

## Chapter DE 11

## ANESTHESIA

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**DE 11.01 Authority and purpose.** The rules in this chapter are adopted under authority in ss. 15.08 (5) (b), 227.11 (2) (a) and 447.02 (2) (b), Stats., for the purpose of defining standards for the administration of anesthesia by dentists. The standards specified in this chapter shall apply equally to general anesthesia and sedation, regardless of the route of administration.

**History:** Cr. Register, August, 1985, No. 356, eff. 9-1-85; am. Register, October, 1988, No. 394, eff. 11-1-88; am. Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.02 Definitions.** In this chapter,

(1) "Analgesia" means the diminution or elimination of pain in the conscious patient.

(2) "Conscious sedation" means a minimally depressed level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation and verbal command, produced by a pharmacologic or non-pharmacologic method, or a combination of pharmacologic and non-pharmacologic methods.

(3) "Deep sedation" means a controlled state of depressed consciousness, accompanied by partial loss of protective reflexes, including inability to respond purposefully to verbal command, produced by a pharmacologic or non-pharmacologic method, or a combination of pharmacologic and non-pharmacologic methods.

(4) "General anesthesia" means a controlled state of unconsciousness accompanied by partial or complete loss of protective reflexes, including inability to independently maintain an airway and respond purposefully to physical stimulation or verbal command, produced by a pharmacologic or non-pharmacologic method, or a combination of pharmacologic and non-pharmacologic methods.

(5) "Parenteral sedation" means a depressed level of consciousness produced by a pharmacologic method, including intravenous, intramuscular, subcutaneous, submucosal, and rectal routes of administration, which retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation and verbal command.

**History:** Cr. Register, August, 1985, No. 356, eff. 9-1-85; r. and recr. Register, October, 1988, No. 394, eff. 11-1-88; r. (4), renun. (1) to (3) to be (2) to (4) and am., cr. (1) and (5), Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.03 Restrictions on the use of general anesthesia and deep sedation.** No dentist may employ or administer

general anesthesia or deep sedation on an outpatient basis for dental patients unless the dentist meets one of the following conditions:

(1) The dentist has completed the equivalent of a minimum of one year of advanced training in anesthesiology and related academic subjects beyond the undergraduate dental school level in a program approved by the council on dental education of the American dental association. The advanced training program must be one which prepares the dentist to use general anesthesia, local anesthesia, sedation and analgesia, and to apply the psychological aspects of managing pain and apprehension for the dental patient. The training must include a minimum of 6 months devoted exclusively to learning general anesthesia and related topics in a hospital operating room, with the dentist assigned full-time to the hospital anesthesiology service, and must include experience in the administration of general anesthesia as well as other forms of pain control for ambulatory patients.

(2) The dentist is a diplomate of the American board of oral and maxillofacial surgery, or is a fellow or a member of the American association of oral and maxillofacial surgeons, or is a fellow of the American dental society of anesthesiology.

(3) The dentist employs or works in conjunction with a certified registered nurse anesthetist, or with a licensed physician or dentist who is a member of the anesthesiology staff of an accredited hospital, provided that the anesthesia personnel must remain on the premises of the dental facility until the patient under general anesthesia or deep sedation regains consciousness.

(4) The dentist has been using general anesthesia on an outpatient basis in a competent manner for 5 years before September 1, 1991, provided that the dentist complies with all other provisions of this chapter.

**Note:** A copy of the *Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry* is available for review at the board office, 1400 East Washington Avenue, Madison, WI. A copy may also be obtained from the publisher, the Council on Dental Education of the American Dental Association, 211 East Chicago Avenue, Chicago, IL. The *Guidelines* contain authoritative recommendations on the contents of training programs intended to develop proficiency in the use of anesthesia and sedation, and are useful guidance for persons considering such a program.

**History:** Cr. Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.04 Restrictions on the use of parenteral sedation.** No dentist may employ or administer parenteral sedation

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on an outpatient basis for dental patients unless the dentist meets one of the following conditions:

(1) The dentist satisfies one of the conditions of s. DE 11.03.

(2) The dentist has successfully completed an intensive course in the use of parenteral sedation which includes physical evaluation of patients, airway management, and mechanical monitoring. The course shall be sponsored by and presented at a hospital, university, or other educational facility accredited by the council on dental education of the American dental association where adequate facilities are available for patient care and the management of medical emergencies, and shall be approved by the board or the council on dental education of the American dental association. The course shall consist of a minimum of 60 hours of instruction plus management of at least 10 patients on parenteral sedation in a supervised clinical setting. During the course of instruction, there shall never be more than 5 students to one instructor, and the instructor shall be prepared to assess the competency of all participants at the conclusion of the course.

(3) The dentist has been using parenteral sedation on an outpatient basis in a competent manner without incident for 5 years preceding September 1, 1991.

*Note:* A copy of the *Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry* is available for review at the board office, 1400 East Washington Avenue, Madison, WI. A copy may also be obtained from the publisher, the Council on Dental Education of the American Dental Association, 211 East Chicago Avenue, Chicago, IL. The *Guidelines* contain authoritative recommendations on the contents of training programs intended to develop proficiency in the use of anesthesia and sedation, and are useful guidance for persons considering such a program.

*History:* Cr. Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.05 Restrictions on the use of nitrous oxide inhalation sedation.** No dentist may employ or administer nitrous oxide inhalation sedation on an outpatient basis for dental patients unless the dentist meets one of the following conditions:

(1) The dentist satisfies one of the conditions of s. DE 11.03.

(2) The dentist has successfully completed an intensive course in the use of nitrous oxide inhalation sedation which includes physical evaluation of patients, airway management, and mechanical monitoring. The course shall be sponsored by and presented at a hospital, university, or other educational facility accredited by the council on dental education of the American dental association where adequate facilities are available for patient care and the management of medical emergencies, and shall be approved by the board or the council on dental education of the American dental association. The course shall consist of a minimum of 24 hours of instruction plus management of at least 5 patients on nitrous oxide inhalation sedation in a supervised clinical setting. During the course of instruction, there shall never be more than 10 students to one instructor, and the instructor shall be prepared to assess the competency of all participants at the conclusion of the course.

(3) The dentist has been using nitrous oxide inhalation conscious sedation in a dental office in a competent manner without incident for 3 years preceding September 1, 1991.

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*Note:* A copy of the *Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry* is available for review at the board office, 1400 East Washington Avenue, Madison, WI. A copy may also be obtained from the publisher, the Council on Dental Education of the American Dental Association, 211 East Chicago Avenue, Chicago, IL. The *Guidelines* contain authoritative recommendations on the contents of training programs intended to develop proficiency in the use of anesthesia and sedation, and are useful guidance for persons considering such a program.

*History:* Cr. Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.06 Risk management.** To minimize risks to the patient, a dentist who uses general anesthesia or conscious and deep sedation during the course of dental treatment shall:

(1) Use only those drugs and techniques which they are competent to administer based on education, training and experience, and for which they understand the indications, contraindications, adverse reactions and their management, drug interactions and proper dosage for the desired effect;

(2) Limit the use of general anesthesia or conscious and deep sedation to patients who require them due to such factors as the extent and type of the operative procedure, psychological need or medical status;

(3) Conduct comprehensive pre-operative evaluation of each patient to include a comprehensive medical history, assessment of current physical and psychological status, age and preference for and past experience with sedation and anesthesia, and record this information as specified in s. DE 11.07;

(4) Conduct continuous physiologic and visual monitoring of the patient from the onset of the procedure through recovery;

(5) Have available appropriate emergency drugs and facilities as specified in ss. DE 11.08 and 11.11, and maintain proficiency in their use;

(6) Utilize sufficient support personnel who are properly trained for the functions they are assigned to perform; and

(7) Treat medically compromised patients in a hospital or similar setting equipped to provide for their care. The term "medically compromised" refers to risk classifications of the American society of anesthesiology.

*History:* Cr. Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.03, Register, August, 1991, No. 428, eff. 9-1-91; corrections in (3) and (6) made under s. 13.93 (2m) (b) 7, Stats., Register, August, 1991, No. 428.

**DE 11.07 Examination.** Prior to administration of general anesthesia or parenteral sedation to any patient, a dentist shall record in the patient's file the following information:

(1) The patient's vital statistics;

(2) The patient's medical history which shall include any:

(a) Medical treatment received in the past 5 years;

(b) Current medication prescribed;

(c) Allergies diagnosed;

(d) Breathing problems;

(e) Respiratory disorders;

(f) Fainting or dizziness;

- (g) Nervous disorders;
  - (h) Convulsions;
  - (i) Epilepsy;
  - (j) Heart problems;
  - (k) Stroke;
  - (l) Rheumatic fever;
  - (m) Hepatitis or liver disease;
  - (n) Kidney disease;
  - (o) Diabetes;
  - (p) Anemia;
  - (q) High or low blood pressure; and,
  - (r) Pregnancy, if applicable.
- (3) The findings of a physical examination conducted by the dentist which shall include:
- (a) General appearance;
  - (b) Presence of scars or unusual masses on the patient's head or neck;
  - (c) Abnormal motor or sensory nerve deficits;
  - (d) Any limitations of the oral opening; and,
  - (e) Any pulmonary, neurologic or physiologic test indicated by the patient's medical history, as specified in sub. (2).
- (4) Radiographic studies.

*History:* Cr. Register, August, 1985, No. 356, eff. 9-1-85; renum. from DE 11.03, Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.04, Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.08 Complications and emergencies.** In order to administer general anesthesia or conscious and deep sedation, a dentist shall be familiar with the symptoms and treatment of the following complications and emergencies which may occur:

- (1) Laryngospasm;
- (2) Bronchospasm;
- (3) Aspiration of emesis;
- (4) Angina pectoris;
- (5) Myocardial infarction;
- (6) Hypotension;
- (7) Hypertension;
- (8) Cardiac arrest;
- (9) Drug allergy;
- (10) Hyperventilation; and,
- (11) Convulsions.

*History:* Cr. Register, August, 1985, No. 356, eff. 9-1-85; renum. from DE 11.04 and am. (intro.), Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.05, Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.09 Drugs.** The following drug types, as are appropriate to the type of anesthesia or sedation used, shall be

available in any dental office where general anesthesia or conscious and deep sedation is administered:

- (1) Intravenous fluids;
- (2) Cardiotonic drugs;
- (3) Vasopressors;
- (4) Anti-arrhythmic agents;
- (5) Anti-hypertensive agents;
- (6) Diuretics;
- (7) Antiemetics;
- (8) Narcotic antagonists; and,
- (9) Phenothiazine and tranquilizers.

*History:* Cr. Register, August, 1985, No. 356, eff. 9-1-85; renum. from DE 11.05 and am. (intro.), Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.06, Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.10 Recordkeeping.** In a patient's record file, a dentist shall document the treatment given and the patient's response to treatment. The record shall include:

- (1) A written and dated medical history which is signed by the dentist;
- (2) A written examination chart with the proposed procedure clearly indicated and probable complications written on the record;
- (3) A consent form signed by the patient for any surgery proposed;
- (4) Radiographs;
- (5) Anesthetic type, amount administered and any unusual reactions;
- (6) All prescriptions ordered; and,
- (7) Pre-operative, intra-operative and post-operative vital signs.

*History:* Cr. Register, August, 1985, No. 356, eff. 9-1-85; renum. from DE 11.07, Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.11 Office facilities and equipment.** No general anesthesia or sedation may be administered to a patient in a dental office unless the dental office contains:

- (1) An operating room;
- (2) An operating chair or table;
- (3) Suction equipment;
- (4) An auxiliary lighting system which provides light intensity adequate to permit completion of any dental procedure in progress;
- (5) Oxygen and gas-delivery systems which shall include:
  - (a) A capability to deliver oxygen to a patient under positive pressure; and,
  - (b) Gas outlets.
- (6) (a) For use of nitrous oxide inhalation conscious sedation, the following equipment:

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1. Adequate equipment with fail-safe features and a 25% minimum oxygen flow;

2. A system equipped with a "scavenger" mask.

(b) Licensees shall have 1 year after November 1, 1988 to comply with par. (a) 2.

(c) For the purpose of this subsection "nitrous oxide inhalation conscious sedation" means an altered level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation or verbal command produced through the administration by inhalation of a combination of nitrous oxide and oxygen.

(7) A sterilization area;

(8) A recovery area which shall include installed oxygen and suction systems or the capability to operate portable oxygen and suction systems;

(9) Gas storage facilities;

(10) Emergency airway equipment and facilities which shall include:

(a) A full-face mask;

(b) Oral and nasopharyngeal airways;

(c) Endotracheal tubes suitable for children and adults;

(d) A laryngoscope with reserve batteries and bulbs;

(e) McGill forceps; and,

(f) Equipment for performing a coniotomy or tracheostomy.

(11) Monitoring equipment which shall include:

(a) A sphygmomanometer; and,

(b) A stethoscope.

*History:* Cr. Register, August, 1985, No. 356, eff. 9-1-85; am. (intro.), renum. (6) to (10) to be (7) to (11), cr. (6), Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.08 and am. (intro.), Register, August, 1991, No. 428, eff. 9-1-91.

**DE 11.12 Reports of death or injury to the dentistry examining board.** All dentists shall submit a complete report within a period of 30 days to the dentistry examining board of any mortality or other incident occurring in the outpatient facilities of such a dentist which results in temporary or permanent physical or mental injury requiring hospitalization of the patient during, or as a direct result of, dental procedures or anesthesia related thereto.

*History:* Cr. Register, October, 1988, No. 394, eff. 11-1-88; renum. from DE 11.09, Register, August, 1991, No. 428, eff. 9-1-91.