THE ADA'S NEW EMERGENCY AIRWAY COURSE FOR SEDATIONISTS

Included in the American Dental Association's (ADA's) 2007 *Guidelines for the Use of Sedation and General Anesthesia by Dentists* is an educational requirement for dentists giving moderate sedation, deep sedation, and general anesthesia to have current certification in Basic Life Support for Healthcare Providers and either Advanced Cardiac Life Support (ACLS) or an appropriate dental sedation/anesthesia emergency management course. Because the latter course did not exist at a national level like ACLS, the ADA financially supported the development of an emergency course specifically for dental sedationists. A committee from the American Dental Society of Anesthesiology was awarded a competitive grant to develop this course for the ADA, and the ADA, which paid for it and now owns it, has begun training dentists in their new course entitled "The Recognition and Management of Complications During Minimal and Moderate Sedation."

Because the most common emergency in sedated patients is related to a variety of complications that ultimately can cause impairment of respiration, the course emphasizes maintenance of airway patency and use of adjunctive equipment such as the bag-valve-mask, the oropharyngeal airway, and the laryngeal mask airway (LMA) to help provide positive pressure ventilation for an oversedated and possibly apneic patient. However, the course also covers other areas, such as pharmacological reversal of benzodiazepines and opioids and the use of drugs such as adrenergic agonists and anticholinergic agents for management of potentially life-threatening complications such as acute allergic reactions, bronchospasm, severe bradycardia, and hypotension.

The course is divided into 2 separate parts. The first section is a very-well-conceived didactic presentation that is taken on a computer at home or in the office and involves completion of an assessment of the knowledge gained by the participant. Once that course is successfully completed, the dentist can elect to take the second section, which is a separate, hands-on, half-day session. The dentist first completes task-training skills on manikins or human partners, such as changing an empty oxygen cylinder and connecting to an appropriate flow meter to provide oxygen via nasal cannula, placing an oral airway, providing positive pressure ventilation via a bag-valve-mask device, and insertion of an LMA. The dentist must diagnose a problem, quickly determine the correct drug to

administer from the various emergency drugs available, draw up a therapeutic dose into a syringe, and administer it intramuscularly into a manikin. The dentist must also set the alarms on monitoring equipment and then practice monitoring and recording the vital signs on a human laboratory partner. Finally, the dentist leads an office team of simulated auxiliaries, similar to the megacode in ACLS; diagnoses a problem on a high-fidelity human simulator manikin called SimMan; and then provides appropriate treatment under realistic emergency conditions. Combined with a previously taken Basic Life Support for Healthcare Providers course, which includes practice with an automated external defibrillator, this course should be a wonderful learning experience for the dentist who rarely has to deal with serious medical emergencies in the office.

For the dentist who provides moderate sedation, there are a multitude of advantages for taking both parts of the course. Even dentists who provide only minimal sedation with either nitrous oxide-oxygen or a single dose of oral sedative with or without nitrous oxide can benefit from taking this course. Not only does it give the dentist experience in managing specific sedation-related emergencies, but it also gives the dentist more experience and confidence in knowing how to think clearly and rapidly during any type of emergency situation that may arise in the office or in the community. Additionally, dentists who provide deep sedation and general anesthesia who were trained before the LMA was invented may also benefit from taking this course, even though it is designed primarily for minimal and moderate sedationists.

As good as this course should be for the minimal and moderate sedationist, it must be remembered that it is not a substitute for the extensive clinical training that is necessary to provide consistently safe deep sedation and general anesthesia. Successful completion of the course should not give sedation-trained dentists a false sense of security that they can now encroach upon the realm of deep sedation and occasionally have to maintain the airway of their unconscious patient because they feel that they can rely upon the training in the course to successfully manage those complications that occur with these deeper levels of sedation. The course is also not intended to encourage the moderate sedationist to use drugs such as propofol, methohexital, etomidate, and sevoflurane, which have a very narrow margin for maintaining consciousness if only moderate sedation is the goal and especially if their state-issued permit is limited to moderate (conscious) sedation. Rather, the course is intended to

improve the chances for a successful resuscitation and a good outcome in the extremely rare event that the moderate sedationist accidentally overdoses an overly sensitive patient or is faced with a similar life-threatening emergency from some other cause.

Because minimal sedationists are trained to provide a level of sedation that is far from producing unintended loss of consciousness, the course is more likely to be used by that group for a non-sedation-related emergency, such as an acute myocardial infarction resulting in cardiac arrest or an acute allergic reaction, rather than an emergency related to minimal sedation. Because moderate sedationists are trained to provide a level of sedation in which the production of unintended loss of consciousness is possible but highly unlikely, this course provides training similar to that of commercial pilots who use simulation technology to upgrade their emergency management skills for any rare but possible crisis that may occur.

It is also hoped that dentists who successfully complete this course recognize that their skills will deteriorate over time and that regular retraining is mandatory

to maintain the competency level they achieved during their initial training. There is a huge difference between knowing what to do and actually being able to do it quickly and correctly the first time when a patient's life is on the line. It is also hoped that state dental boards will rewrite laws and rules that recognize the importance for dentists who are sedationists to retake this course on a regular basis in order to maintain their competency in managing emergencies before renewing their sedation permits. Because of the ADA's standardization of the course's goals and objectives, the teaching methods, and the content, all dentists who complete the course should have the same knowledge base and similar skills sets no matter where in the country the course is given. Your editor heartily endorses the ADA's course entitled "The Recognition and Management of Complications During Minimal and Moderate Sedation." Our patients deserve this additional margin of safety.

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