

SCIENTIFIC ARTICLE

Dentist Anesthesiologists

William A. MacDonnell, DDS, FACD, FASDA



William A. MacDonnell, DDS, FACD, FASDA

Dr. William A. MacDonnell is a graduate of Georgetown University School of Dentistry and completed his residency in anesthesiology at the University of Pittsburgh. He served as a staff anesthesiologist at the John Dempsey University Hospital, University of Connecticut School of Dental Medicine and Medicine from 1978 to 1983. He has served on the clinical faculty since 1983. Dr. MacDonnell has been awarded the Georgetown University W. Marion Falls Award for Leadership, the Horace Wells Club Award of Merit, the Daniel Lynch Award of the Dental Society of Greater Waterbury, and the Connecticut State Dental Association Horace Hayden Award. Dr. MacDonnell chaired the CSDA 160th Anniversary Horace Wells Memorial Restoration Committee. Bill and his wife, Margie, have four children. He can be reached at 158 Hunter Drive, West Hartford, CT 06107; 860-561-1233; macdonnellw@adamember.net (e-mail).

Pain and fear have been obstacles for patients seeking dental care since the beginning of time. Dentists have always sought methods of eliminating fear and pain. If one graduated from dental school 30 years (mid-1970s) ago you were taught that all dental procedures could be treated with local anesthesia and general anesthesia was basically limited to oral surgery. Unless, that is, you were trained at the University of Pittsburgh, Ohio State, or Loma Linda where sedation and general anesthesia were considered an option for any dental care. Drs. Leonard Monheim, Morgan Allison, and Niels Jorgensen all recognized the importance of anesthesia for dental care. Fortunately, dental education has made great advances in this area. Oral (enteral) sedation and nitrous oxide sedation are used routinely in dental practices to provide routine anxiety control. Some dentists have had the opportunity to be trained in intravenous (IV) conscious sedation and a few dentists have had general anesthesia residencies. The knowledge base in anesthesiology continued to expand and the anesthesia training programs were increasing in length.

In the 1980s and 1990s malpractice insurance premiums skyrocketed and many dentists who administered IV conscious sedation were forced to discontinue providing that service. The question remained that without the training in sedation and general anesthesia how could dentists provide care for this needy dental population? Thomas Friedman, author of "The World is Flat," would advise us that in a flat world we should "insource" a means of providing sedation/anesthesia for our patients and hence the dentist anesthesiologists have helped to meet the needs of both patients and dentists. In the 1970s we were told that there was no need for dentists to be trained in anesthesia. At that time there also was no need for a practice that provided only anesthesia for dental patients. In 2005 there are more than 200 dentist anesthesiologists practicing in all parts of the United States and Canada.

The term "dentist anesthesiologist" first came into common use more than 25 years ago (1980) with the founding of the American Society of Dentist Anesthesiologists (ASDA) (www.asdahq.org).

The ASDA was originally formed for those dentists with 2 or more years of advanced training in anesthesiology. The ASDA was an outgrowth of the American Dental Society of Anesthesiology (ADSA) (www.adsahome.org) that was founded in 1953 to meet the needs of all dentists involved with anesthesia for dentistry.

Dentist anesthesiologists have a minimum of 2 years of training in anesthesiology. Several of the dental anesthesia residency programs offer the opportunity of a third year of training.

DENTIST ANESTHESIOLOGIST: SCOPE OF PRACTICE

Dentist anesthesiologists are active in private practice, dental education, pain control centers, and dental anesthesia research. The majority of dentist anesthesiologists provide anesthesia for other dentists and their patients. The operating dentist provides the needed dental care and the dentist anesthesiologist provides the sedation/anesthesia. Dentist anesthesiologists provide all the monitoring equipment, medications, and emergency equipment required for anesthesia services. There are dentist

anesthesiologists who practice by directing the pain and anxiety control while providing dental treatment while team members monitor their patients.

“There are cases where the dentist anesthesiologist may provide only monitoring (e.g., continual blood pressure readings and continuous pretracheal auscultation, pulse oximetry, and electrocardiography) for medically compromised dental patients, such as those with hypertension, angina pectoris, multiple allergies, and other conditions that confront the operating dentist on a routine basis. Nervous or uncooperative patients may benefit from intravenous conscious sedation, or may require deep sedation or general anesthesia for the dentist to complete the necessary care. The dentist anesthesiologist provides a safe, relaxed atmosphere for the patient and the operating dentist.

Dentist anesthesiologists serve on the faculties of several dental schools teaching pain and anxiety control to dental students and residents; providing continuing education courses in conscious sedation, local anesthesia, pharmacology, and medical emergencies, and conduct research related to sedation and anesthesia in dentistry.

Dentist anesthesiologists also serve as members of the pain management services at hospitals, dental schools, and other health care facilities lending their expertise in regional nerve blockade, pharmacology, pain and anxiety control to the diagnosis and treatment of orofacial pain (www.asdahq.org.)”

WHERE ARE DENTIST ANESTHESIOLOGISTS LOCATED?

There are a growing number of patients that are requesting sedation/anesthesia for their dental care. For those dentists who choose not to administer intravenous conscious sedation, deep sedation, or general anesthesia, the introduction of a dentist anesthesiologist to can be a great addition to many practices. There are dentist anesthesiologists practicing in several states (AZ, CA, CO, CT, FL, GA, IL, IN, MA, MD, MO, MT, NC, NJ, NM, NV, NY, OH,

OK, OR, PA, TN, TX, VA, WA, WV, WY) and Canada. They can be reached through the ASDA Website (www.asdahq.org) and clicking on “find a member.”

ANESTHESIA: GIFT OF THE DENTISTS

Pain and anxiety control has always been an important part of the dental profession. “Anesthesia Gift of the Dentists” is the title of a presentation by the late David Little, MD, Chair of the Department of Anesthesia at the Hartford Hospital more than 30 years ago. Dr. Little outlined how two dentists, Horace Wells (1844) and his student, William T.G. Morton (1846), forever changed the way surgery, medicine, and dentistry are practiced today. Horace Wells, “Hartford’s Greatest Humanitarian” is credited with the “Discovery of Anesthesia” by the American Dental Association (1863) and the American Medical Association (1870 and 1944). Wells was the first “dentist anesthesiologist.” In December of 1844 he started providing anesthesia for physicians and dentists in Hartford. Morton first introduced ether in the Ether Dome in 1846 at Massachusetts General Hospital. General anesthesia is now, and has always been, an important part of the dental profession. Recently, dentists in Great Britain have lost the right to administer general anesthesia. Organized dentistry in the United States must support the right of trained dentists to provide general anesthesia and the training of dentists in anesthesia.

AMERICAN BOARD OF DENTAL ANESTHESIOLOGY

The American Board of Dental Anesthesiology (www.adba.org) was established in 1994 with the mission “to ensure that all dentists who have trained according to Part II of the American Dental Association’s ‘Guidelines for Teaching the Comprehensive Control of Anxiety and Pain in Dentistry’ will attain and maintain the highest possible level of knowledge and skill in the spectrum of anesthesiology for dentistry.” The Board requires successful completion of both written and oral examinations for diplomat designation. Contin-

ued diplomat status requires periodic recertification.

MALPRACTICE INSURANCE AND THE DENTIST ANESTHESIOLOGIST

During the dental malpractice crisis of the 1980s and 1990s, sedation and anesthesia became a very important topic for malpractice carriers. There were surcharges and increasing rates. The largest malpractice carrier at the time, the Professional Protector Plan (CNA) began tracking all cases in which a dentist anesthesiologist provided the sedation/anesthesia. After almost 10 years they found that there were no losses in those cases where a dentist anesthesiologist provided the anesthesia and a separate dentist provided the dental care. As a direct result of that data the majority of malpractice carriers make no rate modification for the dentists who work with dentist anesthesiologists.

SEDATION/ANESTHESIA TRAINING

The majority of practicing dentists use local anesthesia as their primary means of providing pain control in the office setting. Approximately 50% of dental practices provide nitrous oxide conscious sedation as a means of providing anxiety control. Fortunately, oral (enteral) sedation is being used by an increasing number of dentists. There are an increasing number of enteral conscious sedation continuing education courses being offered to dentists. It is this author’s recommendation that all dental students be taught the use of both nitrous oxide conscious sedation and enteral sedation as part of their undergraduate dental school training. Part Two of the American Dental Association (ADA) Teaching the Comprehensive Control of Anxiety and Pain at the Advanced Education Level states that advanced education programs in endodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, general practice residency, and advanced education in general dentistry have requirements specific to the training in anxiety and pain control. Advanced

training in sedation at the undergraduate level remains very limited for dental students. One exception is the University of Pittsburgh School of Dental Medicine that has offered an 18-month elective in sedation for dental students for the past 30 years.

There are a few continuing education courses in intravenous conscious sedation available for dentists, such as the one offered at the University of Southern California and the University of Oregon by Drs. Stanley Malamed and Ken Reed. The course offers approximately 100 hours spread out over several months. The administration of deep sedation and general anesthesia requires a minimum of 2 years of training according to the ADA Guidelines.

The use of methods of pain and anxiety control by all dentists is guided by two American Dental Association documents: "The American Dental Association (ADA) Guidelines for the Use of Conscious Sedation, Deep Sedation, and General Anesthesia for Dentists" and the "Guidelines for the Teaching of the Comprehensive Control of Anxiety and Pain in Dentistry." Both were adopted by the ADA House of Delegates in October 2005. These guidelines have been developed regarding the education and training of dentists using sedation/anesthesia. They serve as a guide to "...allow dentists to provide their patients with the benefits of anxiety and pain control in a safe and efficacious manner." According to the ADA an "advanced education program in anesthesia and anxiety and pain control must be a minimum of 2 calendar years in length" of that time a minimum of 12 months should be devoted exclusively to clinical training in general anesthesia. There are currently six programs in North America that provide that provide general anesthesia training for dentists.

The University of Pittsburgh School of Dental Medicine that established the first Department of Anesthesiology at a dental school in 1949 by Dr. Leonard Monheim. Leonard Monheim, DDS,

Professor and Chair of Anesthesiology University of Pittsburgh, Chief of Anesthesia Presbyterian University Hospital, Pittsburgh, recognized the need for the post-graduate training of dentists in anesthesia. In the 1950s, 1960s, and 1970s there were several departments of anesthesia that offered 1-year anesthesia residency slots for dentists. Many of these dentists went on to continue their training in oral and maxillofacial surgery. Others went on to use their anesthesia training in general practice. In the 1970s C.R. Bennett, DDS, PhD, Professor and Chair Department of Anesthesiology at the University of Pittsburgh School of Dental Medicine established a 2-year dental anesthesiology residency at the University of Pittsburgh. Ohio State University established a 2-year dental anesthesiology residency about the same time. In the mid-1970s there were more than 50 anesthesia residencies that accepted dentists for training in anesthesiology. During that time anesthesia training programs were not attracting American medical students. That trend changed in the 1980s as anesthesiology became a very popular specialty for the graduates of American medical schools. The anesthesia positions for dentists became greatly reduced.

All six of the dental anesthesiology programs participate in the ADA PASS Program. For more information contact the individual residency program:

1. University of Pittsburgh School of Dental Medicine
Department of Anesthesiology G-89
Salk Hall
Pittsburgh, PA 15261
Dr. Michael Cuddy
Mc2@pitt.edu
www.dental.pitt.edu/sdm/anesthesiology.php
2. Loma Linda University School of Dentistry
Department of Anesthesiology
Loma Linda, CA 92350
Larry Trapp, DDS
ltrapp@sd.llu.edu
3. Mount Sinai Medical Center

One Gustav L. Levy Place
New York, NY 10029
Dr. David Valauri
David.Valauri@mssm.edu
www.mssm.edu/dent/education/dent_anes/

4. The Ohio State University College of Dentistry
2131 Postle Hall
305 West 12th Avenue
Columbus, OH 43210
Joel M. Weaver, DDS, PhD
www.dent.ohio-state.edu/anesthesiology
5. University of Toronto Faculty of Dentistry
Department of Anesthesiology
124 Edward Street
Toronto, Ontario, Canada M5g 1G6
Daniel A. Haas, DDS, PhD, FRCD
www.utoronto.ca/dentistry/academic/graduate/DentalAnaesthesiaMsc.html
6. University of California, Los Angeles
School of Dentistry
Center for Health Sciences
Los Angeles, CA 90095
John A. Yagiela, DDS, PhD
<http://uclasod.dent.ucla.edu/dividions/index.asp?id=18>

Our profession has come a long way in the past 30 years with our ability to provide pain and anxiety control for our patients. Dental students are learning much more about pain and anxiety control. Continuing education courses on the subject are improving and increasing. We must support the training of dentists in sedation and anesthesia.

Dentist anesthesiologists compliment all the improvements in the profession in the areas of pain and anxiety control. Dentist anesthesiologists are a growing group of dentists meeting the needs of patients that either require or request sedation/anesthesia for their dental care. Dentists like the comfort and safety that treating patients with a dentist anesthesiologist provides. Dentist anesthesiologists enable dentists to treat medically compromised patients and those patients that would normally avoid routine dental care.