

1. Stethoscope.
2. Pulse oximeter.
3. Automatic non-invasive blood pressure (NIBP) apparatus with cuffs of appropriate sizes.
4. Portable apparatus for intermittent positive pressure resuscitation (bag-valve-mask) with a variety of mask sizes.
5. Oral pharyngeal airways in a variety of sizes (all facemasks, oral airways and other devices in contact with the patient or unfiltered exhaled gases must be single use and disposable or as per College of Dental Surgeons of Alberta *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry [IPC Standards]* must be reprocessed between patients in accordance with the manufacturer's instructions for use).
6. A deep tonsil suction (Yankauer suction).
7. Sufficient quantities of medical supplies such as various sizes of syringes and needles.
8. Portable oxygen tank with various sizes of face masks and nasal cannulas.
9. A manual defibrillator or Automated External Defibrillator (AED) and appropriately sized pads are required for any dental office providing sedation services. Must be serviced according to the manufacturer's instructions for use.
10. Glucometer. Test solution and strips. Must be serviced according to the manufacturer's instructions for use.
11. End-Tidal CO2 (ETCO2) or Electric Precordial Stethoscopes are required for monitoring IV sedation.
12. Selection of supraglottic airway devices (LMA'S and or i-GELS) (IV sedation).
13. Dedicated portable auxiliary battery-operated systems for light (Flashlight) (IV sedation).
14. Portable suction (IV sedation).
15. Magill forceps (IV sedation).
16. IV set up with intravenous solution (NS 1000 ml), tubing (10 gtt), IV catheters (IV sedation).

Emergency Reversal Agents

Should a reversal agent (Flumazenil and Naloxone) be required, the patient must remain in the dental office for at least 75 minutes after the reversal agent has been administered to assess level of consciousness and vital signs up to and including the period of time the effects of each dose of the reversal agent is expected to last. Attention must be given to the half-life of the sedative administered as this may significantly affect the length of time the patient must remain in the dental office.

Reversal agents (Flumazenil and Naloxone) must never be used to expedite patient discharge. Reversal agents are for emergency use only.

The use of a reversal agent is a reportable Unforeseen Event.

Fentanyl and benzodiazepines both have a specific reversal agent; therefore, they are the only two medications that are approved by the CDSA for IV sedation.

Appendix G – Mock Emergency Drills

Requirements for Mock Emergency Drills

1. Regulated members and sedation team members who administer minimal sedation only, must participate in mock emergency drills every six months.
2. Regulated members and sedation team members who administer moderate enteral or parenteral sedation must participate in mock emergency drills every six months.
3. Mock drills must include, but are not limited to:
    - Difficult airway management.
    - Anaphylaxis.
    - Laryngospasm.
    - Unresponsiveness.
    - Seizure.
    - Cardiac arrest.
4. There must be written plans for emergencies as listed below:
    - Fire.
    - Power loss.
    - Equipment failure.
    - Cardiopulmonary arrest.
    - Anaphylaxis.
    - Unauthorized intruder.
    - Emergency transfer to hospital.
5. There must be written safety policies and procedures. As a minimum, they must include information on the following:
    - General safety.
    - Medical compressed gases.
    - Infection Prevention and Control.
    - Biohazardous waste.
    - Electrical safety.
    - Fire safety.
    - Medical emergencies.
6. A record of emergency drills, including names of participants and scenarios covered, must be kept on the premises and be available for inspection.
7. If the dental office utilizes the services of a visiting regulated member or physician to administer sedation, they must have documented, up-to-date participation in mock drills.

Appendix H – Unforeseen Event Report (UER)

An Unforeseen Event Report (UER) must be completed when any of the following occur.

1. Death within the dental office or within 10 days of a sedation procedure.
   Note: In the event of a death, the Medical Examiner must be notified prior to any further action to the body. Including moving the body or removal of any lines or tubes from the body.
2. When a patient's response to sedation results in depression beyond the level of sedation intended or entry of the patient into levels of deep sedation or depression beyond sedation or into general anaesthesia.
3. Unforeseen events that required emergency interventions inside the dental office, such as, but not limited to cardiovascular collapse where resuscitation occurred on site and the patient was not transferred to hospital.
4. Transfer from the dental office to a hospital regardless of whether or not the patient was admitted.
5. Unexpected admission to a hospital within 10 days of a procedure or sedation performed in the dental office. (see also discharge instructions Appendix I – Discharge of Patients).
   Note: When notified of an unexpected admission of a patient to hospital within 10 days of the procedure in the dental office, the Registrar may determine that written notification is not required when the reason given for admission to hospital is not related to the services provided in the office.
6. Unexpected treatment by a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), or hospital within 10 days of the sedation procedure.
   Note: When notified of unexpected treatment by a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), or hospital within 10 days of the procedure in the dental office, the Registrar may determine that written notification is not required when the reason given for treatment is not related to the services provided in the dental office.
7. Clusters of infections among patients treated in the dental office.
8. Any procedure performed on the wrong patient, site or side.
9. Missing or non-locatable opioids or Class 1 controlled substances.
10. When a reversal agent is used (Flumazenil or Naloxone).

In the event of an Unforeseen Event, a verbal report must be made via telephone (780-432-1012) to the CDSA within one business day of an Unforeseen Event or becoming aware of an Unforeseen Event.

A sample of an Unforeseen Event (UER) Report is found in Appendix H – Unforeseen Event Report (UER), Mandatory Notification. This Unforeseen Event Report (UER) must be completed online within two weeks of the telephone reporting.

The report must contain the following:

- Name, age and sex of the person affected.
- Medical history of the person affected including ASA Classification.
- Name of witness(es) to the event.
- Date and name of procedure.
- Date and time of event.
- Nature of the event and treatment rendered.
- Analysis of reasons for the event.
- Outcome.
- Patient clinical record.

Unforeseen Event Report (UER) Requirements

Unforeseen Events must be reported to the College of Dental Surgeons of Alberta as follows:

- Verbal report via telephone (780-432-1012) within one business day of an Unforeseen Event or becoming aware of an Unforeseen Event.
- Online submission within two weeks of the Unforeseen Event to the College of Dental Surgeons of Alberta (CDSA), via the members' website.

A. Documentation Required

- The Unforeseen Event Report must be completed by the regulated member administering sedation in a dental practice or regulated member who performed or was scheduled to perform the sedation and treatment, whichever may apply.
- A copy of the patient's clinical record.
- A summary by the regulated member involved with the case describing the unforeseen event, action taken, possible risk factors and outcome.

The College of Dental Surgeons of Alberta will review the circumstances of the Unforeseen Event with the regulated member where sedation was administered in a dental practice and may consult with other practitioners to determine the risk of harm to patients.

If necessary, the Registrar may suspend the regulated members' sedation registration and/or sedation permit.

B. Mandatory Notification – Sample Form

Indicate Location of Unforeseen Event*

- Minimal and Moderate Sedation in a Non-Hospital Dental Practice

1. Identify the Type of Event

- o Death within the dental office or within 10 days of a sedation procedure.
  Note: In the event of a death, the Medical Examiner must be notified prior to any further action to the body, including moving the body or removal of any lines or tubes from the body.
- o When a patient's response to sedation results in depression beyond the level of sedation intended or entry of the patient into levels of deep sedation or depression beyond sedation or into general anaesthesia.
- o Unforeseen events that required emergency interventions inside the dental office, such as, but not limited to cardiovascular collapse where resuscitation occurred on site and the patient was not transferred to hospital.
- o Transfer from the dental office to a hospital regardless of whether or not the patient was admitted.
- o Unexpected admission to a hospital within 10 days of a procedure or sedation performed in the dental office (see also discharge instructions Appendix I – Discharge of Patients).
  Note: When notified of an unexpected admission of a patient to hospital within 10 days of the procedure in the dental office, the Registrar may determine that written notification is not required when the reason given for admission to hospital is not related to the services provided in the dental office.
- o Unexpected treatment by a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), or hospital within 10 days of the sedation procedure.
  Note: When notified of unexpected treatment by a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), or hospital within 10 days of the procedure in the dental office, the Registrar may determine that written notification is not required when the reason given for treatment is not related to the services provided in the dental office.
- o Clusters of infections among patients treated in the dental office.
- o Any procedure performed on the wrong patient, site or side.
- o Missing or non-locatable opioids or Class 1 controlled substances
- o When a reversal agent is used (Flumazenil or Naloxone).

2. Report Completed By

The name of the person who is filing out the form.

Name*

First | Last

Title*

Phone* | Phone Extension

Email*

Enter Email | Confirm Email

Date Report Completed*

4. General Information

Dental Practice Name*

Name of dental practice where the event occurred.

Regulated Member Name (Treatment Procedure Provided By)*

Prefix | First | Last

Date of Unforeseen Event* | Date of Procedure*

5. Sedation Information

Sedation performed By (Name)*

Prefix | First | Last

Type of Sedation*

- o Modality 1.0 Nitrous Oxide Sedation for patients 12 years of age and older
- o Modality 2.0 Nitrous Oxide Sedation for patients under 12 years of age
- o Modality 3.0 Oral Sedation for patients 12 years of age and older
- o Modality 4.0 Oral Sedation for patients under 12 years of age
- o Modality 5.0 Oral Sedation with Nitrous Oxide Sedation for patients 12 years of age and older
- o Modality 6.0 Oral Sedation with Nitrous Oxide Sedation for patients under 12 years of age
- o Modality 7.0 Parenteral (intravenous only) Sedation for patients 12 years of age and older - Single Drug (Benzodiazepine)
- o Modality 7.0 Parenteral (intravenous only) Sedation for patients 12 years of age and older - Two Drug (Benzodiazepine and Fentanyl)
- o Modality 8.0 Parenteral (intravenous only) Sedation for patients under 12 years of age - Single Drug (Benzodiazepine)
- o Modality 8.0 Parenteral (intravenous only) Sedation for patients under 12 years of age - Two Drug (Benzodiazepine and Fentanyl)

6. Patient Information

Patient Name*

First | Last

AHCI #*

Please enter the 9 digit Personal Health Number

Sex*

- M (Male)
- F (Female)
- X (Unspecified)

Date of Birth*

Age at time of Incident

Height*

Units*
- cm
- Feet & Inches

Weight*

Units*
- Kg
- lbs

ASA Classification*

Please Choose One

Treatment Proposed*

Treatment Performed*

6. Description of Event

a. Describe what happened. Brief details of unforeseen event.

b. Describe where it happened. Describe the exact location in the Dental Practice.

c. What was the outcome including diagnosis, length of stay, sequelae, etc.?

7. History of the Event

Describe contributing factors to the unforeseen event.

a. Patient (i.e., co-existing disease conditions, language barriers, etc.). *

b. Personnel (i.e., number, training, experience, performance).*

c. Equipment (list any equipment that may have played a role in the unforeseen event). *

d. Environment (i.e., noisy, crowded, etc.). *

8. Response to the Unforeseen Event

a. If this unforeseen event had progressed without corrective action, what might the outcome have been for the patient? *

b. What prevented this event from becoming more serious? *

c. What steps have been taken to prevent future occurrences such as change to policy or procedures? Give details and provide documentation if applicable. *

9. Supporting Documentation

Please upload any documentation you have for this unforeseen event below. If you have additional files to send, please ensure the files are sent using an encrypted service (i.e., CDA Secure Send, Bright Squid, etc.) with the subject line "Unforeseen Event Documentation".

File(s)

Drop files here or

SELECT FILES

Accepted file formats are picture files, video files, and documents including PDFs, Microsoft Word and Microsoft Excel. If you require another file type please contact the CDSA.

10. Certification

I hereby confirm that I have reviewed the contents of this report and certify that the information herein is true and accurate.

Name*

First

Last

Submission Date*

Consent*

☐ By submitting this registration electronically, I acknowledge that I am a regulated member of the College of Dental Surgeons of Alberta and agree that the contents are true and complete as if I had signed the documents in writing. I declare that the contents of this registration are true and complete and I understand and agree that if I make a false or misleading statement or representation in my registration, I will be deemed to not have satisfied the requirements of registration. I further understand and agree that making a false or misleading statement to the College of Dental Surgeons of Alberta may constitute unprofessional conduct.

SUBMIT

You have submitted your Unforeseen Event Report. Your report will be reviewed.

Appendix I – Discharge of Patients

Discharging the Patient Following Any Form of Sedation (other than just nitrous oxide)

1. The regulated member who administered the sedation shall remain on the premises until the patient meets discharge criteria.
2. It is the regulated member's responsibility to ensure that a patient is sufficiently recovered to leave under the appropriate care of a responsible adult.
3. Appropriate verbal and written post-discharge instructions shall be given to the patient and a responsible adult.
4. The patient and accompanying responsible adult must be provided with a 24-hour contact number or call centre number as part of the discharge instructions.
5. Instructions not to drive or operate hazardous equipment for 24-hours after a general anaesthetic or deep sedation or IV sedation shall be given to the patient and a responsible adult.
6. Instructions shall be given to the patient and a responsible adult explaining the procedure for accessing emergency care if necessary.
7. Instructions shall be given to the patient and a responsible adult informing them that the dental practice should be notified in the event of:
    - Any unexpected admission to a hospital within 10 days of treatment at the dental office.
    - Transfer of the patient or the care of the patient to another care provider, a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), medical facility or hospital within 10 days of the sedation for emergency treatment.
    - Unexpected treatment by another care provider, a Non-Hospital Surgical Facility (NHSF), Dental Surgical Facility (DSF), medical facility or hospital within 10 days of the sedation procedure.

Aldrete Score				
Activity	Respiration	Circulation	Consciousness	Oxygen Saturation
2: Moves all extremities voluntarily/ on command	2: Breaths deeply and coughs freely	2: BP +/- 20 mm of preanaesthetic level	2: Fully awake	2: SpO2 > 92% on room air
1: Moves 2 extremities	1: Dyspneic, shallow or limited breathing	1: BP +/- 20-50 mm of preanaesthetic level	1: Arousable on calling	1: Supplemental O2 required to maintain Spo2 >90%.
0: Unable to move extremities	0: Apneic	0: BP +/- 50 mm of preanaesthetic level	0: Not responding	0: SpO2 <92% with O2 supplementation

Appendix J – Drugs

Drugs and Medications

1. There shall be a drug inventory record and a policy requiring periodic assessment of all drugs kept in the facility.
2. Drugs shall be stored in a manner suitable for their security, re-stocking, and renewal of outdated supplies.
3. Drugs shall be stored according to the manufacturer's recommendations (e.g., refrigeration as necessary).
4. Drugs dispensed to patients at the time of discharge shall be recorded on the clinical record, and verbal and written instructions for their use given to the patient or their accompanying responsible adult.

Controlled Substances/Opioids

1. One sedation team member shall be designated to have overall responsibility for ensuring that all controlled substances are handled in a manner that permits full auditing of the substances from acquisition through to patient administration.
2. There shall be a log of controlled substances received by the facility that includes the name and quantity of the drug, and the date received.
3. All controlled substances shall be kept in a designated secure and locked storage cabinet.
4. The following information shall be recorded on the log for each use of a controlled substance administered:
    - Patient name.
    - Drug name and amount removed from inventory.
    - Date.
    - Name of the person who administered the drug.
5. On each day that controlled substances are used, there shall be an end-of-day balance of the inventory of controlled substances via physical count, verified by the signatures of two qualified staff members.
6. Investigations conducted as a result of any discrepancies shall be documented and an Unforeseen Events Report must be filed with the CDSA.

Appendix K – Competence Education

Regulated members who are performing minimal and moderate sedation for their patients are required to attain a minimum of 8 CE hours in a two-year period. This may include Resuscitation*** Basic Life Support (BLS), Advanced Cardiovascular Life Support (ACLS), Pediatric Advanced Life Support (PALS) or Airway Management.

Regulated members who have not maintained current sedation CE requirements in a 2-year period may not administer any form of sedation until such CE requirements have been filled.

Regulated members must maintain current certification in BLS, ACLS, PALS and Airway Management (applicable to technique of sedation utilized by regulated member). If certification expires the regulated member may not administer any form of sedation.

BLS training is required (every 12 months).

ACLS and an CDSA approved Airway Management course (both every 24 months) are required for those regulated members administering parenteral IV sedation to patients over 12 years of age; and PALS and an CDSA approved Airway Management course with a pediatric component (both every 24 months) are required for those regulated members administering oral sedation, oral sedation with nitrous oxide sedation and parenteral IV sedation to patients under 12 years of age.

Only BLS, ACLS, PALS and Airway Management courses that are authorized by the CDSA will be accepted. These courses must be in person courses for both didactic teaching and hands-on instruction. Any on-line, or correspondence courses, are not considered acceptable.

Regulated members who have not administered IV sedation in a 3-year period and would like to continue to provide this sedation technique must re-certify by taking an CDSA approved training program.

***Resuscitation is a procedure to support and maintain breathing, circulation, heartbeat for a child or adult.

CPR – Cardiopulmonary Resuscitation is designed for healthcare professionals who provide care to patients to recognize a number of life-threatening emergencies. Also known as BLS – Basic Life Support Provider (formerly known as BLS for Healthcare Provider), Healthcare Provider CPR – Level C, etc. For consistency referenced as BLS in this document.

ACLS – Advanced Cardiovascular Life Support is designed for healthcare professionals who either direct or participate in the management of cardiopulmonary arrest and other cardiovascular emergencies.

PALS – Pediatric Advanced Life Support is designed for healthcare professional who initiate and direct advanced life support in pediatric emergencies in children.

Airway Management – Airway Management and Pediatric Airway Management are designed for healthcare professionals who initiate and direct in the management of anesthetized patients to facilitate oxygenation and mechanical ventilation.

Regulatory References

1. American Society of Anesthesiologists (ASA), October 2014; readopted 2019 https://www.asahq.org/standards-and-guidelines
2. Canadian Anesthesiologists' Society (CSA), 2020 https://www.cas.ca/english/guidelines
3. Centers for Disease Control and Prevention: Boys Growth Chart https://www.cdc.gov/growthcharts/clinical_charts.htm
4. Centers for Disease Control and Prevention: Girls Growth Chart https://www.cdc.gov/growthcharts/clinical_charts.htm
5. College of Dental Surgeons of British Columbia (CDSBC): Deep Sedation Services In Dentistry (Non-Hospital Facilities), August 2008
6. College of Dental Surgeons of British Columbia (CDSBC): Deep Sedation Services In (Non-Hospital Facilities), Addendum, December 2016
7. College of Dental Surgeons of British Columbia (CDSBC): General Anaesthetic Services In Dentistry (Non-Hospital Facilities), August 2008
8. College of Dental Surgeons of British Columbia (CDSBC): General Anaesthetic Services In Dentistry (Non-Hospital Facilities), Addendum, March 2016
9. College of Dental Surgeons of British Columbia (CDSBC): Minimal and Moderate Sedation Services in Dentistry (Non-Hospital Facilities) Standards and Guidelines, June 2016
10. College of Physicians & Surgeons of Alberta (CPSA): Dental/Oral & Maxillofacial Surgery (OMFS) (For Dentists/OMFS Owned and Operated Facilities) Standards & Guidelines, March 2016 v2
11. College of Physicians & Surgeons of Alberta (CPSA): Non-Hospital Surgical Facility Standards & Guidelines, March 2016 v3
12. Coté CJ, Wilson S, American Academy Of Pediatrics, American Academy Of Pediatric Dentistry. Guidelines for Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures: Update 2016. Pediatrics. 2016, 138(1):e20161212
13. Health Canada: Drug Product Database (DPD) https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html
14. Manitoba Dental Association: The Bylaw For Pharmacological Behaviour Management, April 2017
15. Royal College of Dental Surgeons of Ontario, Standard Of Practice: Use of Sedation and General Anesthesia in Dental Practice, June 2012
16. The College of Dental Surgeons of Saskatchewan, CDDS Guidelines For Sedation In the Dental Office, September 1997

College of Dental Surgeons of Alberta

Deep Sedation and General Anaesthesia

Table of Contents

Deep Sedation and General Anaesthesia

A Accredited Dental Surgical Facility

For this document, the term Deep Sedation and General Anaesthesia are as defined by the American Society of Anesthesiologists (ASA).

Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused 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 Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, 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.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue*** patients whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation/Analgesia ("Conscious Sedation") should be able to rescue*** patients who enter a state of Deep Sedation/Analgesia, while those administering Deep Sedation/Analgesia should be able to rescue*** patients who enter a state of General Anesthesia.

** Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

*** Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia and hypotension) and returns the patient to the originally intended level of sedation. It is not appropriate to continue the procedure at an unintended level of sedation.

Authorized Dentists must hold a current CDSA permit for Deep Sedation/General Anaesthesia. **The single operator model of simultaneously providing deep sedation or general anaesthesia and dental treatment by the same regulated member is prohibited.**

The *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* are the standards that apply to regulated members who are providing Dental Surgical Services in a Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF).

Specifically, the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards apply to the following:

- Regulated members who provide Dental Surgical Services in a NHSF or a DSF.
- Regulated members who are qualified to administer deep sedation or general anaesthesia in a NHSF or DSF (Authorized Dentists).
- Facilities that provide Dental Surgical Services.
- Dental procedures where there is a risk to a patient that requires that the procedures be performed in a NHSF or DSF but does not have to be performed in a hospital.
- Clinical personnel who provide surgical or anaesthetic support to regulated members.
- The provision of deep sedation (ASA definition).
- The provision of general anaesthesia (ASA definition).

- Any setting where a regulated member administers any modality of sedation that is likely to render, or renders, the patient unconscious.
- The administration of any modality of sedation that results in a depression or partial or full loss of reflexes, including:
    - Patients cannot be easily aroused but respond purposefully following repeated or painful stimulation.
    - The ability to independently maintain ventilatory function may be impaired.
    - Patients may require assistance in maintain a patent airway.
    - Spontaneous ventilation may be inadequate.

It is unprofessional conduct to breach the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* to fail or refuse to cooperate with a request of the Dental Facilities Accreditation Committee (DFAC). The DFAC must make a referral to the complaint's director if, on the basis of information obtained, the DFAC is of the opinion that a regulated member may be guilty of unprofessional conduct.

A1 Summary of Roles and Responsibilities

A Dental Surgical Facility (DSF) must have a Dental Operator. A Dental Operator is a regulated member who is an Operator and the registered owner or the person who has the apparent care and control of the DSF. A Dental Operator must apply to the CDSA in accordance with the regulations for accreditation with respect to providing Dental Surgical Services and procedures for renewal of that accreditation.

There may be regulated members in accredited dental surgical facilities who are not owners or Dental Operators. These regulated members are called Non-Owner Facility Dentists (NOFD). A Non-Owner Facility Dentist is a regulated member who provides Dental Surgical Services in a Dental Surgical Facility (DSF) or Non-Hospital Surgical Facility (NHSF) but is not the owner or Operator of the facility. The Dental Operator is responsible to obtain written confirmation from the Non-Owner Facility Dentist of compliance with the *Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards. The Non-Owner Facility Dentist is responsible to provide written confirmation of their compliance with these Standards to the Dental Operator or Medical Director.

A Non-Hospital Surgical Facility (NHSF) must have a Medical Director. A Medical Director is a physician who is an owner or operator of the facility. This facility is accredited and regulated by the College of Physicians and Surgeons of Alberta and the College of Dental Surgeons of Alberta if Dental Surgical Services are provided in the NHSF.

Regulated members who provide Dental Surgical Services in a NHSF must comply with the College of Physicians and Surgeons of Alberta, *Non-Hospital Surgical Facility Standards & Guidelines* and the College of Dental Surgeons of Alberta (CDSA), *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.

Where anaesthetic services are provided by a Medical Director, the College of Physicians and Surgeons of Alberta is responsible for accreditation and regulation relating to the practice of medicine and anaesthesia services provided by physicians.

The College of Physicians and Surgeons is responsible for regulation and accreditation of the services provided by a physician in an accredited NHSF facility. If a physician practices medicine or provides anaesthesia services in a NHSF or a DSF facility, the facility must register and maintain accreditation as a NHSF with the College of Physicians and Surgeons. In a NHSF or DSF where physicians administer anaesthesia, some of the responsibilities of a Dental Operator and Medical Director may be shared.

A2 Legislation

The *Health Professions Act* requires that an Accredited Dental Surgical Facility (NHSF and a DSF) must be accredited before a regulated member provides Dental Surgical Services. The *Health Professions Act*, *the Dental Surgical Facility Accreditation Regulation,* the *Health Facilities Act*, the *Dentists Profession Regulation* and the *Bylaws* of the CDSA establish the overall regulatory framework and authority regarding Accredited Dental Surgical Facilities (NHSFs and DSFs). Under this authority, the Dental Facility Accreditation Committee (DFAC) was established to uphold and enforce the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards.

Dental Surgical Services means any of the following:

- A professional service that is provided by a regulated member where an anaesthetic is used that renders the patient unconscious or where deep sedation is used.
- An insured surgical service as defined in the *Health Facilities Act* that is provided by a regulated member in a facility that must be accredited.
- Any other professional service described in the regulations that is provided by a regulated member that in the opinion of the council represents a risk to the patient that is greater than usual for a professional service provided by a regulated member.

Restricted activities that can be performed by regulated members are outlined in the Standard of Practice: *Restricted Activities*. With respect to anaesthetics, section C(k) authorizes all regulated members to prescribe or administer nitrous oxide for the purpose of anaesthesia or sedation. Section D of the Standard of Practice requires that, only regulated members who successfully complete an educational program in the administration of deep sedation and general anaesthesia approved by the Council and have been authorized by the Council may prescribe and administer anesthesia gases, other than nitrous oxide, for the purpose of anaesthesia and sedation.

A3 Credential Approval

Regulated members obtain credentials through a number of ways and from a number of sources. The CDSA is not a credentialing body.

The CDSA Council must approve the educational program or credentials before the regulated member is authorized to administer deep sedation or general anaesthesia.

A regulated member may administer either deep sedation or general anaesthesia if they have been approved by the CDSA to be an Authorized Dentist. The Authorized Dentist must:

- Successfully complete the National Dental Specialty Examination (NDSE) in Oral and Maxillofacial Surgery; or
- Successfully complete a minimum 24 consecutive month program for a Commission on Dental Accreditation (CODA) accredited post-graduate program in dental anaesthesia and, if graduated after 2014, have been successful and passed part 1 of The American Dental Board of Anesthesiology (ADBA) board examination process and within 24 months of graduation have successfully passed part 2 of The American Dental Board of Anesthesiology (ADBA) certification; or
- Successfully complete a minimum 24 consecutive month program from a Canadian graduate program in dental anaesthesia and have successfully passed (both part 1 and part 2) of The American Dental Board of Anesthesiology (ADBA) certification; or
- Any registered regulated member who can demonstrate to the Registrar their competency.

The Authorized Dentist must also have current:

- Cardiopulmonary Resuscitation (BLS) training (every 12 months).
- Advanced Cardiac Life Support (ACLS) and an CDSA approved Airway Management course (both every 24 months) are required for those regulated members administering deep

sedation or general anaesthesia for patients over 12 years of age; and Pediatric Advanced Life Support (PALS) and an CDSA approved Airway Management course with a pediatric component (both every 24 months) are required for those regulated members administering deep sedation or general anaesthesia to patients under 12 years of age.

- Regulated members who are performing deep sedation or general anaesthesia for their patients are required to attain a minimum of 8 CE hours in a two-year period. This may include ACLS, PALS or Airway Management course. This may not include BLS.
- Regulated members who have not maintained current sedation CE requirements in a 2-year period may not administer any form of sedation until such CE requirements have been filled.
- Regulated members must maintain current certification in BLS, ACLS, PALS and Airway Management (applicable to technique of sedation utilized by regulated member). If certification expires the regulated member may not administer any form of sedation.
- Regulated members who have not administered deep sedation or general anaesthesia in a 3-year period and would like to provide this sedation technique must re-certify by taking an CDSA approved training program.

Regulated members performing surgical, diagnostic or anaesthetic services in a NHSF or a DSF, must have approval by the CDSA of their anaesthetic or specialty credentials as well as authorization to perform the related anaesthetic or specialty procedures in such facilities.

B Accreditation of a Dental Surgical Facility

In order to become accredited, the DFAC will determine if a NHSF or DSF has met the accreditation requirements. The DFAC may then grant "Full Accreditation" status or "Provisional Accreditation" status, in accordance with sections B1 and B2 below.

The DFAC may also grant "Full Accreditation" status or "Provisional Accreditation" status based on approval or confirmation of Standards from another source, where the Committee recognizes those as the equivalent of the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* such as the *College of Physicians and Surgeons of Alberta: Non-Hospital Surgical Facility Standards and Guidelines*.

B1 Full Accreditation Status

The DFAC may grant or renew accreditation to a NHSF or DSF resulting in "Full Accreditation" status if the NHSF or DSF meets/complies with the accreditation requirements as laid out in the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.

The CDSA may review a NHSF or DSF and direct the Dental Operator to make changes as directed within a specified time period. The CDSA may revoke accreditation if any practice in the NHSF or DSF is considered unsafe and may revoke such accreditation.

An "Accreditation Certificate" will be issued by the CDSA to all facilities with "Full Accreditation" status. Facilities providing deep sedation and general anaesthesia must be inspected every 4 years by the CDSA. New facilities (where there is an owner change or a new facility opening) must be inspected prior to providing deep sedation and general anaesthesia sedation.

Accreditation is limited to 4 years from the date of last approval unless extended by the CDSA and may be renewed through a process of re-accreditation which will follow the same steps as those of the CDSA Dental Facilities Accreditation Process.

A spot inspection of an accredited NHSF or DSF may be ordered by the DFAC and conducted without prior notice. This may affect the existing accreditation status of a NHSF or DSF and require the resulting NHSF or DSF to comply with the directions of the DFAC to affect "Full Accreditation" status. Spot inspections are at no cost to the NHSF or DSF.

B2 Provisional Accreditation Status

The DFAC may require a NHSF or DSF to make certain changes in order to receive "Full Accreditation" status, or may grant accreditation for a specified time period resulting in "Provisional Accreditation" status, as outlined below:

1. The DFAC grants "Provisional Accreditation" status to the NHSF or DSF with written reasons and provides a time frame for the Dental Operator to provide more information or evidence of requested changes to the DFAC to ameliorate accreditation deficiencies.
2. The DFAC will decide whether such follow-up information will be collected in writing and/or at a re-inspection. A written response to each deficiency may be required of the Dental Operator.
3. A follow-up inspection may be required at the sole discretion of the DFAC.
4. "Provisional Accreditation" status may be granted for an indefinite period at the discretion of the DFAC.
5. The status of "Full Accreditation" may be granted when deficiencies regarding the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards have been corrected to the satisfaction of the DFAC.

B3 Dental Facilities Accreditation

A Dental Operator of a DSF or a Medical Director of NHSF, where Dental Surgical Services are provided, must complete and submit an Application Form for Accreditation to the CDSA and DFAC for review. The process for approval includes the steps outlined below:

1. The DFAC determines the need for an Accreditation Review of the NHSF or DSF.
2. If YES, the Dental Operator or Medical Director completes and submits a Dental Surgical Facilities Accreditation Questionnaire to the Accreditation Inspection Team.
3. The Accreditation Inspection Team prepares for the on-site inspection and requests additional information from the Dental Operator or designate in advance of the inspection where required.
4. On-site inspection by the Accreditation Inspection Team takes place.
5. Dental Operator or Medical Director provides post-inspection visit information to the Accreditation Inspection Team when requested.
6. A Dental Surgical Facility Accreditation Summary Report is prepared by the Accreditation Inspection Team and presented to the DFAC.
7. The DFAC decides whether to grant an Accreditation Status of the NHSF or DSF with the following 3 status options:
    - The DFAC grants "Full Accreditation" status if all requirements are met. The Dental Operator receives notification in writing and an CDSA Dental Surgical Facility "Accreditation Certificate".
    - The DFAC grants "Provisional Accreditation" status with reasons and, in writing, provides a time frame for the Dental Operator to provide more information or evidence of requested changes to the Accreditation Inspection Team to ameliorate accreditation deficiencies and ultimately effect conversion from "Provisional Accreditation" to "Full Accreditation" status. The DFAC will determine whether such follow-up information will be collected in writing and/or at a re-inspection.
    - The DFAC does not grant any accreditation status.

8. The Dental Operator or Medical Director publically displays the CDSA Dental Surgical Facility "Accreditation Certificate" in order to communicate the accreditation status to the public and to regulated members or other health professionals who may perform duties in the Accredited Dental Surgical Facility.

C Management and Operation of an Accredited Dental Surgical Facility

C1 Role of the Dental Operator

C1.1 A Dental Operator's duties and responsibilities include:

- To apply to the Registrar of the CDSA in accordance with the regulations for Dental Surgical Facility Accreditation and renewal of Accreditation.
- That the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards are complied with.
- That Unforeseen Events are reported to the CDSA.
- That all clinical and administrative procedural *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards are followed by personnel.
- That they have ultimate authority over and accountability for the accreditation requirements of the Dental Surgical Facility which includes requirements with Alberta Health to secure designation as an Accredited Dental Surgical Facility where required.
- That regulated members working in the Accredited Dental Surgical Facility have the necessary credential approval and authorization by the CDSA relative to the services they are providing, in keeping with legislative requirements and authority of the CDSA.
- That written documentation is kept that attests that each Non-Owner Facility Dentist complies with the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* Standards and that the documentation along with the required evidence of compliance is kept.
- That the regulatory status of other regulated professionals working in the Accredited Dental Surgical Facility is appropriate and current in Alberta.
- That the safe and effective care of patients in the Accredited Dental Surgical Facility is achieved.
- That the clinical status of patients is assessed, monitored and responded to in a timely and appropriate manner, where required.
- That the duties and responsibilities of all personnel are described, understood and documented and that personnel records are maintained.
- That required numbers of appropriately trained personnel are present during procedures.
- That up-to-date participation of mock drills are documented.
- That the CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* for Accredited Dental Surgical facilities are met
- That equipment is appropriate and safe.
- That complete and current Manuals, appropriate to the Accredited Dental Surgical Facility, are in place.
- That arrangements and protocols are in place for the emergency transfer and admission of patients to hospital.
- That an Annual Report is submitted when requested by DFAC.
- That an adequate quality assurance program including the monitoring of infections and medical complications is in place.

- That appropriate, complete and accurate patient records and documentation relating to the operation of the facility and procedures performed are confidential.
- That fees for the CDSA Dental Facilities Accreditation Process are paid as required.
- That there is cooperation with the College of Physicians and Surgeons for the purposes of other accreditation requirements, where applicable.

C1.2 A Dental Operator must:

- Notify the CDSA in writing and in anticipation of or in advance of any intended change to the procedures the Accredited Dental Surgical Facility has been accredited to provide.
- Obtain written approval from the DFAC before implementing the change.
- Notify the CDSA in writing and in anticipation of or in advance of any intended change of the Dental Operator of the Accredited Dental Surgical Facility.

C1.3 A Dental Operator must, in anticipation of or in advance of any of the following changes with respect to an Accredited Dental Surgical Facility, advise the CDSA in writing of:

- Any major structural change to a patient care area(s).
- Any major change in types of procedures or practices, including those related to deep sedation or general anaesthesia services or equipment.
- Any significant changes in personnel who provide anaesthesia services.
- Any significant increase in volumes of procedures performed which means more than 50 percent of the previously reported volume.
- Any change of ownership of the Accredited Dental Surgical Facility.

C2 Non-Owner Facility Dentist

C2.1 A Non-Owner Facility Dentist and accompanying personnel duties and responsibilities include:

- To comply with *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.
- To maintain current BLS and provide evidence of current certification on an annual basis.
- To comply with facility emergency, CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry*, immunization, and management of percutaneous injury policies and procedures.
- To ensure that instrument or devices brought to the facility for the provision of dental procedures be processed according to relevant CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* and facility policies and procedures.
- To monitor and report to the facility any post-operative infections that could be as a result of treatment provided at the facility.
- To report Unforeseen Event(s) to the CDSA.
- To participate in documented emergency mock drills every six months as required by facility policies and procedures.
- That accompanying personnel provide evidence of a current practice permit on an annual basis.

C2.2 The Non-Owner Facility Dentist is responsible to provide attestation and evidence of compliance with the *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* to the Medical Director of a Non-Hospital Surgical Facility (NHSF) or the Dental

Operator of the Dental Surgical Facility (DSF) within 90 days of request. See Appendix K – Quality Assurance and Improvement for forms and directions.

C2.3 Failure of the Non-Owner Facility Dentist to provide written confirmation of compliance may result in the loss of or withholding of CDSA "Full Accreditation" status from the Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF).

C3 Administrative Standards

C3.1 Ownership and the person with apparent care and control of the Accredited Dental Surgical Facility must be clearly identified to the CDSA and to the public.

C3.2 An organizational chart is required and must be updated as necessary and be available to all personnel.

C3.3 The duties and responsibilities of all personnel in the Accredited Dental Surgical Facility must be outlined in current written job descriptions.

C3.4 There must be adequate space, physically separate where appropriate, for business and administrative functions so as not to interfere with clinical care and support areas.

C4 Authorized Dentists Who Administer Deep Sedation or General Anaesthesia

Anaesthesia is determined by actual or likely impact on state of consciousness of the patient. See Appendix D – Definitions for definitions of deep sedation and general anaesthesia.

C4.1 Deep Sedation or General Anaesthesia must be provided in an accredited Non-Hospital Surgical Facility (NHSF) or an accredited Dental Surgical Facility (DSF).

C4.2 All Authorized Dentists administering deep sedation or general anaesthesia in an accredited NHSF or DSF must:

- Be an Authorized Dentist as approved by the CDSA.
- Hold current certification in BLS (every 12 months), ACLS and an Airway Management course approved by the CDSA (every 24 months).
- In the case of the provision of pediatric services in the Accredited Dental Surgical Facility, hold current certification in PALS and an Airway Management course with a pediatric component approved by the CDSA (every 24 months). See Appendix D – Definitions for definition of pediatric patients.

C4.3 All Authorized Dentists administering deep sedation or general anaesthesia in an Accredited Dental Surgical Facility must participate in mock drills that involve appropriate personnel for the management of life-threatening emergencies related to procedures performed in the Accredited Dental Surgical Facility. These mock drills must be performed every six months and be documented as part of the Accredited Dental Surgical Facility records. All personnel must sign a logbook that they attended the mock drills. Every Authorized Dentist in the NHSF or DSF must participate in mock drills every six months. Every Registered Nurse without an active appointment in an Alberta Health Services (AHS) Critical Care Role (Emergency, ICU, and PACU) in the NHSF or DSF must participate in mock drills every six months. Every Registered Nurse with an active appointment in an Alberta Health Services (AHS) Critical Care Role (Emergency, ICU, and PACU) in the NHSF or DSF must participate in mock drills every twelve months.

C5 Clinical Support Personnel

C5.1 All dental and nursing personnel who monitor patients (during surgery or in the recovery room) that undergo deep sedation or general anaesthesia must maintain a current certificate of proficiency in BLS and ACLS.

C5.2 In the case of provision of pediatric (defined in Appendix D – Definitions) anaesthesia services in the Accredited Dental Surgical Facility, current certification in BLS and PALS is required.

C5.3 The Authorized Dentist administering deep sedation or general anaesthesia must ensure that the recovery room registered nurse, who is monitoring the patient in the recovery room, is able to:

- Assess and maintain a patent airway.
- Be proficient in the use of a bag-valve-mask device (Ambu Bag).
- Monitor vital signs.
- Perform venipuncture.
- Record appropriate records.
- Record SpO2, heart rate and blood pressure at least every 15 minutes.
- Administer medications as required.
- Assist in emergency procedures, including cardiac arrest.
- Hold current BLS certification.
- Hold current ACLS certification.
- Hold current PALS certification, where the patient is a pediatric patient (defined in Appendix D – Definitions).

C5.4 One individual must be designated to have overall responsibility for all nursing and clinical personnel.

C5.5 One individual must be designated to have overall responsibility for opioids and other controlled drugs.

C5.6 One individual must be designated to have overall responsibility for the operating room policies and procedures.

C5.7 One individual must be designated to have overall responsibility for the recovery room policies and procedures.

C5.8 The following delegated functions must be provided only by qualified personnel who have received adequate training in each procedure:

- Mixing of medications.
- Administration of medications.
- Documentation of medications administered to patients.
- Monitoring of vital signs during Dental Surgical Services.
- Recovering patients from deep sedation or general anaesthesia.

D Patient Care

D1 Patient Care – Pre-Operative

D1.1 Patient Selection

D1.1.1 All patients undergoing deep sedation or general anaesthesia in a NHSF or DSF must be assigned an American Society of Anesthesiologists (ASA) Classification of

Physical Status by an Authorized Dentist or physician. See Appendix B – ASA and BMI Classification.

D1.1.2 Patients must be at least 2 years of age. For patients aged 2 – under 12 they must have a BMI between the 97th percentile and the 3rd percentile (see Appendix C – Growth Chart for Boys and Girls 2 – 9) and three or fewer well controlled comorbid conditions from the examples listed for ASA definitions. See Appendix B – ASA and BMI Classification.

Adult patients (12 years of age and older) must have a BMI less than 45.

ASA Class 4 patients may not be treated by an Authorized Dentist outside of hospital with either deep sedation or general anaesthesia.

D1.1.3 ASA Class 3 patients may be accepted only if the patient's disease entity could not reasonably be expected to be affected adversely by the anaesthetic or the Dental Surgical Service.

D1.1.4 Authorized Dentists may not provide either deep sedation or general anaesthesia to patients who are classified as ASA 4.

D1.1.5 Authorized Dentists may not provide either deep sedation or general anaesthesia to patients with a BMI greater than 45.

D1.1.6 All ASA Class 3 cases must be discussed between the regulated member performing the procedure and the Authorized Dentist or physician providing the deep sedation or general anaesthesia in advance of the scheduled treatment. Where the Authorized Dentist administers the deep sedation or general anaesthesia that Authorized Dentist must perform a pre-anaesthetic evaluation including a history and physical assessment. This must be documented and must take place in advance of the deep sedation or general anaesthesia.

D1.1.7 All discussions and assessments of ASA Classification and patient selection must consider the appropriateness of the NHSF or DSF setting, the pre-operative evaluation and care, and the intra-operative and post-operative requirements for safe performance of the procedure. This must be permanently documented on the patient's clinical record.

D1.1.8 ASA Physical Status Classification (see Appendix B – ASA and BMI Classification)
The latest version of the American Society of Anesthesiologists (ASA) physical status classification system (ASAPS) as approved by the ASA House of Delegates, October 15, 2014; readopted 2019.

ASA 1: A normal healthy patient.
Example: Fit, nonobese (BMI under 30), a nonsmoking patient with good exercise tolerance.

ASA 2: A patient with a mild systemic disease.
Example: Patient with no functional limitations and a well-controlled disease (e.g., treated hypertension, obesity with BMI under 35, frequent social drinker or is a cigarette smoker).

ASA 3: A patient with a severe systemic disease that is not life-threating.
Example: patient with some functional limitation as a result of disease (e.g., poorly treated hypertension or diabetes, morbid obesity, chronic renal failure, a bronchospastic disease with intermittent exacerbation, stable angina, implanted pacemaker).

ASA 4: A patient with a severe systemic disease that is a **constant threat to life.**
Example: Patient with functional limitation from severe, life-threatening disease (e.g., unstable angina, poorly controlled COPD, symptomatic CHF, recent (less

than three months ago) Myocardial infarction or stroke.

ASA 5: A moribund patient who is not expected to survive without the operation. The patient is not expected to survive beyond the next 24 hours without surgery. Examples: ruptured abdominal aortic aneurysm, massive trauma, and extensive intracranial hemorrhage with mass effect.

ASA 6: A brain-dead patient whose organs are being removed with the intention of transplanting them into another patient.

The addition of "E" to the ASAPS (e.g., ASA 2E) denotes an emergency surgical procedure. The ASA defines an emergency as existing "when the delay in treatment of the patient would lead to a significant increase in the threat to life or body part."

D1.1.9 In appropriate cases, the availability of an ''Advance Care Plan'' (representation agreement, advanced directive, ''living will'', ''do not resuscitate'' directive, etc.) should be ascertained, and its applicability to the proposed intervention should be determined and documented on the anesthetic assessment record.

D1.2 Patient Assessment and Care

D1.2.1 A patient must have a history and physical examination performed by a physician or Authorized Dentist within 90 days of the procedure and updated and signed within 2 weeks of the procedure by a licensed physician or Authorized Dentist. This must be documented, dated and signed, be current and be part of the patient's clinical record pre-operatively.

D1.2.2 An Authorized Dentist who administers the deep sedation or general anaesthesia must complete the pre-anaesthetic assessment.

D1.2.3 Each patient who is to undergo deep sedation or general anaesthesia must have a documented, dated and signed, pre-anaesthetic assessment not more than 2 weeks before the anaesthetic. Documentation must reflect determination of the patient's medical status (including ASA Classification) and the plan for appropriate anaesthetic care.

D1.2.4 The pre-anaesthetic assessment must include:

- A review of the patient's clinical record.
- A medical interview with the patient.
- A physical examination relative to anaesthetic aspects of care including; height, weight, heart rate, blood pressure and an examination of the airway.
- A review and ordering of tests as indicated.
- A review of request for medical consultation as necessary for patient.
- Assessment and planning of perio-operative care.
- Orders for pre-operative preparation such as fasting, medication, and other instructions as indicated.

Minimum fasting period	Amount and type of food ingested
8 hours	Heavy meal (i.e., meat, fried or fatty foods)
6 hours	Light meal (easy-digested carbohydrate, low protein, low fat) (i.e., toast and a clear fluid, noodles in a clear broth) After ingestion of non-human milk After ingestion of infant formula

4 hours	After ingestion of breast milk (no additions are allowed to pumped breast milk)
2 hours	After ingestion of clear fluids (i.e., water, fruit juice without pulp, black coffee)

D1.2.5 The patient or responsible adult must be given adequate opportunity and time to seek or provide information, to ask questions and to have a satisfactory explanation of the proposed choice of both the anaesthetic (by the Authorized Dentist) and the procedure (by the regulated member who is performing the procedure).

D1.2.6 The patient or legal guardian must provide signed Informed Consent for both the anaesthetic and the procedure and this must form part of the patient's clinical record.

D1.2.7 The patient's identity and signed informed consent and the nature and site of the proposed diagnostic or procedure must be verified immediately prior to the administration of deep sedation or general anaesthesia by:

- The Authorized Dentist administering the deep sedation or general anaesthesia.
- The regulated member performing the procedure.
- The patient.

D1.2.8 A Procedure Checklist must be completed by all members of the dental team to communicate safety checks at three critical points:

- Pre-operatively before the administration of anaesthesia (Briefing).
- Intra-operatively before treatment commences (Time Out).
- Post-operatively before the patient enters recovery phase (Debriefing).

D1.2.9 The Time Out process must include verification of the identity of the patient, the correct procedure, signed consent and communication of other pertinent information including; medication allergies, significant health conditions and anticipated problems.

D1.2.10 Completion of the Time Out must be documented.

D2 Patient Care – Intra-Operative – Anaesthesia

D2.1 The Authorized Dentist administering the deep sedation or general anaesthesia is directly responsible for the anaesthesia, the anaesthetic personnel and the anaesthetic status of the patient throughout the entire procedure (from induction of anaesthesia to the full recovery of the patient has taken place). The Authorized Dentist may not administer the deep sedation or general anaesthesia and perform the procedure.

D2.2 The Authorized Dentist administering the deep sedation or general anaesthesia must remain in continuous attendance throughout the entire anaesthetic procedure, from the time the first anaesthetic medication is administered and until the recovery phase commences.

The Authorized Dentist may not delegate (to a RN, regulated member, or second Authorized Dentist) the anaesthesia responsibilities of; continuously monitoring the patients clinical condition, continuously observing the anaesthetic monitors or being continuously present for the administration of the anaesthetic medications or agents. The Authorized Dentist may transfer the intra-operative anaesthesia and monitoring responsibilities to a second Authorized Dentist or Anaesthesiologist after following an explicit protocol for the hand-over of responsibility. During the administration of a deep sedation or general anaesthetic

a second team member (Regulated Member, RDA, or a RN) must be in the treatment room at all times.

D2.3 The regulated member performing the procedure is directly responsible for the procedure they are performing and the surgical status of the patient.

D2.4 It is the responsibility of the Authorized Dentist who administers the deep sedation and general anaesthesia to ensure that a second individual, other than the regulated member performing the procedure, is qualified to assist in the event of an emergency and is immediately available. It is a requirement that the second individual be a registered nurse whose competency must include the ability to perform the following, as reflected in qualifications, appropriate training and credentials:

- Assess and maintain a patent airway.
- Be proficient in the use of a bag-valve-mask device (Ambu bag).
- Monitor vital signs.
- Perform venipuncture.
- Record appropriate records.
- Record SpO2, heart rate and blood pressure as required.
- Administer medications as required.
- Assist in emergency procedures, including cardiac arrest.
- Hold current BLS certification.
- Hold current ACLS certification.
- Hold current PALS certification, where the patient is a pediatric patient (defined in Appendix D – Definitions).

D2.5 When an Authorized Dentist administers deep sedation or general anaesthesia, the patient must be continuously evaluated with at least the following:

- Visualization of some portion of the patient under appropriate lighting.
- Respiration rate, respiration effort and skin colour.
- Continuous pulse oximeter with audible signal recognition.
- End-Tidal CO2 (ETCO2) carbon dioxide monitoring for each patient, either by; nasal prongs, nasal pharyngeal airway, nose cone, laryngeal mask airway or by an endotracheal tube.
- Automatic non-invasive blood pressure (NIBP) apparatus to measure blood pressure with an appropriately sized selection of cuffs.
- Electrocardiogram (ECG) with audible signal recognition.
- Peripheral nerve stimulator whenever neuromuscular blocking agents are used.
- Agent-specific gas monitor must be used whenever inhalation anaesthetic agents, excluding nitrous oxide are used.
- Vital signs including; SpO2, heart rate and NIBP must be recorded at least every 5 minutes.

D2.6 When an Authorized Dentist administers deep sedation or general anaesthesia, devices and drugs that must be immediately available include:

- A stethoscope.
- Two independent sources of oxygen.
- A means of delivering positive pressure oxygen such as a self-inflating bag-valve-mask device (both in the operating room and the recovery room).
- Facilities that administer general anaesthesia, a video laryngoscope and appropriately sized blades.

- Facilities that administer general anaesthesia to children, appropriately sized pediatric blades for the video laryngoscope.
- An Emergency Resuscitation Cart that includes the following:
    - A cardiac monitor with defibrillator if administering deep sedation or general anaesthesia, including pediatric defibrillators pads if the facility treats children.
    - Apparatus to measure temperature.
    - Endotracheal tubes, stylets, supraglottic airways (LMA's), oral airways, nasal pharyngeal airways and facemasks (for BVM) in a selection of sizes appropriate to the expected range of patient sizes and ages; two functioning laryngoscopes and a variety of sizes of laryngoscope blades.
    - Magill Forceps, including appropriately sized Magill Forceps for children if the facility treats children.
    - IV supplies and accessory equipment such as syringes, needles, fluids. ECG leads, sponges, tape, etc. These must be stored in an orderly manner and be easily accessible.
    - Surgical airway kit.
    - A backboard for BLS if the surgical chair/table or recovery stretcher are not suitable.
    - Accredited Dental Surgical Facility Required Drug Supply as listed in Appendix A – Required Drug Supply.

D3 Patient Care – Intra-Operative – Surgical

D3.1 The regulated member performing the procedure and the dental team is responsible for the maintenance of sterile conditions in the extra-oral operating field, or aseptic conditions where appropriate, throughout the conduct of the procedure and for the post-operative care of the operative site.

D3.2 The regulated member performing the procedure and the authorized dentist performing the anaesthesia share responsibility for the post-operative care of the patient after discharge from the recovery room.

D3.3 Tissues sent for pathologic examination must have a process to document the tracking of the tissues and other specimens sent for pathologic examination that would include:

- Identity of the specimen sent.
- Patient name and a second identifier.
- Name of the person releasing the specimen and date and time.
- Method of transport: courier, mail, etc. (including waybill number if available).
- Name of the person transporting the specimen and date and time, where applicable.

D4 Patient Care – Recovery Room

The following *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* apply to management of the patient in the recovery phase, whether in a separate recovery room or on the operative table or in a dental operatory. The recovery phase begins after the surgery, or dental procedure has been completed and does not end until the patient has recovered from their deep sedation/general anaesthetic and obtained a pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System).

D4.1 The recovery phase of anaesthesia must occur in a dedicated, properly equipped and properly staffed recovery room. This dedicated recovery room may be a separate recovery room, or it may be the operating room/dental operatory if that room is not required for another case. A dedicated recovery room must be available for the patient's safe emergence from deep sedation or general anaesthesia.

D4.2 The Authorized Dentist administering the deep sedation or general anaesthesia must remain immediately available until the patient is extubated and has obtained a pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System).

D4.3 The Authorized Dentist administering the deep sedation or general anaesthesia must remain in continuous attendance, with the patient, until such time that the patient is stable, and their clinical condition is acceptable for the safe transfer of care to a properly trained recovery room nurse or Authorized Dentist.

D4.4 The Authorized Dentist administering the deep sedation or general anaesthesia, and the recovery phase personnel must follow an explicit protocol for the hand-over of responsibility to recovery phase personnel.

The Authorized Dentist, administering the deep sedation or general anaesthesia, must provide the recovery phase RN (or Authorized Dentist) appropriate information regarding the patients' clinical status, discuss any anticipated concerns and provide written orders for the attending nursing personnel or Authorized Dentist.

D4.5 A registered nurse or Authorized Dentist, trained in patient assessment and recovery phase care must remain in continuous attendance of the patient in the recovery room.

D4.6 Continuous assessment, continuous monitoring and continuous direct observation of each patient in the recovery phase by designated recovery phase personnel must occur.

D4.7 Recovery phase assessment and monitoring must include an initial measurement and charting of; blood pressure (by NIBP), heart rate (by SpO2), respiration rate, temperature and level of consciousness. The initial value of all these parameters must be recorded in the recovery phase record upon the patient entering the recovery phase.

They must also be measured, and recorded, at least every 15 minutes while the patient is in the recovery phase and until the patient has obtained a pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System).

D4.8 Recovery phase assessment and monitoring must include an initial and continuous measurements of pulse oximetry (SpO2). This must be a continuous SpO2 monitor (with a visual digital display, an auditory tone and an auditory alarm setting at a minimum of 90%). SpO2 must be continuously monitored (and recorded at least every 15 minutes) while the patient is the recovery phase; as well as be recorded upon discharge from the recovery phase.

D4.9 ECG monitoring must be immediately available for use on patients following deep sedation or general anaesthesia in the recovery phase.

D4.10 Suction, oxygen and an appropriately sized bag-valve-mask device must be immediately available in the recovery room.

D4.11 Intravenous and other medical/surgical supplies such as syringes, needles, fluids, ECG supplies, sponges, tape and medication required for patient care post-operatively must be immediately available in the recovery room.

D5 Patient Care – Discharge

D5.1 An Authorized Dentist or Anaesthesiologist administering deep sedation or general anaesthesia must remain on the premises of the Accredited Dental Surgical Facility until the patient meets documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System).

D5.2 In addition to the accepted validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System) a minimum of 30 minutes must elapse after the last parenteral anaesthesia medication (or inhalational agent) was administered before discharge.

D5.3 The Authorized Dentist administering deep sedation or general anaesthesia must provide a written discharge order. However, the actual decision for discharge, based upon established written criteria, may be delegated to trained recovery phase personnel.

D5.4 The patient must be accompanied by a responsible adult upon discharge from the Accredited Dental Surgical Facility.

D5.5 Appropriate verbal and written post-discharge instructions must be provided to the patient and an accompanying responsible adult.

D5.6 The patient and accompanying responsible adult must be provided with a 24-hour contact number or call centre number as part of the discharge instructions.

D5.7 Written instructions not to drive or operate hazardous equipment for 24-hours after deep sedation or general anaesthesia must be provided to the patient and accompanying responsible adult.

D5.8 Written instructions that provide information regarding the accessing of emergency care must be provided to the patient and an accompanying responsible adult at the time of discharge.

D5.9 Written directives must be provided to the patient and an accompanying responsible adult that instruct them to notify the Accredited Dental Surgical Facility in the event of any unexpected admission of the patient to a hospital within 10 days of treatment at the Accredited Dental Surgical Facility.

D5.10 Emergency transfer to the hospital must be initiated immediately for all patients who suffer an acute cardiac or cerebrovascular event.

D5.11 When a patient is transferred to hospital for any reason, the Authorized Dentist providing deep sedation or general anaesthesia is responsible for the communication of appropriate information regarding that patient to emergency room personnel at the hospital where patient is destined.

E Infection Prevention and Control

Refer to the CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* found at https://www.dentalhealthalberta.ca/patients-general-public-protection/public-protection/legislation/. These standards must be complied with in any facility.

E1 Occupational Health/Immunization

E1.1 Immunization standards are outlined in the CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* found at https://www.dentalhealthalberta.ca/patients-general-public-protection/public-protection/legislation/.

All personnel, including regulated members, must meet immunization requirements of the Accredited Dental Surgical Facility at time of employment or contract activity and throughout their time in the Accredited Dental Surgical Facility.

E1.2 Documentation of immunization status for all personnel must be appropriately filed and tracked in the Accredited Dental Surgical Facility for automatic notification of need for renewal. Personnel must comply with renewal requirements of the Accredited Dental Surgical Facility and present documented evidence of having done so.

E1.3 Immunization should be facilitated if immune status is unknown.

E1.4 Immunization Standards for Accredited Dental Surgical Facility personnel include the following outlined below:

1. Hepatitis B vaccine – highly recommended for all personnel at risk of potentially harmful contact with blood and body fluids.
2. Influenza vaccine – recommended for all personnel.
3. Measles (Rubella) vaccine – highly recommended for personnel who do not have a documented history or laboratory evidence of immunity. If this is lacking for any one of measles, mumps, or rubella, MMR vaccine should be obtained.
4. Rubella vaccine – required by law in Alberta for all personnel who may have face to face contact with patients and do not have a documented history of receiving rubella vaccine or a laboratory result indicating immunity.
5. Tetanus and Diphtheria Toxoids – recommended at 10-year intervals.
6. Tuberculosis Skin Testing – recommended for all personnel at the beginning of employment or contract activity in the Accredited Dental Surgical Facility.

E2 Air Flow and Traffic

E2.1 Air flow and quality in facilities must be monitored and maintained according to standards applicable for the type of procedure performed.

E2.2 Traffic in patient care areas should be restricted to authorized personnel.

E2.3 The Accredited Dental Surgical Facility must effectively be protected against the entrance of insects, animals, or the elements by closing doors, closed windows, screens, controlled air currents, or other effective means.

F Accredited Dental Surgical Facility Physical Requirements

F1 General Physical Requirements

F1.1 The Accredited Dental Surgical Facility must comply with all applicable building code and fire regulations.

F1.2 The Accredited Dental Surgical Facility should be wheelchair accessible.

F1.3 There must be easy access by an ambulance and stretcher for transfer of emergency cases to the hospital. The local ambulance service must verify in writing, the adequacy of access and egress in the Accredited Dental Surgical Facility.

F1.4 The Accredited Dental Surgical Facility must be physically adequate for the procedures performed, with a layout conducive to safe and private patient care, patient flow and infection prevention and control.

F1.5 The design of the Accredited Dental Surgical Facility must provide for:

- Administration areas.
- Patient waiting areas.
- Operating/treatment rooms, and recovery areas.
- An area restricted to personnel.
- The separation of clean utility, dirty utility and non-sterile storage.

F1.6 Traffic control systems should provide a minimum of cross-traffic.

F1.7 There must be adequate space for personnel and equipment to allow for the initiation of emergency resuscitation procedures including the monitoring of vital signs.

F1.8 Appropriate conveyances such as wheelchairs and/or stretchers must be readily available.

F1.9 An emergency lighting source must be available in all clinical areas, patient waiting areas and washrooms as well as in patient care areas unless natural light is available.

F1.10 Fire extinguishers, with supporting documentation of maintenance attached, must be available according to local standards.

F1.11 Floors must be smooth and washable in all patient treatment areas.

F2 Operating Room Standards

F2.1 The operating room must be large enough to accommodate required equipment, surgical personnel and anaesthetic personnel. Operating room size requirements depend on projected equipment and use:

- Operating room table/chair.
- Anaesthetic machine, as needed.
- Anaesthesiologist's chair or stool, as needed.
- Small equipment table, as needed.
- Anaesthetic drug cart.
- Extra emergency equipment that may be required (e.g., stretcher, defibrillator).

F2.2 Except where procedures do not require a sterile field, there must be enough clear space to allow the surgeon and assistants, when sterile, to move around the operating room table to gain access to both sides of the patient without contamination.

F2.3 Ceilings in operating rooms requiring a sterile field must be constructed of a smooth washable surface.

F2.4 Where sterile procedures are required and in the case of more than one operating room, there must be physical separation with doors between the operating room and rest of the Accredited Dental Surgical Facility.

F2.5 The operating table/chair must permit patient safety restraints and Trendelenburg positioning.

F2.6 The operating room table/chair must be suitable for the procedures performed including:

- Adequate range of movement for anaesthetic procedures.
- Adjustable headrest to facilitate intubation.

F2.7 Suitable surgical lighting and emergency lighting sources must be available.

F2.8 Electrical outlets must be accessible and adequate for all necessary equipment. Extension cords must be appropriately rated and used in a safe manner.

F2.9 In the event of power loss, there must be a system in place to provide suction, lighting, and power to anaesthetic equipment for a minimum of one-hour.

F2.10 Adequate suction for use exclusively by the anaesthesiologist must be available in the operating room.

F3 Recovery Room Standards

F3.1 There must be a recovery room that is separate from the operating room if dental procedures are carried out while other patients are recovering.

F3.2 The size of a separate recovery room will depend on projected use. It must accommodate the volume of patients expected for minimum of 2-hours operating room time, (e.g., 1-hour cases = 2 patients, .5-hour cases = 4 patients). It must allow easy access for transfer of a patient to or from a stretcher and for the initiation and performance of emergency procedures. (Examples of minimum sizes: (a. 2 stretchers - minimum 2.4 x 2.7 metres with an end door). (b. 1 stretcher - 1.4 x 2.4 metres with a side entrance + 1 recliner in a separate supervised space)).

F3.3 Suction and oxygen that each have sources of backup must be readily available for each patient in the recovery area.

F3.4 There must be ready access to a hand hygiene station or a sink for handwashing.

F3.5 There must be electrical outlets available to supply power to monitoring equipment. Extension cords must be appropriately rated and used in a safe manner.

F3.6 An emergency lighting source must be available in case of a power failure unless natural light is available.

G Equipment and Supplies

G1 Anaesthetic Gas Equipment

G1.1 All equipment for the administration of anaesthetics must be readily available, clean and properly maintained.

G1.2 Flammable and explosive anaesthetics must not be used in the Accredited Dental Surgical Facility.

G1.3 Anaesthetic materials must be well-organized and anaesthetic drugs properly stored.

G1.4 The following relate to the Medical Gas Piping System in an Accredited Dental Surgical Facility:

- G1.4.1 There must be adequate valving to ensure shut-off in case of an emergency and for maintenance of the main pipeline.
- G1.4.2 There must be local zone shut-off valves for isolation of specific areas.
- G1.4.3 There must be pressure relief valves to safely vent excessive pressures in all pressurized medical gas systems at all pressure levels.
- G1.4.4 There must be pressure gauges and an electrical alarm system to ensure continuous surveillance of pipeline pressures.

G1.5 The following relate to Anaesthetic Machine/Patient Circuit:

- G1.5.1 A new anaesthetic circuit or a new virus filter between a patient and an anaesthetic circuit must be used for each patient being treated with that circuit. If only the virus filter is being changed between patients, a barrier device must be utilized over the circuit.
- G1.5.2 The anaesthetic circuit must have a functioning low-pressure alarm if a positive pressure ventilator is used.
- G1.5.3 An oxygen analyzer with a low oxygen concentration alarm must be located in the patient circuit.
- G1.5.4 A pressure gauge must be located in the patient circuit.
- G1.5.5 An effective anaesthetic gas scavenging system must be employed when volatile anaesthetic gasses are used.
- G1.5.6 An adjustable pressure-limiting valve or "pop-off" valve must be included in the circuit.
- G1.5.7 A reservoir bag and mount must be included in the circuit.

G1.6 All anaesthetic gas delivery systems must contain fail safe systems ensuring a minimum of 21 percent oxygen.

G1.7 All medical gas equipment including anaesthetic machine, vaporizers, ECG and other monitors, and defibrillators must be serviced and calibrated at least annually by a qualified person. There must be documented evidence of this review and any recalibrations.

G1.8 Connections in medical gas systems must be non-interchangeable between gases. This includes large cylinder to wall installations, wall to hose, hose to anaesthetic machine and small cylinder to machine (pin-indexed). Gas hoses, cylinders, flow meters and control valves must be color coded and/or marked with name or chemical symbol at all junctions.

G1.9 A second supply of oxygen which is normally a spare cylinder with pressure gauge, regulator and wrench must be available.

G1.10 Vaporizers must be appropriate to the particular liquid agent in use. They must be pin-indexed.

G2 Drugs

G2.1 If an Authorized Dentist administers deep sedation or general anaesthesia; please refer to Appendix A for the list of Required Drugs in an Accredited Dental Surgical Facility.

G2.2 There must be a drug inventory record and a policy requiring periodic inspection of all drugs kept in the Accredited Dental Surgical Facility.

G2.3 Drugs must be stored in a manner suitable for their security, re-stocking, and renewal of outdated supplies.

G2.4 Drugs must be stored according to the manufacturer's recommendations such as refrigeration, as necessary.

G2.5 Drugs dispensed to patients at the time of discharge must be recorded on the clinical record, and verbal and written instructions for their use given to the patient and their accompanying responsible adult.

G2.6 Controlled Substances/Opioids:

1. One qualified individual which is either a Registered Nurse, Licensed Practical Nurse with medication skills, a physician or a regulated member must be designated to have overall responsibility for ensuring that controlled substances are handled in a manner that permits full auditing from acquisition through to patient administration.
2. There must be a log of controlled substances received by the Accredited Dental Surgical Facility that includes the name and quantity of the drug, and the date received.
3. All controlled substances must be kept in a designated and locked storage cabinet
4. The following information must be recorded on the log for each use of a controlled substance administered:
    - Patient name.
    - Drug name and amount removed from inventory.
    - Date.
    - Name of person who administered the drug.
5. On each day that controlled substances are used, there must be an end of day balance of the inventory of controlled substances via physical count and verified by the signatures of two qualified individuals.
6. Investigations conducted as a result of any discrepancies must be documented.

H Information and Records Management

The following is required:

- There must be an appropriate administrative structure to provide for the documentation, storage, and retrieval of all necessary patient information.
- Regulated members must comply with all laws respecting the collection, use, storage, and dissemination of information and records.

H1 Personnel Records

Appropriate personnel records must be maintained in confidential and privacy protected files that must include:

- Evidence of required credentials.
- Evidence of required certifications (e.g., BLS, ACLS, Airway Management and/or PALS and an Airway Management course with a pediatric component where required).
- A record of having been oriented to the Accredited Dental Surgical Facility and of having received adequate education with respect to their assigned duties.

Personnel records should also include:

- A completed application form.
- Continuing education records.
- Performance evaluations.
- Vaccination and immune status records.

H2 Accredited Dental Surgical Facility Records

H2.1 The Accredited Dental Surgical Facility must maintain an operative logbook which contains the name of the patient, an identifier number, the date, all procedures performed, and the name of the person performing the Dental Surgical Service and the name of the regulated member or physician who provides the deep sedation or general anaesthesia.

H2.2 A copy of all Unforeseen Event Reports for the Accredited Dental Surgical Facility must be kept in a separate file, as part of the Accredited Dental Surgical Facility Records.

H2.3 Copies of all Annual Reports for the Accredited Dental Surgical Facility must be retained as part of the Accredited Dental Surgical Facility Records.

H2.4 Copies of the required documentation related to Mock Drills including the subject, date and times conducted and the names of personnel in attendance must be retained as part of the Accredited Dental Surgical Facility Records.

H3 Patient Clinical Records

H3.1 Patients must have a Clinical Record that originates with the initial visit and that is incorporated into the ongoing clinical record of the patient.

H3.2 The Clinical Record must follow a uniform format within the Accredited Dental Surgical Facility and be accurate, complete, and legible.

H3.3 The Clinical Record must contain the following:

A. Informed Consent for the procedures and anaesthetic that is signed by the patient and witnessed.
B. A Pre-Operative Record that includes:
    - Medical history and physical examination.
    - Complete record of current medications.
    - Weight, height and BMI.
    - Age.
    - Allergies.
    - Laboratory results (as indicated).
C. A Record of Diagnosis and Treatment Plan.
D. An Anaesthetic Record – Where an Authorized Dentist administers deep sedation or general anaesthesia, a clinical record must be kept that includes the following:
    - Pre-anaesthetic assessment including the ASA Classification of the patient.
    - All drugs administered including dose, time, and route of administration.
    - Fluids administered.
    - Fluids lost (e.g., blood, urine) where it should be measured.
    - Measurements made by the required monitors; blood pressure (by automatic NIBP), heart rate (by ECG or SpO2), pulse oximetry (including percentage blood oxygen saturation) all must be recorded at least every 5 minutes.
    - IV site location, type and size of catheter.

- Any local anaesthetic agent used.
- Oral airway use, nasal airways use, supraglottic airway device used (size and type) and endotracheal tube used (size, type and oral or nasal).
- Complications and unforeseen events where applicable.
- Name of the Authorized Dentist administering the deep sedation or general anaesthesia.
- Anaesthetic start and stop time.
- Throat pack insertion and removal that is verified by both the Authorized Dentist, who administered the deep sedation or general anaesthesia, and by a second worker (RDA, RN or operating regulated member) and documented in the clinical record.

E. An Intra-Operative Procedural Record that includes:
- Description of the procedure.
- Name of the regulated member performing the procedures, the dental assistant and other personnel as applicable.
- A description of unexpected surgical events, where applicable.
- Other details as appropriate (e.g., instrument counts, tourniquet time, implants used, solutions used, patient position, and surgical time).

F. An Operative Report that includes:
- Post-operative diagnosis.
- Procedure performed.
- Date of procedure.
- Signature of dental provider.

G. Post-Anaesthetic Record (PAR) that includes:
- Date and time of admission.
- Recovery phase assessment and monitoring must include an initial and periodic measurements of; blood pressure (by NIBP), heart rate (by SpO2), respiration rate, temperature and level of consciousness. The initial value of all these parameters must be recorded in the PAR while the patient is in the recovery phase. They must also be recorded in the PAR in 15-minute intervals as well as be recorded upon discharge from the recovery phase.
- Recovery phase assessment and monitoring must include an initial and continuous measurements of pulse oximetry (SpO2). This must be a continuous monitor (with both a visual and auditory reading and an alarm setting at a minimum of 90%). This must be continuously monitored while the patient is in the recovery phase and recorded when the patient first enters the recovery phase and at least every 15 minutes while the patient is in the recovery phase as well as be recorded upon discharge from the recovery phase.
- Any medications administered, including dose, time, date, route, site, reasons, and effects.
- Any treatments given and effects of such treatments.
- Findings on an objective scoring system for documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System).
- Name of the recovery room nurse.
- Discharge criteria.
- Name of the accompanying responsible adult that the patient is being discharged into the care of.
- Written and verbal post-operative instructions provided to patient and accompanying responsible adult.

H3.4 The Accredited Dental Surgical Facility (NHSF or DSF), and the Dental Operator on behalf of the Accredited Dental Surgical Facility (NHSF or DSF), is the custodian of the information in the clinical record of pre-operative, anaesthetic, intra-operative and post-operative care.

H3.5 A Procedural Report, which must be generated on the date of the procedure, and a pathology report (if tissue removed), are the responsibility of the regulated member performing the procedure. The regulated member performing the procedure must retain these reports and other clinical records unless otherwise arranged within the Accredited Dental Surgical Facility.

H4 Unforeseen Event(s)

Unforeseen Event(s) in a NHSF or DSF are defined as untoward, undesirable, and usually unanticipated events or outcomes that caused harm or risk of harm to a patient, employee or visitor in the NHSF or DSF. An unforeseen event may or may not be a result of a deviation from the normal process of care.

Unforeseen Events must be documented, monitored and reported for safety, quality assurance and mandatory reporting purposes to the CDSA and potentially to the Minister of Health.

Unforeseen Events in a NHSF or DSF include the following:

- Death within the facility or within 10 days of a sedation procedure.
  Note: In the event of a death, the Medical Examiner must be notified prior to any further action to the body, including moving the body or removal of any lines or tubes from the body.
- Transfer from the facility to a hospital regardless of whether or not the patient was admitted.
- Unexpected admission to a hospital within 10 days of a procedure or anaesthetic performed in the facility. (see also discharge instructions to patients D5.5 and D5.6).
  Note: When notified of an unexpected admission of a patient to hospital within 10 days of the procedure in the Non-Hospital Dental Surgical Facility (NHSF) or Dental Surgical Facility (DSF), the Registrar may determine that written notification is not required when the reason given for admission to hospital is not related to the services provided in the facility.
- Clusters of infections among patients treated in the facility.
- Any procedure performed on the wrong patient, site or side.
- Missing or non-locatable opioids or Class 1 controlled substances.

In the event of an Unforeseen Event, a verbal report must be made via telephone (780-432-1012) to the CDSA within one business day of an Unforeseen Event or becoming aware of an Unforeseen Event.

A sample of an Unforeseen Event Report (UER) is found in Appendix F – Unforeseen Event Report (UER), Mandatory Notification. This Unforeseen Event Report (UER) must be completed online within two weeks of the telephone reporting.

There must be an internal process in the facility to allow for investigation and documentation of unforeseen events. The report must contain the following:

- Name, age and sex of the person affected.
- Medical history of the person affected and ASA Classification.
- Name of witness(es) to the event.
- Date and name of procedure, if applicable.
- Nature of the event and treatment rendered.
- Analysis of reasons for the event.
- Outcome.
- Patient clinical record.

In the event of a death within the NHSF or DSF, the Medical Examiner must be notified prior to moving the body or removal of any lines or tubes from the body.

The CDSA will review the circumstances with the Dental Operator, Non-Owner Facility Dentist, or NHSF and may consult with other practitioners or experts to determine risk of harm to patients. If necessary, the CDSA may suspend the accreditation of any NHSF or DSF on a suspicion of continuing risk. An investigation of the NHSF or DSF will then be initiated as soon as is reasonably possible.

Copies of all Unforeseen Events for the NHSF or DSF must be kept as part of the NHSF or DSF Records. The number and types of Unforeseen Events in a NHSF or DSF for a particular year must form part of the Accredited Dental Surgical Facility Annual Report.

H5 Annual Report

H5.1 A table outlining Annual Reporting Requirements is in Appendix G – Annual Report Table – Types of Procedures by Case.

H5.2 A NHSF or DSF must complete and submit an Annual Report to the CDSA that includes the information regarding services provided in the NHSF or DSF during the previous calendar year, by a published date specified by the CDSA.

H5.3 Information that must be included in the Annual Report document includes:

- The table that records the number of cases of deep sedations or general anaesthetics performed in the NHSF or DSF, categorized as adult or pediatric services and related to the types of Dental Surgical Services by case performed in the NHSF or DSF as follows:
  - General including Maintenance, Restorative, Surgical or Combination; or
  - Oral and Maxillofacial Surgery.
- The number of Unforeseen Events.

The name(s) of any regulated member and physician whose access to perform services anaesthetic or surgical in the NHSF or DSF was prevented or reduced, or privileges not renewed, and the reasons for it.

H6 Storage and Retention of Patient and Accredited Dental Surgical Facility Records

H6.1 Unforeseen Events Reports must be accessible for a minimum of ten (10) years following the date of the unforeseen event for adults; and for minors must be accessible for a minimum period of ten (10) years past the patient's age of majority. The age of majority in Alberta is eighteen (18) years of age. In the event of a patient becoming deceased, the retention period is not changed.

H6.2 According to the CDSA *Standard of Practice: Patients Records,* patient records must be kept for a minimum of ten (10) years following the last date of service to the adult patient; and for minors must be accessible for a minimum period of ten (10) years past the patient's age of majority. The age of majority in Alberta is eighteen (18) years of age. In the event of a patient becoming deceased, the retention period is not changed.

H6.3 Notwithstanding the above, the patient records of all dependent adults must be kept indefinitely. The age of majority in Alberta is eighteen (18) years of age. In the event of a patient becoming deceased, the retention period is not changed.

I Safety Standards

I1 General Accredited Dental Surgical Facility and Patient Safety

I1.1 Mock drills to prepare employees for emergencies must be carried out every six months. These must be recorded and supporting documentation must include the topic(s), the dates and times conducted, and the names of personnel in attendance.

I1.2 The Accredited Dental Surgical Facility must have written plans for emergencies as listed below:

- Fire.
- Power loss.
- Equipment failure.
- Cardiopulmonary arrest.
- Anaphylaxis.
- Malignant hyperthermia.
- Unauthorized intruder.
- Emergency transfer to hospital.

I1.3 The regulated member performing the procedure must ensure the safe use of all surgical equipment and ensure that all operating room personnel have been instructed in safety precautions specific to each as outlined in manufacturer's instructions such as electrocautery and lasers.

I1.4 There must be written safety policies and procedures. As a minimum, they must include information on the following:

- General safety.
- Medical compressed gases.
- Infection prevention and control.
- Biohazardous waste.
- Electrical safety.
- Fire safety.
- Medical emergencies.

I2 Medical Compressed Gases

I2.1 All new or modified non-flammable medical gas piping systems must be designed, installed, and tested in accordance with the Alberta Building Code.

I2.2 All non-flammable medical gas piping systems must be verified by a Safety Code Officer with Building Group 5-C Certification prior to being put into service. A letter of verification must be kept on file.

I2.3 All non-flammable medical gas piping systems must be tested annually for verification of pressure at every outlet with a flow, and verification of vacuum pressure for vacuum outlets. Documentation of the annual checks must be recorded by an Authorized Dentist, medical anaesthesiologist or a certified technician and a letter of verification must be kept on file.

I2.4 The following list must be posted in plain view where the gases are stored for the information of personnel:

I2.4.1 Never permit oil or grease to come in contact with cylinders, valves, regulators, gauges, or fittings.

I2.4.2 Cylinders must be stored in designated places away from the operating field where they will not be knocked over or damaged by passing or falling objects.

I2.4.3 Cylinders must be protected from direct sunlight.
I2.4.4 Cylinders in use must be securely chained to a solid object, or in a secure base, to prevent their tipping.
I2.4.5 Full cylinders must be used in rotation in the order that they are received from the supplier.
I2.4.6 Never use cylinders for rollers, supports or for any purpose other than to carry gas.
I2.4.7 Where caps are provided for valve protection such caps must be kept on cylinders except when cylinders are in use.
I2.4.8 Never tamper with the safety devices in valves or cylinders.
I2.4.9 Never attempt to repair or alter cylinders or refill cylinders.
I2.4.10 Never attempt to use gases in cylinders not bearing a contents label or cylinder having a label all of which is not completely legible.
I2.4.11 Never use oxygen from a cylinder without reducing the pressure through a suitable regulator intended for that purpose only.
I2.4.12 Never permit oxygen to enter the regulator suddenly. Open the cylinder valve slowly.
I2.4.13 Fully open the valve when the cylinder is in use.
I2.4.14 Never interchange oxygen regulators, hose, or other appliances with similar equipment intended for use with other gases.
I2.4.15 Never hold a gloved hand over the outlet to test the pressure. A serious burn may result.
I2.4.16 Never heat cylinders above room temperature or allow a flame to play on them.
I2.4.17 Never use oxygen in place of compressed air as a pressure medium to blow out obstructed pipelines, to operate pneumatic tools or to build up pressure in tank containing oils or other flammable materials. Nitrogen is the preferred gas for blowing out pipelines. Clean compressed air free of water or oil may also be used.
I2.4.18 Oxygen must never be used to blow dust out of clothing or to freshen air in a closed place. Serious burns may result from such practices.
I2.4.19 Close all oxygen cylinder valves when the cylinders are empty.
I2.4.20 At the start of each operating day turn on oxygen regulator only, then turn oxygen on at the machine.
I2.4.21 Before any maintenance or repair work is done in any building where general anaesthetics are being administered and which would involve interrupting oxygen flow, the anaesthesiologist must be informed immediately and an oxygen analyzer must be used to check that lines have not been switched. This does not apply to the periodic exchange of tanks.

I3 Electrical

Electrical Safety must meet or exceed standards contained in the most recent version of the *Canadian Electrical Code*, as determined by an electrician or inspector.

I4 Fire

Fire safety requirements must meet or exceed standards contained in the most recent version of the *Alberta Fire Code*, as determined by a qualified contractor or inspector.

J Concerns and Complaint Management

J1.1 There must be a Concerns and Complaints Policy and protocol for the Accredited Dental Surgical Facility.

J1.2 There must be a Concerns and Complaint Management Process in place that is known to all personnel.

J1.3 A Concerns and Complaint Manager must be designated for the Accredited Dental Surgical Facility as part of patient care management.

K Quality Assurance and Improvement

Accreditation by the CDSA requires that quality assurance and improvement programs are in place so that high standards of patient care can be demonstrated. The purposes of these programs are to address the scope of the Accredited Dental Surgical Facility's health care delivery services and how the quality improvement plan for these services is assessed. These programs should identify potential problems, determine the cause of problems, and implement actions to eliminate or improve them. Many of the components of these programs can be conducted by other personnel but results should be reviewed at least annually by the Dental Operator.

The following outline provides for a quality improvement program in Dental Surgical Facilities:

K1 Structure

Examples:

K1.1 Accredited Dental Surgical Facility Environment.
- Maintenance and space requirements.

K1.2 Accredited Dental Surgical Facility Equipment.
- Routine testing.
- Review of record maintenance and service requirements.

K1.3 Accredited Dental Surgical Facility Personnel.
- Numbers and types of personnel required.
- Performance evaluations.

K2 Process

Examples:

K2.1 Clinical Care.
- Review of procedures in light of new technology or practice standards.
- Case reviews/audits with description of problems and recommendations to prevent future occurrences.

K2.2 Mock Drills.
- Review of safety procedures and results of mock drills.
- Attestation of proficiency at Accreditation Assessment.

K2.3 Patient/Clinical Records.
- Audits of completeness, legibility, etc.

K3 Outcome

Examples:

K3.1 Infection Rates.
K3.2 Events/Complications.
K3.3 Case Review Audits.
K3.4 Patient Satisfaction.
K3.5 Concerns and Complaint Management.

L Accredited Dental Surgical Facility Manuals

L1 Accredited Dental Surgical Facility Policy and Procedure Manual

Recommended standards formats for Accredited Dental Surgical Facility Policy and Procedure Manual(s) are in Appendix I – Sample Format Accredited Dental Surgical Facility – Policy and Appendix J – Sample Format Accredited Dental Surgical Facility – Procedure.

L1.1 An Accredited Dental Surgical Facility Policy and Procedure Manual(s) must be kept regarding the following:

- Statements of policy that are consistent with the goals of the organization and the CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.
- All routine personnel, clinical and administrative procedures and protocols.

L1.2 The Dental Operator or a designated person must ensure that all required policies and procedures are established, maintained, written, and implemented.

L1.3 All Accredited Dental Surgical Facility Policies and Procedures must be signed by the Dental Operator or a designate as developed.

L1.4 All Accredited Dental Surgical Facility Policies and Procedures must be reviewed and signed off on every four years.

L1.5 The Accredited Dental Surgical Facility Policy and Procedure Manual(s) must be available to all relevant personnel. If there is more than one copy, then each must be numbered to ensure changes are made in identified manual(s). One copy should be identified as the master copy. As changes are made, copies of past policies and procedures must be kept in a separate file for management and legal purposes.

L1.6 The Accredited Dental Surgical Facility Policy and Procedure Manual(s) format must be consistent, standardized and allow for identifiable recognition as policy or procedure.

L1.7 Current Accredited Dental Surgical Facility Policy and Procedure Manual(s) must be readily available in the appropriate work area.

L1.8 If the Accredited Dental Surgical Facility Policy and Procedure Manual(s) is/are separated into several work areas, one master manual must be maintained in a central location in the Accredited Dental Surgical Facility. Repetitive routines, such as cleaning protocols, should be summarized and posted on walls in actual work areas to assist with compliance.

L1.9 The Dental Operator or a designated member of personnel must ensure that Accredited Dental Surgical Facility Policy and Procedure Manual(s) are current and accurate.

L1.10 Each Accredited Dental Surgical Facility Policy and Procedure Manual(s) must contain a table of contents identifying a complete list of policies, procedures and processes that are provided, as well as support processes, equipment requirements and related routines in the Accredited Dental Surgical Facility.

L1.11 All personnel, including the Dental Operator, involved with the procedures must have knowledge of the written procedures (and should be involved in the documentation of changes for the Accredited Dental Surgical Facility Procedure Manual(s) with respect to the procedures each provides).

L1.12 Related information in an Accredited Dental Surgical Facility Policy and Procedure Manual(s) must be consolidated into one section.

L1.13 Procedures performed by an Authorized Dentist must be those approved for the Accredited Dental Surgical Facility.

L1.14 A process to assess compliance with policies and procedures must be in place.

L1.15 All new personnel must be oriented by qualified personnel, upon hiring to a maximum of 30 days of the date of commencement of employment, to the Accredited Dental Surgical Facility Policy and Procedure Manual(s). The extent of a step-by-step orientation of new personnel to each procedure will depend on the specific role of the new member, the risk of injury or damage, and implications of non-compliance.

L1.16 Personnel who perform or assist in the performance of Dental Surgical Services are responsible for updating (or informing the appropriate person of a need to update) information with respect to the procedures that they perform.

L1.17 A communication process must be established to inform the necessary personnel of changes in policies, procedures, updates, and new procedures.

L2 Accredited Dental Surgical Facility Equipment Manual(s)

L2.1 Accredited Dental Surgical Facility Equipment Manual(s) must be kept regarding the following:

- A list of contact personnel and phone numbers.
- Manufacturer's operating and troubleshooting instructions.
- Preventative maintenance schedule.
- Log and record of repairs.

L2.2 Equipment, computer and safety manual(s) must be available and accessible at all times, with current contact information.

Appendix A – Required Drug Supply

The following is a list of required drugs where an Authorized Dentist administers either deep sedation or general anaesthesia in an Accredited Dental Surgical Facility. The drugs must be on site in a non-expired state, appropriately preserved, packaged and ready for use.

A. Oral

1. Acetylsalicylic acid (ASA) 81 mg non-enteric coated chewable tablets.
2. Nitroglycerin spray.
3. Agents for the management of hypoglycemia.

B. Inhaled

1. Salbutamol (in the form of a metered Dose Inhaler [MDI]).

C. Intravenous

1. Atropine.
2. Benzodiazepine (e.g., Midazolam).
3. Beta Blocker.
4. Dantrolene Sodium (Dantrium) enough for a first dose (when depolarizing neuromuscular blocking agents and/or volatile anaesthetic gases are used).
5. Diphenhydramine.
6. Epinephrine.
7. Ephedrine (subcutaneous and intravenous).
8. Flumazenil (when benzodiazepines are used for IV sedation).
9. Furosemide.
10. Glucose 50 percent.
11. Hydralazine or Nifedipine.
12. Hydrocortisone.
13. Lidocaine, bolus doses and one infusion bag.
14. Naloxone (when Fentanyl is used for IV sedation).
15. Neostigmine (when non-depolarizing neuromuscular blocking agents are used).
16. Phenylephrine.
17. Procainamide or Amiodarone.
18. Short-acting muscle relaxant (Succinylcholine).
19. Sodium bicarbonate including pediatric vials (if facility treats children).
20. Sterile water or saline for dilution.
21. Verapamil or Adenosine.

Appendix B – ASA and BMI Classifications

ASA Physical Status Classification System

The latest version of the American Society of Anesthesiologists (ASA) physical statue classification system (ASAPS) as approved by the ASA House of Delegates, October 15, 2014; readopted 2019.

ASA 1: A normal healthy patient.
Example: Fit, nonobese (BMI under 30), a nonsmoking patient with good exercise tolerance.

ASA 2: A patient with mild systemic that is not life-threatening.
Example: Patient with no functional limitations and a well-controlled disease (e.g., treated hypertension, obesity with BMI under 35, frequent social drinker or is a cigarette smoker).

ASA 3: A patient with severe systemic disease that is not life threatening.
Example: Patient with some functional limitation as a result of disease (e.g., poorly treated hypertension or diabetes, morbid obesity, chronic renal failure, a bronchospastic disease with intermittent exacerbation, stable angina, implanted pacemaker).

ASA 4: A patient with severe systemic disease that is a **constant threat to life.**
Example: Patient with functional limitation from severe, life-threatening disease (e.g., unstable angina, poorly controlled COPD, symptomatic CHF, recent (less than three months ago) myocardial infarction or stroke

ASA 5: A moribund patient who is not expected to survive without the operation. The patient is not expected to survive beyond the next 24 hours without surgery.
Examples: ruptured abdominal aortic aneurysm, massive trauma, and extensive intracranial hemorrhage with mass effect.

ASA 6: A brain-dead patient whose organs are being removed with the intention of transplanting them into another patient.

The addition of "E" to the ASAPS (e.g., ASA 2E) denotes an emergency surgical procedure. The ASA defines an emergency as existing "when the delay in treatment of the patient would lead to a significant increase in the threat to life or body part."

Body Mass Index (BMI) Formula

Body Mass Index is a simple calculation using a person's height and weight.

The formula is BMI = kg/m^2 where kg is a person's weight in kilograms and m^2 is their height in metres squared. A BMI of 25.0 or more is overweight, while the healthy range is 18.5 to 24.9 BMI applies to most adults 18 – 65 years.

Appendix C – Growth Chart for Boys and Girls 2 – 9

Boys 2 – 9

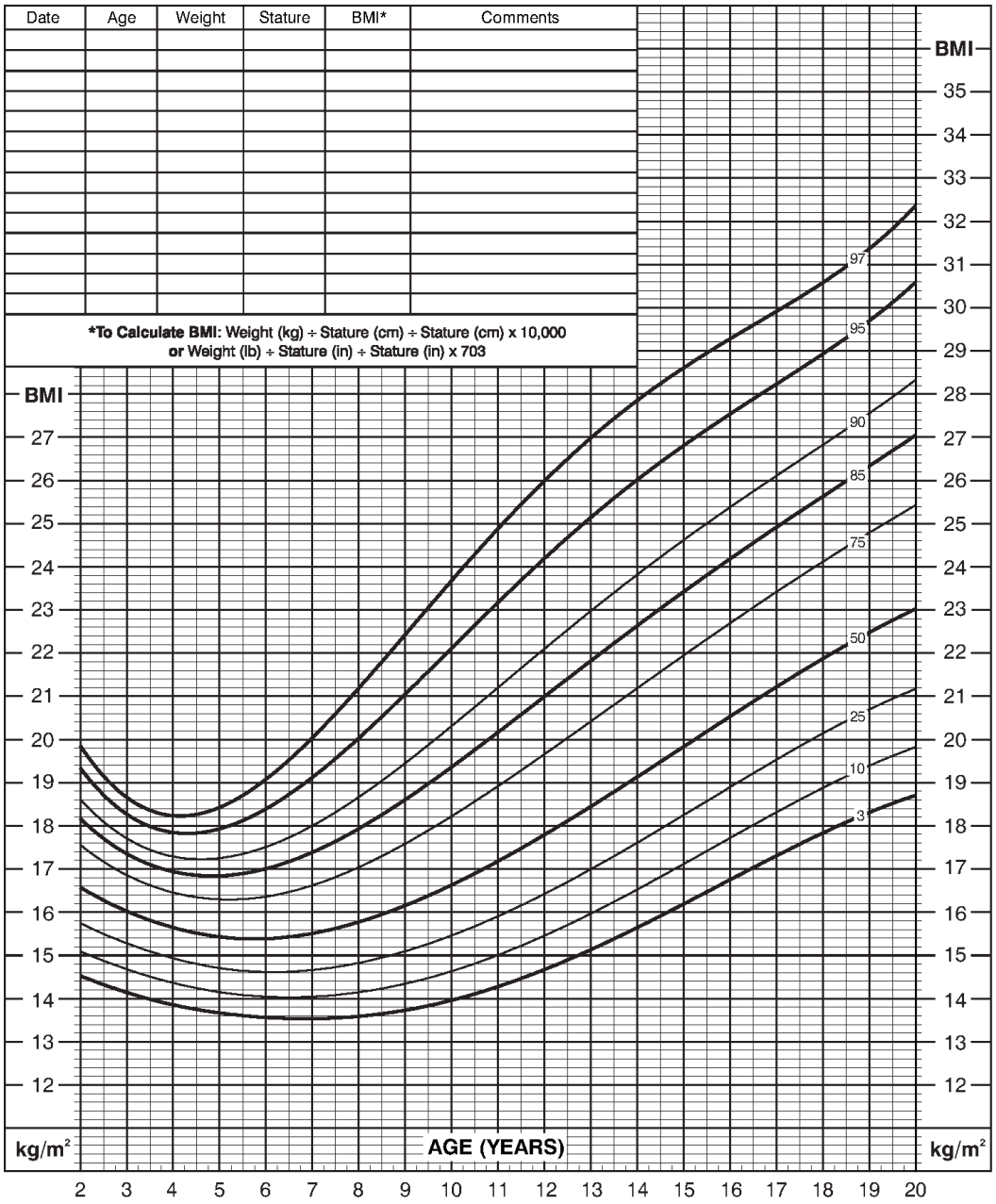
2 to 20 years: Boys
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI:** Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

SAFER • HEALTHIER • PEOPLE™

https://www.cdc.gov/growthcharts/clinical_charts.htm

Girls 2 – 9

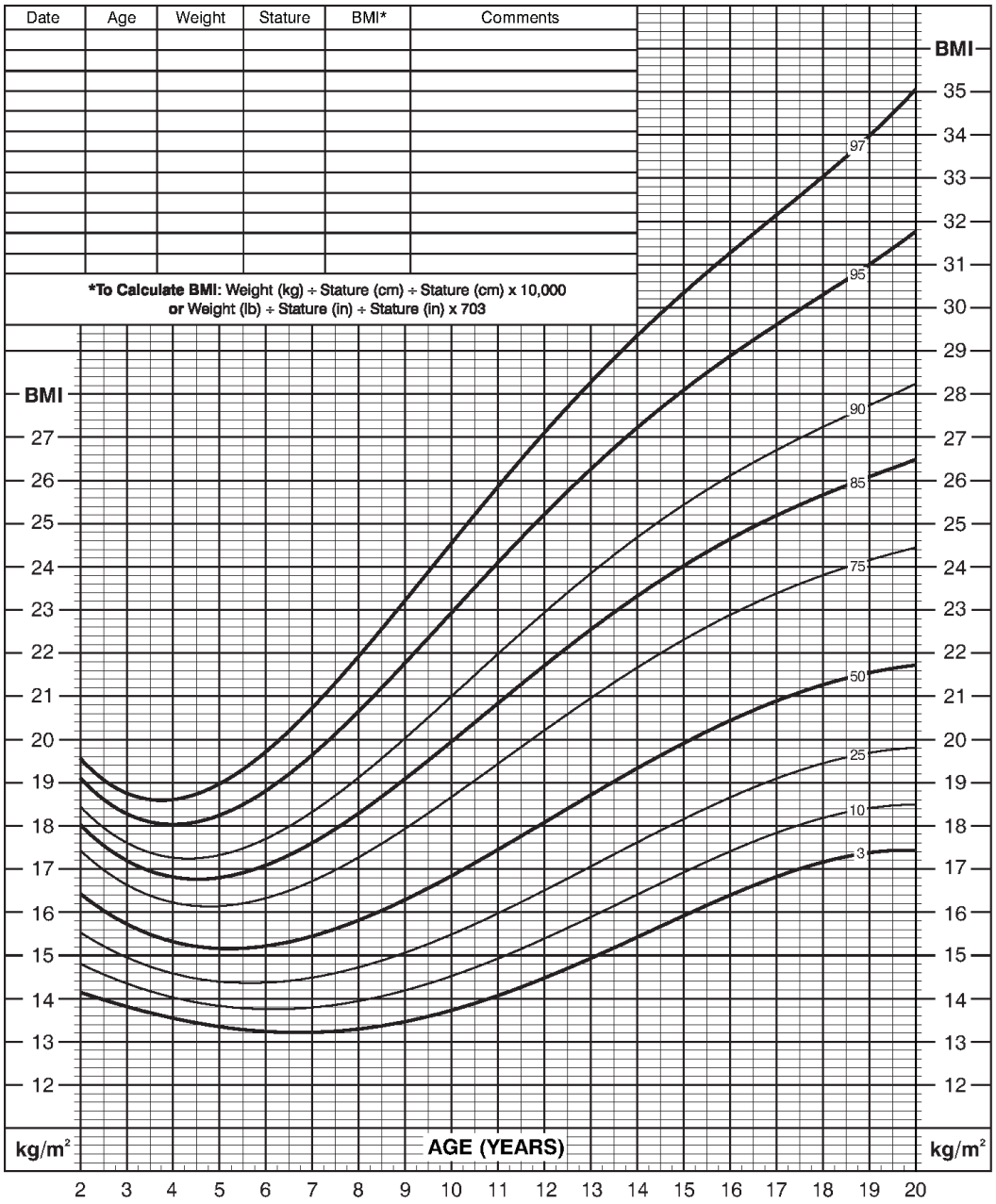
2 to 20 years: Girls
Body mass index-for-age percentiles

NAME _____

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

***To Calculate BMI:** Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

SAFER • HEALTHIER • PEOPLE™

https://www.cdc.gov/growthcharts/clinical_charts.htm

Appendix D – Definitions

Accredited Dental Surgical Facility – a Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF) that has met the requirements for accreditation under the *Health Professions Act* and has been granted "Full Accreditation" status or "Provisional Accreditation" status by the Dental Facility Accreditation Committee (DFAC). An Accredited Dental Surgical Facility must be accredited by law. See A2 Legislation page 55.

Advanced Cardiac Life Support (ACLS) – is a course that is designed for healthcare professionals who either direct or participate in the management of cardiopulmonary arrest and other cardiovascular emergencies. This advanced course builds on the foundation of basic life support (BLS) skills.

Airway Management Course – Airway Management and an Airway Management course with a pediatric component are designed for healthcare professionals who initiate and direct in the management of anesthetized patients to facilitate oxygenation and mechanical ventilation.

College of Dental Surgeons of Alberta (CDSA)

American Dental Board of Anesthesiology (ADBA)

Anaesthesia (Deep Sedation and General Anaesthesia) – the CDSA requires two categories of anaesthesia, deep sedation and general anaesthesia to be provided in an Accredited Dental Surgical Facility.

Authorized Dentist – a regulated member who has been approved by the CDSA to administer either deep sedation or general anaesthesia. The Authorized Dentist must:

- successfully complete the National Dental Specialty Examination (NDSE) in Oral and Maxillofacial Surgery; or
- successfully complete a minimum 24 consecutive month program for a Commission on Dental Accreditation (CODA) accredited post-graduate program in dental anaesthesia and, if graduated after 2014, have been successful and passed part 1 of The American Dental Board of Anesthesiology (ADBA) board examination process and within 24 months of graduation have successfully passed part 2 of The American Dental Board of Anesthesiology (ADBA) certification; or
- successfully complete a minimum 24 consecutive month program from a Canadian graduate program in dental anaesthesia and have successfully passed (both part 1 and part 2) of The American Dental Board of Anesthesiology (ADBA) certification; or
- any registered general regulated member or registered dental specialists who can demonstrate to the Registrar their competency.

Automated External Defibrillator (AED) – is a portable electronic device that can analyze the heart's rhythm and, if necessary, deliver an electrical shock, or defibrillation, to help the heart re-establish an effective rhythm.

Basic Life Support (BLS) – is the foundation for saving lives. It is a course which teaches single-rescuer and team basic life support skills, with a focus on recognizing life-threatening emergencies, giving high-quality chest compressions, delivering appropriate ventilations, providing early use of an AED, and team dynamics.

Bag-Valve-Ventilation – the process of providing oxygenation or assisted ventilation by using a bag-valve-mask device (e.g., Ambu bag).

Body Mass Index (BMI) – is a measure of body size; indicating whether a person is underweight or if they have a healthy weight, excess weight, or obesity. Body Mass Index is calculated as (weight in kilograms) divided by (height in metres)^2.

Cardiopulmonary Resuscitation (CPR) – is the manual application of chest compressions and ventilations to patients in cardiac arrest, done in an effort to maintain viability until advanced help arrives. This procedure is an essential component of basic life support (BLS).

Chronic Obstructive Pulmonary Disease (COPD) – is a term used to describe progressive lung diseases including emphysema, chronic bronchitis, and refractory (non-reversible) asthma.

Congestive Heart Failure (CHF) – heart failure in which the heart is unable to maintain an adequate circulation of blood in the bodily tissues or to pump out the venous blood returned to it by the veins.

Commission on Dental Accreditation of Canada (CDAC) – is the body responsible for accrediting dental, dental specialty, dental residency, dental hygiene and dental assisting education programs in Canada. CDAC also accredits dental services. In Quebec, dental services accredited by ODQ are recognized by CDAC.

Commission on Dental Accreditation (CODA) – sole agency to accredit dental and dental-related education programs conducted at the post-secondary level. CODA accredits dental schools and programs including advanced dental education programs and allied education programs in the United States.

Deep Sedation and General Anaesthesia are as defined by the American Society of Anesthesiologists (ASA):

Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused 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 Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, 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.

Because sedation is a continuum, it is not always possible to predict how an individual patient will respond. Hence, practitioners intending to produce a given level of sedation should be able to rescue*** patients whose level of sedation becomes deeper than initially intended. Individuals administering Moderate Sedation/Analgesia ("Conscious Sedation") should be able to rescue*** patients who enter a state of Deep Sedation/Analgesia, while those administering Deep Sedation/Analgesia should be able to rescue*** patients who enter a state of General Anesthesia.

** Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.

*** Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia and hypotension) and returns the patient to the originally intended level of sedation. It is not appropriate to continue the procedure at an unintended level of sedation.

Dental Facilities Accreditation Committee (DFAC) – accredits dental facilities: Non-Hospital Surgical Facilities (NHSFs) and Dental Surgical Facilities (DSFs).

Dental Surgical Facility (DSF) – a facility where dental surgical services are provided and is accredited by the College of Dental Surgeons of Alberta.

Dental Operator – a Dental Operator is a regulated member who is an Operator of a DSF.

Dental Surgical Services (DSS) – services performed by regulated members such as surgical, diagnostic or anaesthetic that must be provided in an Accredited Dental Surgical Facility.

Discharge Criteria – the standards that are to be met when patients are being discharged from the clinic/facility. Patients must meet documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System) prior to discharge. It is the regulated member's responsibility to ensure that a patient is sufficiently recovered to leave under the appropriate care of a relative or other caregiver.

Electrocardiogram (ECG) – the process of recording the electrical activity of the heart over a period of time using electrodes placed over the skin.

Mock Emergency Drill – a dedicated clinical session, which takes place within the dental office or accredited dental surgical facility, in which all team members practice the management of medical and/or anaesthetic emergencies, as if an actual emergency occurred.

National Dental Specialty Examination (NDSE) – is used by many provincial dental regulatory authorities as part of the requirement for licensure as a specialist and is administered by The National Dental Examining Board of Canada (NDEB).

Non-Hospital Dental Practice (NHDP) – any dental office where a dentist provides dental services to patients, which is not accredited by the College of Dental Surgeons of Alberta and/or by the College of Physicians and Surgeons of Alberta.

Non-Hospital Surgical Facility (NHSF) – non-hospital diagnostic and treatment facilities, in which medical and Dental Surgical Services are deemed as having sufficient risk of potential harm to a patient. Dental Surgical Services may be performed in these facilities. These facilities must register with and maintain accreditation by the College of Physicians and Surgeons of Alberta (CPSA) and the College of Dental Surgeons of Alberta (CDSA) as a Non-Hospital Surgical Facility (NHSF).

Non-Invasive Blood Pressure (NIBP) – manually or automatically records blood pressure with a pressure cuff.

Non-Owner Facility Dentist (NOFD) – a Non-Owner Facility Dentist is a regulated member who provides procedures in a NHSF or DSF but is not the owner or operator of the facility.

Operator – means:

- in the case of a surgical facility designated under Part 2, Division 1 of the *Health Facilities Act,* the person named as the operator in the designation.
- in the case of any other Dental Surgical Facility, the registered owner or the person who has apparent care and control of the facility.

Operatory – a room or other area with special equipment and facilities for dental procedures.

Oral and Maxillofacial Surgeon (OMFS) – specialized in surgery of the face, mouth and jaws.

Pediatric Advanced Life Support (PALS) – is an advanced resuscitation course that is designed for healthcare professional who initiate and direct advanced life support in pediatric emergencies in children.

Pediatric Patient – a person between 2 years to under 12 years of age.

Pediatric Services – anaesthetic and Dental Surgical Services provided to children less than or equal to 12 years of age. Children less than the age of 2 years must be treated in a hospital and cannot receive services in a NHSF or DSF.

Physician – a regulated member of the College of Physicians and Surgeons of Alberta.

Post Anaesthesia Care Unit (PACU) – referred to as post-anaesthesia recovery that is made up of a team of nurses who have extensive training in critical care acting under the direct supervision of an Authorized Dentist or Anaesthesiologist.

Post Anaesthesia Record (PAR) – a time-based record of events that reflects the patient status on admission and discharge from the Recovery Phase as determined by a qualified regulated health professional and by pre-set discharge protocols.

Procedure – dental treatment and services that include Dental Surgical Services.

Recovery Phase – after the administration of all anaesthesia agents has stopped and the surgery, or the dental procedure has been completed a phase of patient care known as the recovery phase begins. The recovery phase ends when the patient has meets documented pre-determined recovery criteria using a validated grading system (e.g., a score of 9 on the modified Aldrete Scoring System) and a minimum of 30 minutes must elapse after the last parenteral anaesthesia medication (or inhalational agent) was administered before discharge.

Recovery Room (area) – a dedicated recovery area may be a separate recovery room or it may be the operating room/dental operatory, if that room is not required for another case. The recovery phase of sedation or anaesthesia must occur in a dedicated, properly equipped and properly staffed recovery room. A dedicated recovery room must be available for the patient's safe emergence from mild sedation, moderate sedation, deep sedation or general anaesthesia.

Registered Dental Assistant (RDA) – a regulated member of the College of Alberta Dental Assistants.

Registered Nurse (RN) – a regulated member of the College and Association of Registered Nurses of Alberta.

Regulated Member – General Practitioner [Dentist], Endodontist, Oral and Maxillofacial Surgeon, Orthodontist and Dentofacial Orthopedist, Pediatric Dentist, Periodontist, Prosthodontist, Oral Medicine and Pathology, Oral and Maxillofacial Radiologist and Public Health Dentists registered with the College of Dental Surgeons of Alberta.

Resuscitation – is the procedure to support and maintain breathing, circulation, and heartbeat for a child or adult.

Reversal Agents – any drug used to reverse the effects of anaesthetics, opioids or potentially toxic agents. Reversal agents include Flumazenil for benzodiazepines and Naloxone for opioids.

Unforeseen Events – unforeseen events are defined as untoward, undesirable, and usually unanticipated events or outcomes that caused harm or risk of harm to a patient, employee or visitor. An unforeseen event may or may not be a result of a deviation from the normal process of care. Unforeseen events are events related to patient status or outcomes that are considered significant indicators of health and safety factors for patients.

Unforeseen Event(s) must be documented, monitored and reported for safety, quality assurance and mandatory reporting purposes to the CDSA.

An Unforeseen Event Report (UER) sample form is found in Appendix F – Unforeseen Event Report (UER), Mandatory Notification. This form must be completed and submitted online via the members' website within two weeks to the CDSA.

Appendix E – Companion Documents

Copies of the "Companion Documents" listed below in Sections I and II and marked with an asterisk (*) may be obtained on the members' website of the College of Dental Surgeons of Alberta located at www.abdentists.com.

Section I

A. CDSA Accredited Dental Surgical Facilities: Policy Backgrounder (*).

B. CDSA Accredited Dental Surgical Facilities Process: Flowchart (*).

C. *Non-Hospital Surgical Facility Standards and Guidelines – College of Physicians and Surgeons of Alberta.*
http://www.cpsa.ca/accreditation/non-hospital-surgical-facility/

Section II

These are Companion Documents that relate to Infection Prevention and Control in a Dental Surgical Facility and are referred to in the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*:

A. CDSA *Guide for Best Practice Management of Dental Office Waste* (*).
Note: The following subsections (F) and (G) of Section II are Companion Documents that may be referred to regarding Infection Prevention and Control in an Accredited Dental Surgical Facility. They should be consulted when necessary but do not necessarily constitute the CDSA *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.

B. CDSA *Guide for Bloodborne Pathogen – Needlestick Protocol* (*).

C. CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* – Bloodborne Pathogen Post – Exposure Integrated Protocol (*).

D. CDSA *The Dentist's Guide To Occupational Health and Safety Responsibilities, Best Practices for the Assessment and Control of Hazards in Dentistry* (*).

E. *Alberta Occupation Health and Safety Act – Occupational Health and Safety Code.*
https://www.qp.alberta.ca/ohscode.cfm

F. Canadian Standards Association (CSA) Standards.
Note: Copies of the following documents can be obtained by contacting the:

Canadian Standards Association
1707 94 ST NW
Edmonton, AB T6N 1E6

Canadian Standards Association
6715 8 ST NE
Calgary, AB T2E 7H7

Phone: 1-800-463-6727
https://www.csagroup.org/

G. CAN/CSA-Z314-18 (R2018) Canadian Medical Device Reprocessing.

H. CAN/CSA-Z314.7-03 (R2013) Steam Sterilizers for Health Care Facilities.

I. CAN/CSA Z314.13-01 (R2007) Recommended Standard Practices for Emergency (Flash) Sterilization.

J. Centres for Disease Control and Prevention (CDC) Guidelines – Recommendations from the Guidelines for Infection Control in Dental Health-Care Settings, 2003.
https://www.cdc.gov/oralhealth/infectioncontrol/guidelines/

Section III

The following is a list of documents that may be referred to regarding Anaesthetic Equipment in an Accredited Dental Surgical Facility. They should be consulted when necessary but do not necessarily constitute the CDSA *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.

Note: Copies of the following documents can be obtained by contacting the:

Canadian Standards Association
1707 94 ST NW
Edmonton, AB T6N 1E6

Canadian Standards Association
6715 8 ST NE
Calgary, AB T2E 7H7

Phone: 1-800-463-6727
https://www.csagroup.org/

- CAN/CSA-Z5359:16 (R2016) Anaesthetic and Respiratory Equipment – Low-Pressure Hose Assemblies For use With Medical Gases, Medical Vacuum, Medical Support Gases, and Anaesthetic Gas Scavenging Systems.
- CAN/CSA-ISO 5361:18 (R2018) Anaesthetic and Respiratory Equipment – Tracheal Tubes and Connectors.
- CAN/CSA-Z168.3-97 (R2011) Anaesthetic Machines for Medical Use.
- CAN/CSA-ISO 5360:16 (R2016) Anaesthetic Vaporizers – Agent-Specific Filling Systems.
- CAN/CSA Z32-15 (R2015) Electrical Safety and Essential Electrical Systems in Health Care Facilities.
- CAN/CSA-Z10651-4-08 (R2018) Lung Ventilators – Part 4: Particular Requirements for Operator-Powered Resuscitators.
- CAN/CSA-Z10651-5-08 (R2018) Lung Ventilators for Medical Use – Particular Requirements for Basic Safety and Essential Performance – Part 5: Gas-Powered Emergency Resuscitators.
- CAN/CSA C22.2. Medical Electrical Equipment.
- CAN/CSA-C22.2 No. 80601-2-12:12 (R2017) Medical Electrical Equipment – Part 2-12: Particular Requirements for Basic Safety and Essential Performance of Critical Care Ventilators.
- CAN/CSA-Z7396.1-17 (R2017) Medical Gas Pipeline Systems – Part 1: Pipelines for Medical Gases, Medical Vacuum, Medical Support Gases, and Anaesthetic Gas Scavenging Systems.
- CAN/CSA-Z7396-2-02 (R2007) Medical Gas Pipeline Systems – Part 2: Anaesthetic Gas Scavenging Disposal Systems.
- CAN/CSA-Z9170-1:19 (R2019) Terminal Units for Medical Gas Pipeline Systems – Part 1: Terminal Units for Use with Compressed Medical Gases, Vacuum, and Anaesthetic Gas Scavenging Systems.

Section IV

Electrical Safety

A copy of these standards may be obtained from:

Canadian Standards Association
1707 94 ST NW
Edmonton, AB T6N 1E6

Canadian Standards Association
6715 8 ST NE
Calgary, AB T2E 7H7

Phone: 1-800-463-6727
https://www.csagroup.org/

Section V

Fire Safety

A copy of the Code may be obtained from:

Learning Resources Centre
12360 – 142 Street NW
Edmonton, AB T5L 2H1

Phone: (780) 427-2767
https://edmonton.cdncompanies.com/other/learning-resources-centre-edmonton/

Appendix F – Unforeseen Event Report (UER)

Unforeseen Event Report (UER) Requirements

Unforeseen Events must be reported to the College of Dental Surgeons of Alberta as follows:

- Verbal report via telephone (780-432-1012) within one business day of an Unforeseen Event or becoming aware of an Unforeseen Event.

watermark

- Online submission within two weeks of the Unforeseen Event to the College of Dental Surgeons of Alberta (CDSA), via the members' website.

A. Documentation Required

- The Unforeseen Event Report (UER) must be completed by the regulated member administering the sedation in an Accredited Non-Hospital Surgical Facility (NHSF), Accredited Dental Surgical Facility (DSF), or regulated member who performed or was scheduled to perform the sedation and treatment, whichever may apply.
- A copy of the patient's clinical record.
- A summary by the regulated member involved with the case describing the unforeseen event, action taken, possible risk factors and outcome.

The College of Dental Surgeons of Alberta and the Dental Facilities Accreditation Committee will review the circumstances of the Unforeseen Event with the Dental Operator, the Non-Owner Facility Dentist, or the accredited facility and may consult with other practitioners to determine the risk of harm to patients.

If necessary, the Registrar may suspend the accreditation of any Accredited Dental Surgical Facility on a suspicion of continuing risk.

B. Mandatory Notification – Sample Form

Indicate Location of Unforeseen Event*

- Deep Sedation and General Anaesthesia in a Non-Hospital Dental Practice

  Please Indicate Facility Type*

  - Non-Hospital Surgical Facility (NHSF)
  - Dental Surgical Facility (DSF)

1. Identify the Type of Event

- Death within the facility or within 10 days of a sedation procedure.
  Note: In the event of a death, the Medical Examiner must be notified prior to any further action to the body, including moving the body or removal of any lines or tubes from the body.
- Transfer from the facility to a hospital regardless of whether or not the patient was admitted.
- Unexpected admission to a hospital within 10 days of a procedure or anaesthetic performed in the facility. (see also discharge instructions to patients D5.5 and D5.6).
  Note: When notified of an unexpected admission of a patient to hospital within 10 days of the procedure in the Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF), the Registrar may determine that written notification is not required when the reason given for admission to hospital is not related to the services provided in the facility.
- Clusters of infections among patients treated in the facility.
- Any procedure performed on the wrong patient, site or side.
- Missing or non-locatable opioids or Schedule 1 controlled substances.

2. Report Completed By

The name of the person who is filing out the form*

Name*

First | Last

Title*

Phone* | Phone Extension

Email*

Enter Email | Confirm Email

Date Report Completed*

4. General Information

Non-Hospital Dental Surgical Facility (NHSF) or Dental Surgical Facility (DSF) Name*

Medical Director Name*

Prefix | First | Last

Dental Operator Name*

Prefix | First | Last

General Anaesthesiologist Name (Anaesthesia Provide By)

Prefix | First | Last

Oral & Maxillofacial Surgeon Name (Anaesthesia Provide By)

Prefix | First | Last

Regulated Member Name (Treatment Procedure Provided By)*

Prefix | First | Last

Date of Unforeseen Event* Date of Procedure*

5. Sedation Information

Sedation performed By (Name)*

Prefix | First | Last

Type of Sedation*

- Modality 1.0 Nitrous Oxide Sedation for patients 12 years of age and older
- Modality 2.0 Nitrous Oxide Sedation for patients under 12 years of age
- Modality 3.0 Oral Sedation for patients 12 years of age and older
- Modality 4.0 Oral Sedation for patients under 12 years of age
- Modality 5.0 Oral Sedation with Nitrous Oxide Sedation for patients 12 years of age and older
- Modality 6.0 Oral Sedation with Nitrous Oxide Sedation for patients under 12 years of age
- Modality 7.0 Parenteral (intravenous only) Sedation for patients 12 years of age and older - Single Drug (Benzodiazepine)
- Modality 7.0 Parenteral (intravenous only) Sedation for patients 12 years of age and older - Two Drug (Benzodiazepine and Fentanyl)
- Modality 8.0 Parenteral (intravenous only) Sedation for patients under 12 years of age - Single Drug (Benzodiazepine)
- Modality 8.0 Parenteral (intravenous only) Sedation for patients under 12 years of age - Two Drug (Benzodiazepine and Fentanyl)
- DGA Deep Sedation/General Anaesthesia for patients 12 years of age and older
- DGA Deep Sedation/General Anaesthesia for patients under 12 years of age

6. Patient Information

Patient Name*

First | Last

AHCI #*

Please enter the 9 digit Personal Health Number

Sex*

- M (Male)
- F (Female)
- X (Unspecified)

Date of Birth* | Age at time of Incident

Height* | Units* (cm / Feet & Inches) | Weight* | Units* (Kg / lbs)

ASA Classification*

Treatment Proposed*

Treatment Performed*

6. Description of Event

a. Describe what happened. Brief details of unforeseen event. *

b. Describe where it happened. Describe the exact location in the NHSF or DSF.*

c. What was the outcome including diagnosis, length of stay, sequelae, etc.*?

7. **History of the Event**

Describe contributing factors to the unforeseen event

a. Patient (i.e., co-existing disease conditions, language barriers, etc.) *

b. Personnel (i.e., number, training, experience, performance)*

c. Equipment (list any equipment that may have played a role in the unforeseen event) *

d. Environment (i.e., noisy, crowded, etc.) *

8. **Response to the Unforeseen Event**

a. If this unforeseen event had progressed without corrective action, what might the outcome have been for the patient? *

b. What prevented this event from becoming more serious? *

c. What steps have been taken to prevent future occurrences such as change to policy or procedures? Give details and provide documentation if applicable. *

9. Supporting Documentation

Please upload any documentation you have for this unforeseen event below. If you have additional files to send, please ensure the files are sent using an encrypted service (i.e., CDA Secure Send, Bright Squid, etc.) with the subject line "Unforeseen Event Documentation".

File(s)

Drop files here or

SELECT FILES

Accepted file formats are picture files, video files, and documents including PDFs, Microsoft Word and Microsoft Excel. If you require another file type, please contact the CDSA.

10. Certification

I hereby confirm that I have reviewed the contents of this report and certify that the information herein is true and accurate.

Name*

First Last

Submission Date*

Consent*

☐ By submitting this registration electronically, I acknowledge and agree that the contents are true and complete as if I had signed the documents in writing. I declare that the contents of this registration are true and complete and I understand and agree that if I make a false or misleading statement or representation in my registration, I will be deemed to not have satisfied the requirements of registration. I further understand and agree that making a false or misleading statement to the College of Dental Surgeons of Alberta may constitute unprofessional conduct.

SUBMIT

You have submitted your Unforeseen Event Report. Your report will be reviewed.

Appendix G – Annual Report Table – Types of Procedures by Case

Note to Dental Operator:
This table must be completed as part of the submission of the Annual Report of the Accredited Dental Surgical Facility to the CDSA.

Correlation of DEEP SEDATION and GENERAL ANAESTHESIA and SURGICAL Dental Surgical Services				
TYPES OF PROCEDURES BY CASE::	**ADULTS General Anaesthesia CASES**	**ADULTS Deep Sedation CASES**	**PEDIATRIC PATIENT General Anaesthesia CASES**	**PEDIATRIC PATIENT Deep Sedation CASES**
General Dentistry				
• MAINTENANCE				
• RESTORATIVE				
• SURGICAL				
• COMBINATION of above				
Oral and Maxillofacial Surgery				
Total				

Appendix H – Manuals and Documents List

The Dental Operator is also referred to the following CDSA Manuals and Documents that provide information and directives to regulated members in Alberta.

Copies of the documents listed below may be obtained on the website of the College of Dental Surgeons of Alberta at https://www.dentalhealthalberta.ca/patients-general-public-protection/public-protection/legislation/.

A. CDSA *Code of Ethics*.

B. CDSA Guide for Radiation Health and Safety Program.

C. CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry and Risk Management for Dentistry*.

D. CDSA *Standard of Practice: Informed Consent*.

E. CDSA *Standard of Practice: Patient Records*.

F. CDSA *Standard of Practice: Privacy and Management of Patient Health Information*.

G. CDSA *The Dentist's Guide To Occupational Health And Safety Responsibilities, Best Practices for the Assessment and Controls of Hazards in Dentistry*.

H. *Alberta Health Professions Act:*
   - *Alberta Health Professions Act – Dental Surgical Facility Accreditation Regulation*.
   - *Alberta Health Professions Act – Dentists Profession Regulation*.

I. *Alberta Radiation Protection Regulation Act, Radiation Protection Regulation*.

Appendix I – Sample Format Accredited Dental Surgical Facility – Policy

Accredited Dental Surgical Facility Name

POLICY NO: _____ Page _____ of _____

Last Revision / Review Date: _____

Next Review Date: _____

Source: _____

Approved By: _____
Dental Operator's Signature
Medical Director's Signature (where applicable)

Policy Title

Philosophy: _____

Policy Statement: _____

How to remove an insert _____

References: _____

Appendix J – Sample Format Accredited Dental Surgical Facility – Procedure

Accredited Dental Surgical Facility Name

Date of Original Procedure: _____ Procedure No: _____

Last Review/Revision Date: _____ Page _____ of _____

Next Review Date: _____

Source: _____

Dental Operator's Signature _____

Procedure

General Description: _____

_____

Patient Preparation:

Procedure Steps: Rationale:

1. _____
2. _____
3. _____
4. _____
5. _____

Equipment: (Procedure to setup, calibrate, recording required).

_____

_____

Precautions/Safety Measures: _____

Comments/Diagrams: _____

Specific Surgeon Needs: _____

References: _____

Appendix K – Non-Owner Facility Dentist

As the owner/operator of the NHSF or DSF, you must account for the Non-Owner Facility Dentists providing Dental Surgical Services at your facility. A Non-Owner Facility Dentist is a regulated member who provides Dental Surgical Services in a NHSF or DSF but is not the owner/operator of the facility.

- If Non-Owner Facility Dentists do not provide Dental Surgical Services at your facility, please refer to Form A for further instructions and requirements.
- If Non-Owner Facility Dentists do provide Dental Surgical Services at your facility, please refer to Form C for further instructions and requirements.

If Non-Owner Facility Dentists provide Dental Surgical Services at your facility, each Non-Owner Facility Dentist must provide written documentation and attestation to the Dental Operator or Medical Director, to allow your facility to maintain or receive the status of "Full Accreditation".
Please follow the instructions below:

1. Please reproduce and distribute Form C to each Non-Owner Facility Dentist for completion.
2. Each Non-Owner Facility Dentist is required to complete and return Form C to you no later than 90 days from its issuance date.
3. Dental Operator or Medical Director upon receipt of all forms with accompanying documentation from all Non-Owner Facility Dentists, you are required to complete and return Form D to the CDSA.
4. Please do not forward the information submitted to you by the Non-Owner Facility Dentists to the College of Dental Surgeons of Alberta.

Upon the receipt of this information and its review by the DFAC, your facility will be considered for the status of "Full Accreditation". If your facility currently has the status of "Full Accreditation", and this information is not received by Date that status may be revoked, until the DFAC has received the required information.

Form A

If Non-Owner Facility Dentists do not provide Dental Surgical Services in your facility, please complete this form and return to:

ATTENTION: CHAIR DFAC
COLLEGE OF DENTAL SURGEONS OF ALBERTA
402, 7609 109 ST NW
EDMONTON AB T6G 1C3

Name and Address of Dental Surgical Facility:

_____

_____

_____

_____

Name of Dental Operator(s):

_____

_____

_____

_____

_____ _____

SIGNATURE of Dental Operator Date

or

Name and Address of Non-Hospital Surgical Facility:

_____

_____

_____

_____

Name of Medical Director:

_____

_____

_____ _____

SIGNATURE of Medical Director Date

Form C
Page 1 of 5

The CDSA Dental Facilities Accreditation Committee (DFAC) requires that every Non-Owner Facility Dentist who provides Dental Surgical Services in a Non-Hospital Surgical Facility (NHSF) or Dental Surgical Facility (DSF) or acknowledge their compliance with the CDSA *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.

A NHSF or DSF, where Dental Surgical Services are provided, that cannot provide demonstration of compliance by all regulated members providing dental services will not maintain or receive "Full Accreditation" status from the DFAC. It is unprofessional conduct for a regulated member to provide Dental Surgical Services in a facility that is not accredited.

The Non-Owner Facility Dentist is required to sign and return the completed form with the requested information attached to the Dental Operator, Medical Director and/or facility manager by Date.

Note: You may access a copy of the CDSA *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* as follows:

https://www.cdsab.ca/patients-general-public-protection/public-protection/cdsa-bylaws-and-standards-of-practice/

or

You may contact the CDSA Regulatory Programs Manager at (780) 432-1012 for a copy.

Periodic updates to the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* may be provided to you by the facility where you provide Dental Surgical Services.

Form C
Page 2 of 5

TO BE COMPLETED BY NON-OWNER FACILITY DENTIST:

Name of NHSF/DSF:

_____

Name of Non-Owner Facility Dentist:

_____

As a Non-Owner Facility Dentist, please read the following 5 sections and provide your Signature/Date attesting to your acknowledgment of the item, attach any appropriate information where required and return to the management of the facility where you provide contract services Date.

As a Non-Owner Facility Dentist, I acknowledge that it is my responsibility:

- To be familiar with the CDSA *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*.
- To comply with all future updates to the *Standard of Practice: Minimal and Moderate Sedation Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*, as provided by the DFAC.
- To maintain current BLS (CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* - C2.1) and to provide BLS renewal documentation to the dental operator or facility manager annually or as required.

  Note: Additional certifications such as ACLS, PALS or Airway Management may also be provided, as appropriate. Please attach copies of your current BLS, ACLS and/or PALS, and Airway Management certificates to form.
- To comply with CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*, Occupational Health/Immunization E1.1, E1.2 and E1.3 and to provide evidence of immunization (E1.4) as required by The Facility Policies and Procedures.

  Note: Please attach copy of supportive documentation that is in keeping with the immunization policy of the facility.

Form C
Page 3 of 5

As a Non-Owner Facility Dentist, I acknowledge that it is my responsibility to ensure the following regarding personnel who accompany me to the facility for the purposes of providing Dental Surgical Services to patients:

- That accompanying personnel who hold a current practice permit will provide copies of documentation to the facility on an annual basis at renewal, or as required.

  Note: Personnel would typically include registered Dental Assistants and regulated Dental Hygienists.

- That accompanying personnel (regulated and non-regulated) will be certified and hold current BLS (CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* - C2.1) and will provide copies to the facility on an annual basis at renewal, or as required.

  Note: Additional certifications such as ACLS, PALS or Airway Management may also be provided to the facility, as appropriate.

- That accompanying personnel will comply with CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice*, Occupational Health/Immunization E1.1, E1.2 and E1.3 and will provide evidence of immunization (E1.4) as required by The Facility Policies and Procedures.

  Please attach the following:

  - List of the names of accompanying regulated and non-regulated personnel and their role.
  - Copies of current practice permits for all accompanying regulated personnel.
  - Copies of BLS certificate information for all accompanying regulated and non-regulated personnel.
  - Copies of supportive documentation for all accompanying regulated and non-regulated personnel that is keeping with the immunization policy of the facility.

As a Non-Owner Facility Dentist, I acknowledge that it is my responsibility to comply with CDSA *Standard of Practice: Infection Prevention and Control Standards and Risk Management for Dentistry* and confirm:

- That I and all accompanying personnel have been oriented to the facility infection prevention and control policies and procedures.
- That any preferred instruments, equipment or supplies that I and/or accompanying personnel bring to the facility for the purposes of provision of Dental Surgical Services to patients have been and will be processed according to the relevant CDSA *Deep Sedation and General Anaesthesia in Non-Hospital Dental Practice* and Facility IPC Policies and Procedures.
- That I and all accompanying personnel have been oriented to the facility policies and procedures for management of percutaneous injuries.
- That I will monitor for and report to the facility any post-operative infections of patients that could be as a result of treatment provided at the facility.

As a Non-Owner Facility Dentist, I acknowledge that the facility has a reporting requirement to the Registrar of the CDSA regarding the following Unforeseen Events:

- Death within the facility or within 10 days of a sedation procedure.
  Note: In the event of a death, the Medical Examiner must be notified prior to any further action to the body, including moving the body or removal of any lines or tubes from the body.
- Transfer from the facility to a hospital regardless of whether or not the patient was admitted.
- Unexpected admission to hospital within 10 days of a procedure or anaesthetic performed in the facility. (see also discharge instructions to patients D5.5 and D5.6).
  Note: When notified of an unexpected admission of a patient to hospital within 10 days of the procedure in the Non-Hospital Dental Facility (NHSF) or Dental Surgical Facility (DSF) the Registrar may determine that written notification is not required when the reason given for admission to hospital is not related to the services provided in the facility.
- Clusters of infections among patients treated in the facility.
- Any procedure performed on the wrong patient, site or side.
- Missing or non-locatable opioids or Class 1 controlled substances.

And I acknowledge that it is my responsibility to report to the Dental Operator(s), or Medical Director of the facility, any information relevant to Dental Surgical Services provided to patients at the facility that has resulted in an unforeseen event and to provide supportive documentation and information as required.

Form C
Page 5 of 5

As a Non-Owner Facility Dentist, I acknowledge the following:

- That I and all accompanying personnel have been oriented to the facility emergency policies and procedures and that we are aware of our roles, if any, in the event of an emergency.
- That I and all accompanying personnel will participate in emergency mock drills as required by facility policies and procedures.

SIGNATURE of Non-Owner Facility Dentist certifying this information to be true and accurate.

Print Name

Date

Form D

Once you have received all completed submissions of Form C from the Non-Owner Facility Dentists who provide Dental Surgical Services in your facility, please complete and return Form D to:

ATTENTION: REGULATORY PROGRAMS COORDINATOR
COLLEGE OF DENTAL SURGEONS OF ALBERTA
402, 7609 109 ST NW
EDMONTON AB T6G 1C3

Please provide the names of all Non-Owner Facility Dentists who currently provide Dental Surgical Services at your facility. (You may attach a list)

_____

_____

_____

Please acknowledge the following by way of signature:
That all Non-Owner Facility Dentists have completed and submitted the required documentation to my facility.

_____ _____
SIGNATURE of Dental Operator Date

_____
Print Name

or

_____ _____
SIGNATURE of Medical Director Date

_____
Print Name

Appendix L – Competence Education

Regulated members who are administering deep sedation/general anaesthesia for their patients are required to attain a minimum of 8 CE hours in a two-year period. This may include Resuscitation[***] Advanced Cardiovascular Life support (ACLS), Pediatric Advanced Life Support (PALS) or Airway Management.

Regulated members who have not maintained current sedation CE requirements in a 2-year period may not administer any form of sedation until such CE requirements have been filled.

Regulated members must maintain current certification in BLS, ACLS, PALS and Airway Management (applicable to technique of sedation utilized by regulated member). If certification expires the regulated member may not administer any form of sedation.

BLS training is required (every 12 months).

ACLS and an CDSA approved Airway Management course (both every 24 months) are required for those regulated members administering deep sedation/general anaesthesia to patients over 12 years of age; and PALS and an CDSA approved Airway Management course with a pediatric component (both every 24 months) are required for those regulated members administering deep sedation/general anaesthesia to patients under 12 years of age.

Only BLS, ACLS, PALS and Airway Management courses that are authorized by the CDSA will be accepted. These courses must be in person courses for both didactic teaching and hands-on instruction. Any on-line, or correspondence courses, are not considered acceptable.

Regulated members who have not administered deep sedation or general anaesthesia in a 3-year period and would like to provide this sedation technique must re-certify by taking an CDSA approved training program.

[***] Resuscitation is a procedure to support and maintain breathing, circulation, heartbeat for a child or adult.

CPR – Cardiopulmonary Resuscitation is designed for healthcare professionals who provide care to patients to recognize a number of life-threatening emergencies. Also known as BLS – Basic Life Support Provider (formerly known as BLS for Healthcare Provider), Healthcare Provider CPR – Level C, etc. For consistency referenced as BLS in this document.

ACLS – Advanced Cardiovascular Life Support is designed for healthcare professionals who either direct or participate in the management of cardiopulmonary arrest and other cardiovascular emergencies.

PALS – Pediatric Advanced Life Support is designed for healthcare professional who initiate and direct advanced life support in pediatric emergencies in children.

Airway Management – Airway Management and Pediatric Airway Management are designed for healthcare professionals who initiate and direct in the management of anesthetized patients to facilitate oxygenation and mechanical ventilation.

402-7609 109 ST NW
Edmonton, AB T6G 1C3

Phone: 780-432 1012
Fax: 780-433 4864
Email: reception@cdsab.ca
www.cdsab.ca