

**Rule XIV. Utilization of Anesthesia/Sedation**  
(Amended February 1, 1998, August 1, 2000; August 11, 2004; October 27, 2004)

This rule specifically applies to each dentist (supervising dentist) utilizing general anesthesia, deep sedation, and conscious sedation under the statutory authority of the Dental Practice Law (C.R.S. 12-35-101 et seq).

A. "Induction and Administration" as those terms are used in Rule XIV, shall include any procedure or medication administered prior to attaining the proper level of anesthesia/sedation as determined by the supervising dentist. All induction and administration procedures shall be the responsibility of the supervising dentist and shall not be delegated except to another dentist whose qualifications meet the education and training requirements of Rule XIV for the anesthesia to be administered, a qualified physician anesthetist, or a certified nurse anesthetist. Induction and administration of anesthesia shall include, but not be limited to the following procedures:

1. Determination of the drugs, mode of administration, and dosage of the anesthesia/sedation appropriate for the patient;
2. Observation of the patient until the appropriate and safe level of anesthesia/sedation is attained.

B. "Monitoring"

1. "Monitoring" as used in Rule XIV refers to the continual observation of the patient to ensure stable physical condition of the patient and maintenance of a proper level of anesthesia or sedation as determined by the supervising dentist during induction, maintenance, and recovery from the anesthesia/sedation procedure.
2. Monitoring of the patient during an anesthesia/sedation procedure may be delegated under direct supervision to a dental hygienist or dental assistant however, the supervising dentist retains full accountability for the monitoring and dismissal of the patient following completion of the anesthesia/sedation procedure. Patient dismissal must be specifically authorized by the supervising dentist.

C. Any dentist administering parenteral or enteral conscious sedation pursuant to Rule XIV shall have proof of current basic life support (BLS) knowledge and skills, including cardiopulmonary resuscitation (CPR). Any dentist administering general anesthesia and/or deep sedation shall have proof of current BLS and Advanced Cardiac Life Support certification.

D. All personnel, including, but not limited to, dental hygienists and dental assistants, who render patient care services in a dental setting where

anesthesia/sedation is administered shall have proof of current basic life support (BLS) knowledge and skills.

E. All equipment, as provided for in this Rule XIV, subsections H.9 shall be functional and operative at all times.

F. Morbidity and Mortality Report - A completed written report shall be submitted to the Board by the supervising dentist and any other person administering the anesthesia/sedation within fifteen (15) days of any anesthesia/sedation related incident resulting in patient morbidity or mortality which occurred while the patient was under the care of the dentist, and/or required or should have required hospitalization, emergency facility care, or emergency service response.

1. Such report shall include all of the following items:

a. Description of dental procedure;

b. Description of preoperative physical condition of the patient;

c. List of the drugs and dosages administered with the time and route of each administration;

d. Detailed description of techniques utilized in administering the drugs;

e. Description of adverse occurrence to include:

1) Detailed description of symptoms of any complications including, but not limited to, onset and type of symptoms in patient;

2) Treatment instituted on patient;

3) Response of the patient to treatment;

f. Description of the patient's condition on termination of any procedure undertaken.

2. All written records related to this incident shall be submitted to the Board with the report.

3. Pursuant to 12-35-107(1)(d), the Board may request an on-site evaluation of the dental facility related to this report.

G. Prior to the induction and administration of anesthesia/sedation as provided for in this Rule XIV, a dentist licensed pursuant to the Colorado Dental Practice Law shall certify to the Board, on a form approved by the Board,

compliance with all applicable requirements as specified in Rule XIV.  
Required courses may be completed in an accredited dental school or in an advanced training program as approved by the Board

#### H. General anesthesia and/or deep sedation

1. "General Anesthesia" is an induced state of unconsciousness accompanied by a partial or complete loss of protective reflexes, including the ability to maintain an airway independently and respond purposefully to physical stimulation or verbal command and is produced by a pharmacologic or non-pharmacologic method or combination thereof.
2. Deep sedation is an induced state of depressed consciousness accompanied by a partial loss of protective reflexes, including the occasional inability to independently maintain a patent airway and/or respond purposefully to verbal command, and is produced by a pharmacologic or non-pharmacologic method or combination thereof.
3. Education/Training Requirements: Prior to induction and administration of general anesthesia and/or deep sedation, a Colorado licensed dentist shall meet one of the following education/training requirements:
  - a. Proof of successful completion of a residency program in general anesthesia of not less than two calendar years that is approved by the Board of Directors of the American Dental Society of Anesthesiology for eligibility for the Fellowship in General Anesthesia; OR
  - b. Proof of successful completion of an accepted post-doctoral training program (e.g., oral and maxillofacial surgery) which affords comprehensive and appropriate training necessary to administer and manage general anesthesia and deep sedation commensurate with the American Dental Association Guidelines for teaching the comprehensive control of anxiety and pain in dentistry.
4. The Board shall approve the authority to administer general anesthesia and/or deep sedation upon the Board's finding that the applicant meets the requirements set forth in H.3. The permit shall be valid for a period of five years after which it may be renewed subsequent to reapplication and completion of an office inspection as provided in Rule XV.
5. Examination: Prior to administration of general anesthesia and/or deep sedation, a supervising dentist shall record the following information in the patient's chart:

- a. The patient's vital signs; and,
  - b. The patient's pertinent medical history, pertinent physical findings and weight.
6. Documentation: The supervising dentist shall ensure that the dental treatment, the anesthesia treatment, and the patient's response to such treatment shall be recorded in the patient's record. The record shall include:
  - a. A written and current medical history which is signed by the supervising dentist, and patient or guardian;
  - b. A written examination chart that includes preoperative physical assessment performed by the practitioner administering the anesthesia with the proposed dental and anesthesia procedures clearly indicated and potential complications written on the records;
  - c. A consent form signed by the patient or the patient's guardian for any anesthesia and for treatment;
  - d. A fully documented record of each administered anesthesia, including a time-lined record of vital signs, drugs and dosages, routes of administration, response to anesthesia and any complication or adverse reaction.
  - e. Discharge criteria, condition on discharge, vital signs, and time of discharge.
  - f. All prescriptions ordered.
7. Monitoring. The patient must be continually monitored through the procedure and recovery to the full extent as defined in Section B. above.
8. Emergency Care: Prior to the administration of general anesthesia and/or deep sedation, the supervising dentist and treatment team (dental hygienists and/or assistants) shall have appropriate knowledge and training to recognize the symptoms and reasonably treat the complications and emergencies incident thereto.
9. Office Facilities and Equipment: The supervising dentist shall submit an office inspection report in compliance with Rule XV which must be approved by the Board prior to administering general anesthesia and/or deep sedation to a patient and provide the following office facilities and equipment:

- a. An operating room;
- b. An operating chair or table;
- c. Back-up suction equipment with fail-safe mechanism in the event of power loss.
- d. A back-up lighting system, which provides light intensity adequate to permit completion of any dental procedure in progress;
- e. Oxygen and gas-delivery systems, which shall include:
  - 1) A capability to deliver oxygen to a patient under positive pressure, including a back-up oxygen system;
  - 2) Gas outlets which meet related state or federal standards that prevent accidental administration of inappropriate gases or gas mixture; and,
  - 3) Fail-safe mechanisms for inhalation nitrous oxide analgesia.
  - 4) The equipment must have an appropriate scavenging system.
- f. A sterilization area;
- g. A recovery area, which shall include installed oxygen and suction systems or the capability to operate portable oxygen and suction systems;
- h. Gas storage facilities, which meet related state or federal standards;
- i. Emergency airway equipment and facilities, which shall include:
  - 1) A full-face mask and an ambu bag or equivalent with an oxygen hook-up;
  - 2) Oral and nasopharyngeal airways;
  - 3) Endotracheal tubes suitable for children and adults;
  - 4) A laryngoscope with reserve batteries and bulbs;
  - 5) Endotracheal tube forceps;
  - 6) Emergency drugs and or medications;

- 7) An IV catheter with continuous drip;
- 8) External defibrillator for general anesthesia
- j. Equipment to monitor vital signs and assure an adequate airway, which shall include, but not be limited to:
  - 1) A pulse oximeter;
  - 2) A blood pressure cuff of appropriate size and stethoscope; or equivalent blood pressure monitoring devices;
  - 3. Electrocardiograph for general anesthesia.

#### 10. Personnel

- a. A minimum of 3 individuals must be present during the administration of general anesthesia and/or deep sedation.
- b. Those three individuals shall include the supervising dentist qualified to administer anesthesia and two individuals, at least one of whom is trained in patient monitoring.

#### 11. Discharge

- a. The professional administering the anesthesia/ or sedation must determine that the patient has met discharge criteria prior to the patient leaving the office.

#### I. Parenteral Conscious Sedation

- 1. Conscious sedation is a minimally depressed level of consciousness that retains the patient's ability to maintain a patent airway independently and continuously and respond appropriately to physical stimulation or verbal command and that is produced by a pharmacologic or non-pharmacologic method or a combination thereof.
- 2. Education/Training Requirements: Prior to induction and administration of parenteral conscious sedation, a Colorado licensed dentist shall meet one of the following education/training requirements:
  - a. Completion of the education/training requirements specified under "General Anesthesia", subsection H.3.a. or H.3.b.; OR
  - b. Proof of successful completion of a specialty residency or general practice residency recognized by the Commission on Dental

Accreditation that includes comprehensive and appropriate training to administer and manage parenteral conscious sedation; OR

- c. Proof of successful completion of a minimum of 60 course hours within the past five (5) years that provide training in the administration and induction of parenteral conscious sedation techniques and the potential problems and emergencies associated with such administration, as well as documentation of 20 treatment cases, which shall be submitted to the Board for approval.
  - 1) The applicant must first provide an application with documentation of the training course(s) to include, but not limited to, a syllabus or course outline of the program and a certificate or other documentation from course sponsors or instructors indicating the number of course hours, content of such courses and date of successful completion.
    - A) The course must consist of 30 hours of classroom instruction as well as 30 hours of supervised clinical training in parenteral conscious sedation.
    - B) Course content leading to Basic Life Support and/or Advanced Cardiac Life Support cannot be considered as part of the classroom and clinical instruction.
    - C) All of the training course(s) must have been completed in the past five (5) years.
  - 2) Upon Board approval of the training program, the applicant shall then submit documentation of 20 treatment cases for Board approval.
    - A) Cases completed in the training program by the applicant as the provider of conscious sedation may be submitted to the Board to meet the requirement for part or all of 20 treatment cases.
    - B) At least 10 of the treatment cases must be under the on-site instruction and supervision of a person qualified to administer parenteral conscious sedation.
    - C) The applicant must be the provider of parenteral conscious sedation in at least ten of the cases.

- D) Cases must meet generally accepted standards for the provision of parenteral conscious sedation and documentation.
- E) Cases must be completed by the licensee either within the course cited in Rule XIV, subsection I.2.c.1. or during the 1 year period immediately after completion of the course.
- F) If any of the required treatment cases are conducted in a Colorado dental office, the applicant must meet the following provisions:
  - 1. Prior to any parenteral conscious sedation services being provided in a Colorado office or facility, the office or facility must first be inspected and the inspection approved by the Board as provided in Rule XV.
  - 2. The first 5 cases (or up to 10 cases if fewer than 10 cases were done in the training program) must be provided under the on-site instruction and supervision of a person qualified to administer parenteral conscious sedation. The applicant shall submit the cases to the Board. After approval of these cases, the Board will issue a temporary authority to administer parenteral conscious sedation that will expire 12 months after its issuance. The temporary authority must be issued prior to any subsequent cases.
- d. The Board shall certify the authority to administer parenteral conscious sedation upon its determination that the applicant has met the requirements found in I. 2.a., b., or c. above, and Rule XV. The permit shall be valid for a period of five years after which it may be renewed subsequent to reapplication and completion of an office inspection as provided in Rule XV.
- 3. Examination: Prior to the administration of parenteral conscious sedation anesthesia, the dentist shall record all information in the patient's chart as specified under "General Anesthesia", subsection H.5.a. and H.5.b.
- 4. Documentation: The dentist shall record in the patient's chart the treatment given and the patient's response to the treatment. The record shall include all information as provided for under "General Anesthesia or Deep Sedation," subsection H.6.
- 5. Emergency Care: Prior to the administration of conscious sedation anesthesia, the supervising dentist, dental hygienist, and assistants shall

- have appropriate training to recognize the symptoms and reasonably treat the complications and emergencies incident thereto.
6. Office Facilities and Equipment: Prior to administering conscious sedation anesthesia to a patient, the supervising dentist shall provide all office facilities and equipment as specified under “General Anesthesia or Deep Sedation”, subsection H.9., excepting the external defibrillator.
  7. Personnel: During administration of parenteral conscious sedation, the dentist and at least one other individual must be present.
  8. Nitrous oxide analgesia may be used in conjunction with Parenteral conscious sedation provided that:
    - a. The dentist has been certified for nitrous oxide administration under Rule XVII; and
    - b. All requirements of Rule XVII have been met; and
    - c. The level of sedation does not exceed conscious sedation.

#### J. Enteral conscious sedation

1. Enteral conscious sedation is a controlled state of depressed consciousness that retains the patient’s ability to maintain a patent airway independently and continuously and to respond appropriately to physical stimulation and verbal command and is produced by a pharmacologic or non-pharmacologic method or a combination thereof which is administered by way of the gastro-intestinal tract (i.e. oral, rectal and/or sublingual routes). Oral premedication prescribed/administered for the relief of anxiety and apprehension does not fall within these provisions. However, if the agents/medications are given in dosages such that the patient is placed in a state of conscious sedation then the dentist must have met the requirements and be approved pursuant to this Rule XIV.
2. Educational/Professional Requirements. Prior to the use of enteral conscious sedation, a Colorado licensed dentist shall meet one of the following education/training requirements:
  - a. Completion of the education/training requirements specified under “General Anesthesia”, subsection H.3.a. or H.3.b.; OR
  - b. Completion of the education/training requirements specified under “Parenteral Conscious Sedation” subsection I.2.a., I.2.b., or I.2.c; OR.

- c. Proof of successful completion of an ADA accredited post-doctoral training program which affords comprehensive and appropriate training necessary to administer and manage enteral conscious sedation as determined by the Board, with documented administration of enteral conscious sedation in a minimum of five such cases. The cases shall be completed as a component of the course or completed after the course, and are subject to Board approval; OR
  - d. Proof of successful completion of a course consistent with those described in Parts II and III of the American Dental Association (ADA) Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry, within the past five (5) years, that provides training in the use of enteral conscious sedation techniques and the potential problems and emergencies associated with such administration with documented administration of enteral conscious sedation in a minimum of five such cases. The cases shall be completed as a component of the course or completed after the course, which are subject to Board approval. The applicant shall submit documentation of the five cases completed as a component of the training course for approval by the Board. Cases must meet generally accepted standards for the provision of parenteral conscious sedation and documentation.
3. Examination: Prior to the administration of enteral conscious sedation, the dentist shall record all information in the patient's chart as provided for under "General Anesthesia," subsection H.5.a. and H.5.b.
  4. Documentation: The dentist shall record, in the patient's chart, the treatment given and the patient's response to the treatment. The record shall include all information as provided for under "General Anesthesia and/or Deep Sedation," subsection H.6.
  5. Emergency Care: Prior to the administration of enteral conscious sedation anesthesia, the supervising dentist, dental hygienists, and assistants shall have appropriate training to recognize the symptoms and reasonably treat any complications and emergencies incident thereto.
  6. Office Facilities and Equipment: Prior to administering enteral conscious sedation anesthesia to a patient, the supervising dentist shall provide all office facilities and equipment as specified under "General Anesthesia and/or Deep Sedation", subsection H.9., excepting the external defibrillator. An IV catheter with continuous drip is not required but must be available for use in case emergency care is required.
  7. Personnel: During administration of enteral conscious sedation, the supervising dentist and at least one other individual must be present.

8. Prior to any enteral conscious sedation services being provided in a Colorado office or facility, the office or facility must first be inspected and the inspection approved by the Board as set forth in Rule XV.
9. The Board shall certify the authority to administer enteral conscious sedation upon its determination that the applicant has met the requirements found in J.2. and Rule XV. The permit shall be valid for a period of five years after which it may be renewed subsequent to reapplication and completion of an office inspection as set forth in Rule XV.

10. Nitrous oxide analgesia may be used in conjunction with enteral conscious sedation provided that

- a. The dentist has been certified for nitrous oxide administration under Rule XVII; and
- b. All requirements of Rule XVII have been met; and
- c. The level of sedation does not exceed conscious sedation.

K. Upon reasonable cause, including an incident of patient morbidity or mortality, and/or for any violation or non-compliance with this rule, the Board may temporarily suspend or revoke the permit granted by the Board to administer anesthesia. Upon a specific finding of violation of this rule, as set forth in 12-35-129 (1), C.R.S., the Board may order that this suspension or revocation of permit be permanent.

L. Current Experience. It is required that the supervising dentist maintain competency and recent experience. If a supervising dentist has not regularly provided general anesthesia or conscious sedation services within the three years prior to certificate renewal, the dentist must provide evidence to the Board of competency in these procedures. The Board may in turn require additional training or supervision and/or deny issuance of a permit until competency is demonstrated.

10. Nitrous oxide analgesia may be used in conjunction with enteral conscious sedation provided that

- a. The dentist has been certified for nitrous oxide administration under Rule XVII; and
- b. All requirements of Rule XVII have been met; and
- c. The level of sedation does not exceed conscious sedation.

K. Upon reasonable cause, including an incident of patient morbidity or mortality, and/or for any violation or non-compliance with this rule, the Board may temporarily suspend or revoke the permit granted by the Board to administer anesthesia. Upon a specific finding of violation of this rule, as set forth in 12-35-129 (1), C.R.S., the Board may order that this suspension or revocation of permit be permanent.

L. Current Experience. It is required that the supervising dentist maintain competency and recent experience. If a supervising dentist has not regularly provided general anesthesia or conscious sedation services within

the three years prior to certificate renewal, the dentist must provide evidence to the Board of competency in these procedures. The Board may in turn require additional training or supervision and/or deny issuance of a permit until competency is demonstrated.

**Rule XV. Anesthesia Office Inspection  
(In Compliance With HB 95-1060)  
(Amended February 1, 1998, May 15, 1998; August 11, 2004)**

This rule does not apply if the dentist is not the person administering conscious/deep sedation.

- A. All dentists approved to administer conscious/deep sedation and/or general anesthesia must undergo an office inspection and receive a permit from the Board within 6 (six) months of obtaining approval to administer anesthesia under Rule XIV. The program administrator may grant one three (3) month extension for good cause.
- B. The permit shall be effective for five years from date of issuance.
- C. Dentists who receive a permit pursuant to this Rule XV and travel to other office locations to administer anesthesia shall ensure that the office location has the equipment required by Rule XIV and that the staff is properly trained to handle anesthesia related emergencies.
- D. The dentist requiring the office inspection is responsible for all fees associated with the inspection:
- E. The fee for the administrative work to issue the permit is \$21.00.
- F. The fee for the office inspection shall not exceed \$400.00. In addition to the \$400.00, the inspector may charge and be reimbursed for reasonable out-of-pocket expenses for travel, meals, and lodging.
- G. The office inspection shall consist of four (4) parts:

Part I - Review of the office equipment, records, and emergency medications required by Rule XIV.

Part II - Simulated emergencies -The dentist and his/her team must perform an actual demonstration of their method for managing the following emergencies:

Laryngospasm  
Bronchospasm  
Emesis & Aspiration of Vomitus  
Foreign Bodies in the Airway

Angina Pectoris  
Myocardial Infarction  
Cardiopulmonary Resuscitation  
Hypotension  
Hypertensive Crisis  
Allergic Reaction  
Seizure  
Hypoglycemia  
Asthma  
Respiratory Depression  
Local Anesthesia Allergy or Overdose.  
Hyperventilation Syndrome  
Convulsion of Unknown Etiology

The simulated emergency procedures are to be demonstrated in the surgery area with full participation of the office staff. An exact simulation of the emergency situation should be demonstrated. The type of emergencies selected by examiners should be based on the emergencies likely to be seen in the type of practice in which the dentist is engaged. The "patient" should be positioned and draped, and all equipment that may be used should be demonstrated. A simulated intravenous line should be taped into position and all emergency equipment should be present, including syringes, medications, etc.

The inspector shall review with the dentist and his/her office staff a minimum of 8 of the previous listed simulated emergencies. Cardiopulmonary Resuscitation must be one of the 8 simulated emergencies and must be passed. The dentist and his/her office staff must be proficient in at least 75% of the simulated emergencies. Should the dentist fail to be proficient in at least 75% of the first 8 emergencies, the inspector may proceed through the list of emergencies until the dentist is proficient in at least 75% of the simulated emergencies.

If the dentist is not proficient in a least 75% of the simulated emergencies this shall be reported to the Board for immediate action, including but not limited to loss of privilege to administer anesthesia or sedation.

Part III - Discussion Period - This part of the evaluation should be conducted in private away from the staff and patients. The inspector may note deficiencies and make positive suggestions to the dentist for improving the office facility and patient management. It is appropriate to discuss management of risk patients if this has not been covered during the earlier phase.

Part IV - Surgical/Anesthetic Techniques - The inspector shall observe at least one case while the dentist administers conscious/deep sedation. The inspector is authorized to observe additional cases at his/her discretion.

- H. The dentist requiring the inspection shall obtain his/her own inspector. The inspector must be an Oral Surgeon, Certified Nurse Anesthetist, Anesthesiologist, a Dental Anesthesiologist, or a Board Certified Pediatric Dentist with current Pediatric Anesthesia Life Support certification. The inspector must have a current, unrestricted Colorado dental, medical or nursing license. The inspector meeting the above requirements is deemed to be a consultant to the Board.
- I. There shall not be reciprocal agreements between the inspector and the dentist.
- J. The inspector shall not have had a previous, current, or intended working relationship with the dentist he/she is inspecting.
- K. The Board shall accept the office inspections conducted by the Dentist's Professional Liability Trust and the Association of Oral and Maxillofacial Surgeons as meeting the requirements of the Board. Inspections conducted by one of the above entities will be effective for five years from the date of issuance by the entity.
- L. Inspectors shall be covered under good faith immunity in acting as agents for the Board. (expired 5/15/98)
- M. Effective April 1, 1996. All dentists currently approved under Rule XIV shall have six months from this date to undergo an office inspection and receive a permit from the Board. Failure to comply within six months of this rule may result in the revocation of the privilege to administer anesthesia and/or additional action by the Board.
- N. The documentation of the office inspection must be completed on forms approved by the Board.

#### **Rule XVI. Oral Premedication Administered for the Relief of Anxiety**

Oral premedication prescribed/administered for the relief of anxiety and apprehension does not fall within Rule XIV. However, if the agents/medications are given in dosages such that the patient is placed in a state of conscious sedation then the dentist must have met the requirements and be approved pursuant to Rule XIV.

#### **Rule XVII. Administration of Nitrous Oxide/Oxygen Inhalation** (Amended February 1, 1998; August 11, 2004)

- A. When conscious sedation is accomplished solely by means of nitrous oxide/oxygen inhalation techniques, then this Rule shall apply.

B. The administration of nitrous oxide may be delegated to another dentist whose qualifications meet the education and training requirements of Rule XIV, a qualified physician anesthetist, or a certified nurse anesthetist.

C. Education/Training Requirements:

1. As of February 1, 1998, in order to administer and induce conscious analgesia solely by means of nitrous oxide/oxygen inhalation techniques, a dentist shall complete a course(s) conducted at an institution accredited by the American Dental Association Commission on Dental Accreditation or certified by the Colorado Department of Higher Education Division of Private Occupational Schools. The course(s) must have a minimum of 16 hours, including 4 patient contact hours. As of January 1, 1994, the Board required all dentists who did not meet the requirements of subsection 2 below to submit an application and documentation of training in nitrous oxide/oxygen administration.
2. A Colorado licensed dentist who has safely administered conscious analgesia solely by means of nitrous oxide/oxygen inhalation techniques within the State of Colorado for the three years prior to October 30, 1987, should be deemed to have satisfied, the education/training specified under this Rule. In making a determination on safe administration and inducement of conscious analgesia accomplished solely by means of nitrous oxide/oxygen inhalation techniques, the Board shall consider any and all anesthesia/analgesia related incidents, accidents or complaints filed against the licensee.
3. The dentist and all personnel, including but not limited to, dental hygienists and dental auxiliaries, who render patient care services in a dental setting where nitrous oxide/oxygen is administered shall have proof of current basic life support (BLS) knowledge and skills.

D. Examination: Upon the effective date of this rule, prior to administration of nitrous oxide/oxygen, the dentist, dental hygienist, or assistant shall record, in the patient's chart, the patient's medical history and pertinent physical findings.

E. Documentation: Upon the effective date of this rule, when administering nitrous oxide/oxygen, the dentist, dental hygienist, or assistant shall record, in the patient's chart, the treatment given, the dosage administered and the patient's response to treatment.

F. Emergency Care: Prior to the administration of nitrous oxide/oxygen, the supervising dentist, dental hygienist, and auxiliaries shall have appropriate training to recognize the symptoms and reasonably treat the complications and emergencies incident thereto.

G. Office Facilities and Equipment: If conscious analgesia is accomplished solely by means of nitrous oxide/oxygen inhalation techniques, then the supervising dentist shall provide and ensure the following:

1. Fail safe mechanisms in the delivery system and an appropriate scavenging system;
2. The inhalation equipment must be evaluated for proper operation and delivery of inhalation agents prior to use on each patient;
3. Determination of adequate oxygen supply must be completed prior to use with each patient;
4. Baseline vital signs may be obtained at the discretion of the operator depending on the medical status of the patient and the nature of the procedure to be performed; AND
5. Appropriate equipment to monitor vital signs and maintain an adequate airway including but not limited to a blood pressure cuff, stethoscope and a method for administering positive pressure oxygen.

H. Delegating under direct supervision the monitoring and administration of nitrous oxide/oxygen to appropriately trained personnel pursuant to 12-35-110 (n):

1. The supervising dentist is responsible for determining the maximum dosage of nitrous oxide/oxygen analgesia and must record the dosage in the patient's dental chart prior to delegation.
2. The supervising dentist delegating must be approved by the Board under this rule to administer nitrous oxide/oxygen.
3. The dental hygienist or dental assistant accepting the delegation of the administration and monitoring of nitrous oxide/oxygen under direct supervision shall ensure that the dentist is approved by the Board to administer nitrous oxide/oxygen.
4. Education/Training Requirements for dental hygienists and auxiliaries administering and monitoring nitrous oxide/oxygen under direct supervision:
  - a. As of February 1, 1998, in order to administer and induce conscious analgesia solely by means of nitrous oxide/oxygen inhalation techniques, a dental hygienist or a dental assistant shall complete a course(s) conducted at an institution accredited by the American Dental Association Commission on Dental Accreditation or certified by

the Colorado Department of Higher Education Division of Private Occupational Schools. The course(s) must have a minimum of 16 hours, including 4 patient contact hours. The dental hygienist and dental assistant shall certify to the Board, on a form approved by the Board, compliance with the educational requirement.

I. "Monitoring" as that term is used in Rule XVII means:

1. The continual observation of the patient to ensure the stable physical condition of the patient and maintenance of a proper level of nitrous oxide/oxygen inhalation as determined by the supervising dentist; OR
2. The continual observation of the patient to ensure stable physical condition of the patient during recovery from the nitrous oxide/oxygen inhalation.
3. Unless a dental hygienist or dental assistant has received the training to administer nitrous oxide/oxygen inhalation, they may only monitor (observe) a patient during the use of nitrous oxide/oxygen inhalation. Monitoring may only be delegated under the direct supervision of a dentist approved/authorized to administer nitrous oxide/oxygen inhalation.

J. All equipment, as provided for in this Rule XVII shall be functional as operative at all times.

K. Morbidity and Mortality Report - A complete written report shall be submitted to the Board by the supervising dentist and any other person administering the nitrous oxide/oxygen inhalation within fifteen (15) days of any nitrous oxide/oxygen inhalation related incident resulting in patient morbidity or mortality which occurred while the patient was under the care of the dentist, and required hospitalization, emergency facility care, or emergency service response.

1. Such report shall include all of the following items:

- a. Description of dental procedure;
- b. Description of preoperative physical condition of the patient;
- c. List of the drugs and dosages administered;
- d. Detailed description of techniques utilized in administering the nitrous oxide;
- e. Description of adverse occurrence to include:

- 1) Detailed description of symptoms of any complications including, but not limited to, onset and type of symptoms in-patient;
  - 2) Treatment instituted on patient;
  - 3) Response of the patient to treatment.
- f. Description of the patient's condition on termination of any procedure undertaken.
2. The Board may request inspection of any written records related to this report.
  3. Pursuant to 12-35-107(1)(d), the Board may request an on-site evaluation of the dental facility related to this report.

**Rule XVIII. Administration of Local Anesthesia**  
(Amended August 11, 2004)

- A. "Local Anesthesia" means the elimination of sensations especially pain, in one part of the body by topical application or regional injection of drugs without causing the loss of consciousness.
- B. The dentist and all personnel, including but not limited to, dental hygienists and dental auxiliaries, who render patient care services in a dental setting where local anesthesia is administered shall have proof of current basic life support (BLS) knowledge and skills.
- C. All Colorado licensed dentists shall be authorized to administer local anesthesia. A dentist may delegate the physical administration of local anesthesia to trained and qualified dental hygienists pursuant to this Rule.
- D. Local Anesthesia Administration by Regional Injection by a Dental Hygienist.
  1. A Colorado licensed dental hygienist shall administer local anesthesia agents by regional injection of drugs only under the direct supervision of a Colorado licensed dentist.
  2. A dental hygienist shall be qualified to administer local anesthetic agents upon successful completion of courses conducted by a school accredited by the American Dental Association Commission on Dental Accreditation which meets the following requirements:
    - a. Twelve (12) hours of didactic training including but not limited to:
      - 1) Anatomy; and
      - 2) Pharmacology; and

3) Techniques; and

4) Physiology; and

5) Medical Emergencies AND

b. Twelve (12) hours of clinical training which shall include the administration of at least six (6) infiltration and six (6) block injections.

3. As of October 30, 1987, prior to the administration and inducement of local anesthesia by regional injection as provided for in this rule a dental hygienist licensed pursuant to the Colorado Dental Practice Law shall certify to the Board, on a form approved by the Board, compliance with all applicable requirements specified in Rule XVIII.