COUNCIL ON DENTAL EDUCATION AND LICENSURE
AMERICAN DENTAL ASSOCIATION
VIDEO CONFERENCE, CHICAGO
JANUARY 21-22, 2021

Call to Order: Dr. Jacqueline Plemons, chair, called a regular meeting of the Council on Dental Education and Licensure to order on Thursday, January 21, 2021 at 4:00 p.m. via video conference.

Roll Call: Dr. Cheska Avery-Stafford, Dr. Uri Hangorsky, Dr. Willis Stanton Hardesty Jr., Dr. Eileen R. Hoskin, Dr. Steven M. Lepowsky, Dr. Jun S. Lim, Dr. William M. Litaker, Dr. Maurice S. Miles, Dr. Barbara L. Mousel, Dr. James D. Nickman, Dr. David L. Nielson, Dr. Joan Otomo-Corgel, Dr. Jacqueline Plemons, Dr. Bruce R. Terry and Dr. Donna Thomas-Moses were present. Dr. Linda C. Niessen and Dr. Daniel A. Hammer attended portions of the meeting.

Dr. Linda Himmelberger attended as the ADA Board Liaison to the Council. Ms. Sydney Shapiro attended as student liaison of the American Student Dental Association.

The following guests attended portions of the meeting: Ms. Catherine Baumann, Director, National Commission on Recognition of Dental Specialties and Certifying Boards, Ms. Mary Borysewicz, Director, Commission for Continuing Education Provider Recognition, Dr. Benoit Soucy, Director, Clinical and Scientific Affairs, Canadian Dental Association, Dr. Denice Stewart, Chief Policy Officer, American Dental Education Association, Dr. Sherin Tooks, Director, Commission on Dental Accreditation and Dr. David Waldschmidt, Director, Testing Services and Secretary, Joint Commission on National Dental Examinations.

In addition to the Council staff, the following ADA staff members attended all or portions of the meeting: Ms. Cathryn Albrecht, Senior Associate General Counsel, Mr. Thomas Elliott, Deputy General Counsel and Director, Council on Ethics, Bylaws and Judicial Affairs, Dr. Daniel J. Klemmedson, President, American Dental Association, Dr. Kathleen T. O'Loughlin, Executive Director, Dr. Cesar R. Sabates, President-elect, American Dental Association and Dr. Anthony J. Ziebert, Senior Vice-President, Education and Professional Affairs.

Adoption of Agenda, Disclosure of Business or Personal Relationships, and ADA Professional Conduct Policy: The Council approved the agenda, and authorized the chair to alter the order of the agenda items as necessary to expedite business. Dr. Plemons directed the Council's attention to the ADA Disclosure Policy. No personal, professional or business relationships were disclosed.

Affirmation of E-mail Ballots: The Council acknowledged e-mail ballots since the June 2020 meeting:

a. Minutes: June 17-18, 2020 (Ballot 2020-2)
b. Minutes: September 21, 2020 (Ballot 2020-3)
c. Support for American Dental Board of Medicine Application for National Certifying Board Recognitions (Ballot 2021-1)

Consent Calendar: A consent calendar was prepared to expedite the business of the Council. Dr. Plemons reminded Council members that any report, recommendation or resolution could be removed from the consent calendar for discussion. The Dental Education's Report, Update on Activities of the Commission on Dental Accreditation (CODA), was removed from the Consent Calendar by Dr. Linda Niessen. The following reports in their entirety were placed on the consent calendar and adopted as received:

Dental Education Committee:

Annual Report of the National Board for Certification in Dental Laboratory Technology (NBC)

Annual Report of the Dental Assisting Nation Board, Inc. (DANB)

Actions Taken by the 2020 House of Delegates

Licensure Committee:

Actions Taken by the 2020 House of Delegates

Update on the Review of the CEBJA Statement "Ethical Consideration When Using Patients in the Examination Process"

Update on Bills and Changes in State Regulations

Update on the DLOSCE

Update on the Coalition for Modernizing Dental Licensure

Recognition of Specialties and Interests Areas in General Dentistry Committee:

Review of American Dental Board of Oral Medicine Application for National Board Recognition

Anesthesiology Committee:

Update on Plans for 2020 Invitational Consensus Conference

Reports of Related Groups

ADA Board of Trustees Liaison: On the behalf of the Board of Trustees, Dr. Himmelberger provided the Council with an update on ADA Board activities. Dr. Himmelberger commended Dr. O'Loughlin and all ADA staff for their hard work and dedication supporting members and dentistry during the COVID-19 crisis, particularly advocating for PPP loans, helping dentists get on the list for PPE distribution and providing return to work guidance and other resources to members and nonmembers. Dr. Himmelberger also noted that she is a former Council member and pleased to be serving as the Council's Board Liaision this year.

American Association of Dental Boards (AADB): Dr. Robert Zena was unable to attend and no written report was submitted.

American Dental Education Association (ADEA): On behalf of ADEA, Dr. Stewart thanked the ADA and Council for their efforts during the COVID-19 pandemic and proceeded with highlighting recent ADEA events and activities. Dr. Stewart announced that the ADEA 2021 Annual Session and Exhibition will be held virtually on March 13-16, 2021. Council members were extended an invitation and directed to ADEA's website for additional information and registration. Dr. Stewart shared that the online community platform, ADEA Connect, launched in early 2020, proved to be an effective platform during the COVID-19 pandemic, enabling communication between ADEA councils, members and staff. ADEA Connect has 97 communities that are engaging members in discussion and collaborative exchange. Dr. Stewart reported that in the summer and fall 2020 ADEA, Henry Schein, Inc. and the Federal Emergency Management Agency (FEMA) collaborated on an initiative that involved procuring and delivering KN95 masks to dental schools and allied dental education programs to be used for

patient care. Close to 3 million masks were distributed to 290 U.S. dental schools and allied dental programs.

Dr. Stewart reported that in 2020 the Summer Health Professions Education Program (SHPEP) was delivered online successfully to more than 930 scholars. In December 2020, ADEA released a Request for Proposal (RFP) to develop, implement and analyze a dental education-wide climate assessment. ADEA plans to invite dental schools and allied dental education programs in the United States and Canada to participate in the study to gather baseline data across dental education that will assist institutions in developing strategies to create a more inclusive environment for all persons. Dr. Stewart shared that the Leadership Institute, designed to develop the most promising individuals at academic institutions to become future leaders in dental and higher education, took place virtually on. June 23-26, 2020. ADEA also offers the Leadership Essentials for Allied Dental Educators, a program that provides leadership training for dental assisting, dental hygiene, dental laboratory technology and dental therapy adjunct faculty. Dr. Stewart reported that dental school applications have increased when compared to the amount of applications received the same time last year. She concluded her presentation by sharing that as a result of the COVID-19 pandemic, ADEA eLearn experienced a rapid rise in traffic and engagement of members in presenting and participating in learning activities. From June 2020 to December 2020, ADEA eLearn hosted over 50 webinars and presentations.

Canadian Dental Association (CDA): Dr. Soucy shared that as a result of the COVID-19 pandemic, the Canadian Dental Association (CDA) was forced to completely reorganize its activities after February 2020 resulting in priorities being shelved and focus given to managing the impact of the resulting crisis on dentistry and oral health. Dr. Soucy also highlighted that because the CDA reacted quickly to the pandemic, it was able to control its revenue loss. Dr. Soucy reported that the CDA held two dental aptitude tests planned for 2020 by implementing the following changes: reorganizing the scoring of the Manual Dexterity Test, rewriting the registration software, and subcontracting test administration to dental schools. Dr. Soucy concluded his report by thanking the staff of the ADA Department of Testing Services (DTS) for the assistance provided with the changes that were implemented to ensure that the psychometric validity of the November 2020 Dental Aptitude Test (DAT) would not be impacted. The CDA looks forward to collaborating with DTS as it transitions its DAT to a computer-based format to provide Canadian Dental Schools with additional flexibility in delivering the tests.

Commission of Dental Accreditation (CODA): Dr. Tooks shared that the Commission's 2020 Annual Report is now available on CODA's website. She reported that currently there are 1,417 CODA-accredited education programs in approximately 800 institutions. During its October 13, 2020 Special Closed Meeting, the Commission reviewed interruption of education reports on predoctoral dental education programs, advanced dental education programs and allied dental education programs for the Class of 2020. The Commission also considered meeting reports of its 14 Review Committees related to the interruption of education for the Class of 2021. Dr. Tooks explained that having this review process in place enables the Commission to assess educational programs' continued compliance with educational standards during the COVID-19 pandemic. Recognizing the impact of COVID-19 on travel and on CODA-accredited dental and dental-related education programs, the Commission directed that any remaining site visits through 2020 be canceled and rescheduled in 2021. Dr. Tooks explained that according to the United States Department of Education (USDE), CODA and/or any accrediting agency may conduct site visits virtually at its discretion, but would be expected to visit the programs in-person at a later date.

Dr. Tooks highlighted that in 2019 and 2020, the Commission established the following three Ad Hoc Committees: Ad Hoc Committee on Review Committee and Commission Structure and Function, Ad Hoc Committee on Educational Activity Sites, and Ad Hoc Committee on Alternative Site Visit Methods. The Ad Hoc Committee on Alternative Site Visit Methods has been tasked to study virtual site visits, including the development of policies and procedures for the conduct of virtual visits with a report to the Commission at its Winter 2021 meeting. CODA continues to monitor USDE updates related to COVID-19 and has created a COVID-19 Update Page, a webpage that monitors the impact of COVID-19 on CODA-accredited programs and provides the list of Temporary Flexibility in Accreditation Standards and Interruption of Education Guidelines. Dr. Tooks reported that the USDE has extended all the flexibilities from Spring 2020 for the duration of the national emergency declaration and for 180 days following the date on which the COVID-19 national emergency declaration is rescinded.

A Council member asked Dr. Tooks to provide an example of how a dental education program would demonstrate compliance with accreditation standards during the COVID-19 pandemic. Dr. Tooks shared that a dental education program must assure CODA that it has and continues to assess the competency of its graduates. A Council member asked Dr. Tooks about the status of the secure web portal for program submissions. Dr. Tooks responded that the portal is anticipated to go live on February 1, 2021 and assured the Council that Commissioners and CODA staff will work with programs that have upcoming submissions. A Council member thanked Dr. Tooks and her entire team for being responsive to programs' inquiries and its efforts on moving forward during these challenging times. Dr. Tooks concluded her report by sharing that CODA will be conducting Validity and Reliability studies in 2021 for its predoctoral standards, oral & maxillofacial standards and anesthesiology standards.

Joint Commission on National Dental Examinations (JNCDE): Dr. David Waldschmidt shared an update on activities of the Joint Commission on National Dental Examinations (JCNDE). In 2020, the JCNDE successfully released the Dental Licensure Objective Structured Clinical Exam (DLOSCE) and the Integrated National Board Dental Examination (INBDE), introduced the short-form National Board Dental Hygiene Examination (NBDHE) and approved actions in support of these exams. In support of the strategic direction of the JCNDE, staff were directed to develop a business plan to understand potential interest in developing a Dental Hygiene Licensure Objective Structured Clinical Exam (DHLOSCE) and the anticipated requirements to develop, implement and provide ongoing support for such an examination. A second Dental Hygiene member was added to the JCNDE Board of Commissioners. Additionally, the Rules of the JCNDE and the Operational and Policy Manual of the JCNDE were amended to further reduce potential conflicts of interest related to Commissioner and test constructor service.

National Commission on Recognition of Dental Specialties and Certifying Boards (NCRDSCB): Ms. Baumann summarized that two new dental specialties, Oral Medicine and Orofacial Pain, were recognized by the National Commission in 2020. Oral Medicine is the eleventh recognized dental specialty and the second new specialty to be recognized since the formation of the National Commission in 2018. Orofacial Pain is the twelfth recognized dental specialty and the third new specialty to be recognized since the formation of the National Commission in 2018. During its March 2020 meeting, the National Commission determined that the American Dental Board of Anesthesiology application for recognition as the national certifying board for Dental Anesthesiology met each of the *Requirements for Recognition of a Dental Specialty National Certifying Board*. Ms. Baumann also shared that the American Dental Board of Oral Medicine's application was out for public comment: comments were due to the by January 16, 2021. The application will be reviewed by the National Commission at its Spring 2021 meeting which has been postponed from March to April 26-27, 2021.

Dr. Baumann concluded her report by sharing that during the Spring 2021 meeting, the National Commission will consider the ten-year periodic review of specialty education and practice which was conducted in 2020 as well as the annual reports submitted by the dental specialty certifying boards.

Commission on Continuing Education Provider Recognition (CCEPR): Ms. Mary Borysewicz provided an update on the Commission on Continuing Education Provider Recognition (CCEPR). At its October 1, 2020 meeting, the Commission approved revisions to the CERP Eligibility Criteria and approved a CERP Business Review Process. This optional screening process is designed to assist the provider and CCEPR determine whether the provider has a commercial interest. Additionally, the chair and vice-chair were elected for the 2020-2021 term. As of November 1, 2020, 492 CE providers were ADA CERP recognized, including 14 providers approved through Joint Accreditation for Interprofessional Continuing Education.

Senior Vice President, Education/Professional Affairs: Dr. Anthony Ziebert reported on activities within the ADA Division of Education and Professional Affairs. Dr. Ziebert informed the Council that the Education division met all but one of its goals for 2020 despite the disruption and extra work caused by the pandemic. He thanked the whole division, specifically the Library and Archives department team members and Mary Ellen Murphy for providing outstanding support to ADA members by collecting and disseminating information and data on COVID-19 to the public and Association.

The DLOSCE launched a year early in response to the need for non-patient-based examination options for new dental school graduates. Based on the first two administrations of the DLOSCE psychometricians conducted a thorough analysis of the exam and determined there is evidence that the DLOSCE is valid and reliable for determining the competency of the beginning dentist. The testing windows for the DLOSCE in 2021 have been scheduled. He reported that six states (Alaska, Colorado, Indiana, Iowa, Oregon and Washington) were accepting the DLOSCE as a partial or full indication of clinical competency.

Dr. Ziebert explained the transition to virtual test construction meetings has been seamless and resulted in significant decreased travel expenses. He continued to praise the work of the Commissions, CODA, in particular, for maintaining operations despite the US Department of Education's delayed guidance for accrediting bodies at the offset of the pandemic and being understaffed.

As of December 2020, the preliminary financial reports indicate that the division's revenue would meet between 85-90% of the budgeted expenses and revenue. Final numbers will be available in mid-February. Based on the events of 2020, the ADA Financial Department is predicting more revenue in 2021, based on the success of the Integrated National Board Dental Examination and the prediction that additional states will accept the DLOSCE.

American Student Dental Association: Ms. Shapiro reported that during the 2019-2020 membership year, ASDA had a total of 23,079 members and 66 chapters. Ms. Shapiro shared that as a result of the COVID-19 pandemic and safety concerns for staff and members, face-to-face meetings were replaced with virtual meetings. Accordingly, ASDA held its virtual Leadership Conference on November 13-15, 2020 and more than 770 students from 64 dental schools joined the first-ever virtual meeting. Upcoming national initiatives include the Week of Service taking place January 25-31, 2021 and the Board of Trustees' review of applications to appoint ASDA's 2021-2022 national leaders. The virtual Board of Trustees meeting will be held on January 23-24, 2021 and its first-ever virtual Annual Session will be held on February 19-21, 2021. The virtual Annual Session will focus on association governance

and policy. Ms. Shapiro concluded her report by noting that ASDA's and ADA's advocacy efforts have influenced licensure reform in several states.

Committee Reports:

Dental Education Committee: Dr. Steven Lepowsky presented the Committee's comments and recommendations to the Council. The following summarizes the agenda items discussed and the Council's actions.

Update on Activities of the Commission on Dental Accreditation (CODA): This agenda item was removed from the consent calendar. The discussion occurred during Dr. Took's presentation to the Council and is reported elsewhere in these minutes.

2021 CDEL Review of ADA Policies: The Council was reminded of the Association's protocol requiring agencies to review assigned Association policies every five years. The intent of the review is to maintain only those policies that have 1) relevance, 2) continued need, 3) consistency with other Association policies, and 4) appropriate language and terminology. This year, the ADA policies related to dental accreditation and dental education are scheduled for review. Accordingly, the Council considered the following policies and agreed with the Dental Education Committee's recommendation, to retain them as written. Full text of each policy is presented in Appendix 1.

- *State Board and Commission on Dental Accreditation Roles in Candidate Evaluation for Licensure*
- *Sponsorship of Dental Accreditation Programs*
- *Single Accreditation Program*
- *Consultation and Evaluation of International Dental Schools*
- *Dental Degrees*
- *Support of Dental Education Programs*
- *Assistance to Dental Schools Upon Closure*
- *Support for the Continued Existence of Private and Public Dental Schools in the United States*
- *Participation in Dental Outreach Programs*
- *Participation in International Higher Education Collaborative Networks*

Action: The Council directed that the policy statements noted in Appendix 1 be retained as written and that this be reported to the 2021 House of Delegates.

The Council also reviewed the *Continuing Competency* definition, and agreed with the Dental Education Committee that an amendment should be considered to strengthen the definition and reflect language consistent with Standard 5-3 of the CODA Accreditation Standards for Dental Education Programs which states:

> "The dental school must conduct a formal system of continuous quality improvement for the patient care program that demonstrates evidence of:
>
> c. an ongoing review of a representative sample of patients and patient records to assess the appropriateness, necessity and quality of the care provided;"

Action: The Council directed that proposed amendment to the *Continuing Competency* definition be transmitted to the 2021 House of Delegates for adoption (additions underlined; deletions ~~stricken~~)

Continuing Competency: The continuance of the ~~appropriate knowledge and skills~~ appropriateness, necessity and quality of the care provided by the dentist in order to maintain and improve the oral health care of his or her patients in accordance with the ethical principles of dentistry.

Consideration of Resolution 100H-2020 Special Needs Dentistry: The Council noted that the 2020 ADA House of Delegates adopted Resolution 100H-2020 Special Needs Dentistry, calling for the Council to explore the feasibility of requesting the development of an accreditation process and accreditation standards for advanced education programs in special needs dentistry and to address actionable strategies to strengthen training in this area at the predoctoral, advanced dental and continuing education levels. The Council considered a survey previously reviewed by the Dental Education Committee and noted the communities of interest proposed to receive the survey.

Action: The Council directed the Dental Education Committee to conduct the survey of the appropriate communities of interest to gather data on the current state of special needs dentistry education and report its findings for consideration at the June Council meeting.

The Council also reviewed and supported additional suggested actions to address Resolution 100H-2020.

Action: The Council directed the Dental Education Committee to take the following measures to address actionable strategies for Resolution 100H-2020 and report its findings for consideration at the June Council meeting:

- In regard to strategies for enhancing and expanding pre-doctoral training, consider the results of the survey, review the current Accreditation Standards for Dental Education Programs as they relate to special needs dentistry, and consider the scope and depth of didactic and clinical instruction provided to students in treating special needs patients.

- In regard to strategies for developing and promoting continuing education programs for existing practitioners, consider the survey results, conduct an environmental scan of current CE offerings on this topic and determine whether additional CE activities should be recommended for development, including financial implications.

- In regard to investigating advanced educational opportunities, review the current accreditation standards for advanced dental education programs in the relevant disciplines as they relate to special needs dentistry and determine whether the standards should be strengthened and/or the development of fellowship programs should be encouraged.

Licensure Committee: Dr. David Nielson presented the Committee's comments and recommendations to the Council. The following summarizes the agenda items discussed and the Council's actions.

Update on Interstate Licensure Compacts: Dr. Nielson reminded the Council members that the Council on State Governments (CSG) conducted a webinar in November 2020 regarding the development of licensure compacts. The Department of Defense is providing funding to the CSG to assist professionals in the development of new interstate compacts for occupational licensure portability. The scope of assistance includes drafting the model compact legislation, developing a legislative resource kit and convening a national meeting of state policymakers to introduce the compact. The CDEL Chair, several Council members and ADA staff attended the webinar and discussed their impressions during the Licensure Committee meeting. The Committee noted the application deadline of February 1, 2021 and requested staff to draft a grant application for consideration at the January 2021 Council meeting.

1. At this meeting, the Council reviewed and discussed the draft grant application, focusing specifically on the organizations the ADA identified as additional potential partners with whom to work with on compact development. Additionally, the Council discussed the financial implications related to this effort including the rationale for the request of financial support from CSG for the profession to develop compact legislation and the financial resources that would be necessary to sustain a compact once active. At the conclusion of the discussion the Council agreed with the Licensure Committee's recommendation to submit the Application for Assistance to Develop New Interstate Compacts for Occupational Licensure for Dentistry to the Council of State Governments National Center for Interstate Compacts after contacting the potential partners listed on the application to confirm their approval and agreement to be listed in the application.

   Action: The Council requested that other national dental organizations noted in the draft Application for Assistance to Develop New Interstate Compacts for Occupational Licensure be invited to support the application and approved the submission of the Application to the Council of State Governments National Center for Interstate Compacts with the caveat that mention of any organization declining to support the application be deleted from the Application prior to its submission.

Update on ADA Support for Military Spouse Bill and VA Interim Rule: The Military Spouse Relief Act of 2020 would grant military spouses with valid professional licenses reciprocity in the state in which their spouse is currently serving on military orders. It was noted that the ADA sent a letter of support to the sponsor, Utah Senator Mike Lee, in November 2020. The interim rule on Authority of VA Professionals to Practice Health Care published in the Federal Register and effective November 12, 2020 confirms the VA's current practice of allowing VA health care professionals to deliver services in a State other than the health care professional's State of licensure, registration or certification. The ADA also submitted a letter of support of the interim rule in early December 2020.

Anesthesiology Committee: Dr. Joan Otomo-Corgel presented the Committee's comments and recommendations to the Council. The following summarizes the agenda items discussed and the Council's actions.

Consideration of Comments on Draft Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students: Dr. Otomo-Corgel noted that after finalizing the new *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students (Pediatric Teaching Guidelines)*, the Anesthesiology Committee recommended that the document be transmitted to the Council for consideration and determination of next steps for disseminating the *Pediatric Teaching Guidelines*. Prior to the Council meeting, the chair of the Council sought advice from ADA leadership and the legal department confirming that the new *Pediatric Teaching Guidelines* may remain

under the purview of the Council and the experts on the Anesthesiology Committee so that the document may be updated as necessary. The Council discussed the matter, approved the *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students* and requested staff to disseminate the document to the appropriate communities of interest.

> **Action:** The Council approved the *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students* (Appendix 2) and directed that the document be disseminated to the appropriate communities of interest.

Consideration of Sedation and Anesthesia Policies Assigned to the Council on Dental Education and Licensure for Review in 2021: According to Association protocol, agencies are to review assigned Association policies at least every 5 years. In 2021, the Council is responsible for reviewing the *Guidelines for the Use of Sedation and General Anesthesia by Dentists*, *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* and the *ADA Policy Statement: The Use of Sedation and General Anesthesia by Dentists*. However, it was determined that review of these policies will be postponed until 2022, pending development of new evidence-based clinical guidelines on sedation and general anesthesia by the ADA Council on Scientific Affairs.

State Statutes/Regulations that Reference ADA Teaching Guidelines and AAPD Guidelines: The Council reviewed a chart highlighting the states that cite in their statutes and regulations the *2016 ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* that focus on adult patients, and the *AAP/AAPD Guidelines for Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures* that focus on pediatric patients. The Council discussed this information in an effort to understand the frequency with which these guidelines are cited by state dental boards and where in the statutes and regulations these citations are located. This survey will provide the foundation for development of a new visualization map dedicated to anesthesiology licensure planned for the Dental Licensure Dashboard on ADA.org in 2021.

Continuing Education Committee: The Continuing Education Committee Summary Report was on the consent calendar, but Dr. James Nickman reminded the Council of the Committee's charge, shared an overview of the composition of the Committee and highlighted the ADA's response to COVID-19 by transitioning to an online platform to provide CE and develop content to address the many challenges presented by COVID-19.

Emerging Issues, Trends and Miscellaneous Affairs:

ADA Executive Director's Update: Dr. Kathleen O'Loughlin reviewed *Common Ground 2025* with the Council. She explained that Common Ground continues a disciplined approach to deliver a balanced budget, manage business via a cross-divisional Agile methodology, invest in client services for states and locals and commit to innovation. She reviewed the four goals of Common Ground 2025 (Membership, Finance, Organizational and Public) and discussed 2021 operating plan alignment including objectives that support each of the goals. She urged the Council to consider how its defined responsibilities, programs and projects align with Common Ground 2025 and the objectives set forth for 2021. Dr. O'Loughlin also discussed the impact COVID-19 has had on the Association's operations and reviewed the ADA's COVID-19 vaccine strategy.

Unofficial Report of Actions of the 2020 House of Delegates: The Council received the Unofficial Actions of the 2020 ADA House of Delegates and noted the following which pertain to the business and responsibilities of the Council.

Resolution 1H-2020: Review of ADA Policies: Dentistry and Dentistry as an Independent Profession called for combining the two policies into one declarative positive statement that defines the independent profession of dentistry and notes dentistry's commitment to professionalism and interprofessional health. The two policies were combined by amending the policy *Dentistry* and rescinding the policy *Dentistry as an Independent Profession*. The resolution was presented by the Council.

Resolution 16H-2020: Comprehensive ADA Policy Statement on Teledentistry called for editorial and clarifying revisions to better reflect the position of the Association. CDEL provided comment to the Council on Dental Practice during the initial review process prior to presentation to the House of Delegates. The Council supported the amendment to the policy.

Resolution 100H-2020: Special Needs Dentistry called for pursuing a feasibility study for developing an accreditation process and standards for advanced education programs in special care dentistry by the Commission on Dental Accreditation (CODA). The resolution also called for the Council to address actionable strategies to enhance and expand pre-doctoral training; to develop and promote continuing education programs for existing practitioners; and to investigate advanced educational opportunities. The resolution was supported by the Council. As noted elsewhere in these Minutes, Resolution 100H-2020 was referred to the Dental Education Committee for study and report to the June 2021 Council meeting.

Resolution: 76-2020 Elder Care Strategies on Increased Preparedness of Educational Institutions was not adopted. It was referred to the appropriate ADA agency to be presented at the 2021 House of Delegates. The Council noted that the resolution calls for increased preparedness of educational institutions to train dentists and specialists in elder care.

> **Action**: The Council referred consideration of Resolution 76-2020 to the Dental Education Committee for study and requested a report of its findings and recommendations for consideration at the Council's June meeting.

Strategic Plan 2020-2025: Council Priorities in 2021: The Council discussed and confirmed its priorities and projects for 2021 in light of the Strategic Plan Goals and the Council's defined responsibilities:

- On behalf of the ADA, monitor and comment on matters of the Commission on Dental Accreditation, Commission for Continuing Education Provider Recognition, and the National Commission on Recognition of Dental Specialties and Certifying Boards. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Continue to support the ADA and its involvement with the Coalition for Modernizing Dental Licensure. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- On behalf of the ADA, further explore the implementation of licensure compacts and advocate for changes to state dental practice acts, rules and regulations regarding licensure, as requested. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Continue to support the implementation and promotion of the Dental Licensure Objective Structured Clinical Examination (DLOSCE). [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Provide oversight to the Department of Testing Services regarding the administration of the Dental Admission Test (DAT) and Advanced Dental Admission Test (ADAT). [PUBLIC GOAL AND FINANCIAL GOAL]

- Provide oversight to the Department of Testing Services regarding the development of an admission test for dental hygiene programs. [PUBLIC GOAL AND FINANCIAL GOAL]

- Finalize and disseminate *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students*. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Per the 5-year review cycle, consider and possibly recommend revision to the education and accreditation policies assigned to the Council for review. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Address Resolution 100H-2020 and Resolution 76-2020 and report findings to the 2021 House of Delegates. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

- Consider the annual reports of the Dental Assisting National Board and the National Board for Certification in Dental Laboratory Technology. [ORGANIZATIONAL GOAL AND PUBLIC GOAL]

Action: The Council approved its priorities and projects for 2021 as noted above.

Greetings from ADA President: Dr. Klemmedson expressed his appreciation for the invitation to attend the Council meeting and acknowledged and thanked the Council for its efforts, especially during these challenging times.

Coalition for Modernizing Dental Licensure: Dr. Strotman provided an update on the activities of the Coalition for Modernizing Dental Licensure. In 2020, the Coalition Executive Committee met six times. In 2020, 29 organizations and agencies joined the Coalition, advocacy efforts continued virtually through presentations to various schools and organizations, and the Coalition hosted a booth in the ADA FDC Virtual Connect Conference exhibit hall. Spring 2020 was spent working collaboratively with Coalition member associations and organizations to assist in efforts to get the licensure candidates from the class of 2020 licensed. Later in the year, the Coalition sent a letter in support of the Military Spouse Licensing Relief Act of 2020. Looking forward, the Executive Committee is scheduled to meet on February 3, 2021 to confirm a strategic plan; staff continue to monitor and track licensure changes and support Coalition members with requests for assistance. Coalition leadership will make a presentation at the ADEA Annual Session and Exhibition on March 15, 2021.

Chair and Vice-chair Election for 2021-2022: Dr. Jacqueline Plemons (ADA appointee), will complete her term as chair at the close of the 2021 ADA House of Delegates meeting on October 13, 2021. Dr. Donna Thomas-Moses (ADA appointee) also will complete her one-year term as vice-chair of the Council at that time. The Council was reminded that at its June 2021 meeting, Council members will elect a chair and vice chair for the 2021-2022 year.

Adjournment: 3:10 PM, Friday, January 22, 2021

Appendices

Appendix 1: Policies to be Retained as Written

Appendix 2: ADA CDEL *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students*

Policies Recommended to Retain as Written

State Board and Commission on Dental Accreditation Roles in Candidate Evaluation for Licensure (*Trans.*1992:697; 2003:367)

Resolved, that the Association urge state boards of dentistry to continue to support the role of the Commission on Dental Accreditation as the agency responsible for the evaluation of dental education programs.

Sponsorship of Dental Accreditation Programs (*Trans*.1972:697; 2003:367; 2016:298)

Resolved, that the American Dental Association supports the concept of nongovernmental, voluntary accreditation, and be it further
Resolved, that the American Dental Association opposes the development of federal or state dental accreditation programs in the United States.

Single Accreditation Program (*Trans*.1996:696; 2010:577)

Resolved, that the American Dental Association support a single accreditation program for dental and dentally-related educational programs.

Consultation and Evaluation of International Dental Schools (*Trans*.2005:298)

Resolved, that the ADA and its Board of Trustees support the Commission on Dental Accreditation's initiative to offer consultation and accreditation services to international dental schools.

Dental Degrees (*Trans*.1972:698; 2016:299)

Resolved, that the American Dental Association supports the principle that degree determination is the prerogative of the individual educational institution.

Support of Dental Education Programs (*Trans*.1972:697; 2016:299)

Resolved, that the American Dental Association encourages members of the profession to support vigorously, through direct financial contributions and political activity, dental education programs which have been accredited by the Commission on Dental Accreditation.

Assistance to Dental Schools Upon Closure (*Trans*.1992:610)

Resolved, that in the event an accredited dental school announces the intention to cease operations, the ADA work closely with the American Dental Education Association to assist the affected dental students in locating positions in other accredited dental schools.

Support for the Continued Existence of Private and Public Dental Schools in the United States (*Trans*.1989:522; 2016:299)

Resolved, that the American Dental Association strongly supports the continued existence of the private and public dental schools in the United States and the need for dental education to remain an integral part of the university community and an inviolate part of the higher education system.

Participation in Dental Outreach Programs (*Trans*.2010:587; 2016:299)

Resolved, students in U.S. dental schools and pre-dental programs who participate in a dental outreach program (e.g., international service trips, domestic service trips, volunteerism in underserved areas, etc.) are strongly encouraged:

- To adhere to the ASDA Student Code of Ethics and the ADA *Principles of Ethics and Code of Professional Conduct;*
- To be directly supervised by dentists licensed to practice or teach in the United States;
- To perform only procedures for which the volunteer has received proper education and training.

Participation in International Higher Education Collaborative Networks (*Trans*.2003:368)

Resolved, that the Association continue and the Commission on Dental Accreditation be urged to continue to participate in international higher education collaborative networks, to ensure that the Association and the Commission are positioned to collaborate, assist, participate, and provide consultation on international standards for dental education and clinical practice.

Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students

ADA Council on Dental Education and Licensure

Approved January 21, 2021

Note: The Council on Dental Education and Licensure is responsible for maintaining this document's currency. Copies of cited references may be obtained by contacting the publishers or ADA Library and Archives.

I. Introduction

The administration of local anesthesia, sedation and general anesthesia is an integral part of the practice of dentistry. The American Dental Association (ADA) is committed to the safe and effective use of these modalities by appropriately educated and trained dentists.

Anxiety and pain control can be defined as the application of various physical, pharmacological, and psychological modalities for the prevention and treatment of preoperative, operative and postoperative patient anxiety and pain to allow dental treatment to occur in a safe and effective manner. It involves all disciplines of dentistry and, as such, is one of the most important aspects of dental education. Pediatric patients are particularly susceptible to pain and anxiety associated with dental procedures and because of limited cognitive, psychological, and emotional coping strategies, completion of medically necessary dental care may be difficult or impossible.[1-3]

These *Guidelines* are intended to provide direction for the teaching of initial competency in pediatric pain control and minimal and moderate sedation to dentists and can be applied at all levels of dental education from predoctoral education through postgraduate residency training and continuing education. The ADA recognizes the Guidelines for the Use of Sedation and General Anesthesia by Dentists, which describe best practices for clinical administration of sedation and anesthesia for adult patients.[4] For pediatric patients undergoing minimal or moderate sedation, the ADA supports the use of the American Academy of Pediatrics/American Academy of Pediatric Dentistry (AAP/AAPD) Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures.[5]

The definition of a pediatric patient as it relates to pain control and sedation, is dependent on age, size, circumstance and intent. Various regulatory agencies have identified a threshold of ages 10 – 13 years old for pediatric patients in areas such as medication dosage guides, research, training parameters and privacy concerns. In regard to sedation in dentistry, sedation of pediatric patients is different from that of adults, and poses a higher risk. The highest risk exists in providing sedation for pediatric patients younger than 6 years of age.[5] Additional consideration should be given to those for whom development is not defined by chronological age, including individuals with special healthcare needs which interfere with their ability to undergo dental treatment. For the purposes of these teaching guidelines for minimal and moderate sedation, however, pediatric will be defined as prepubescent.

The predoctoral curriculum in anxiety and pain control in pediatric patients should include training in both non-pharmacological and pharmacological management techniques. Non-pharmacological modalities place emphasis on the interactions between the dentist, staff, the patient, and the parent. Goals of pediatric behavior guidance include establishing communication, alleviating fear and anxiety, delivering quality dental care, building a relationship of trust, and promoting a positive attitude within the pediatric patient towards oral health care. While the focus of these guidelines relates to pharmacological modalities, instruction in this area should also include non-pharmacologic management/behavioral guidance.

Dental students should acquire the knowledge and skills necessary to administer local anesthesia and nitrous oxide inhalation sedation effectively and safely to adult and pediatric patients, in order to alleviate anxiety and control pain, while minimizing adverse physiological or psychological side effects. The goals, prerequisites, didactic content, clinical experiences, faculty, and facilities described herein are intended to guide dental schools in planning predoctoral curricula, taught by faculty trained and experienced in all pharmacological modalities to engender familiarity with the indications for different therapies including analgesic medications, local anesthesia, sedation and general anesthesia. Above all, the importance of understanding, recognizing and managing emergencies related to local anesthesia and sedation administration cannot be overstated. While dental students must obtain certification in Basic Life Support for the Healthcare Provider approved by the American Heart Association or the American Red Cross, emphasis should be placed on the need to maintain emergency preparedness in future practice as well, with regular continuing education as well as simulation practice.

Local anesthesia has been the foundation of pain control in dentistry. The use of local anesthesia in dentistry has a long record of safety; however, dentists must remain cognizant of the maximum recommended doses, as high doses of local anesthetics may lead to significant cardiovascular and central nervous system depression. Less commonly appreciated is that local anesthetic toxicity may still manifest at lower than published maximum recommended doses, and recognition and swift treatment of both early and late signs of local anesthetic overdose are key to avoiding patient harm. Predoctoral students therefore must not only routinely calculate appropriate local anesthetic doses for pediatric patients, but also be trained in the management of local anesthetic toxicity. The addition of sedative medications with local anesthesia administration carries physiologic and pharmacological implications, including increased sedative effects. Recognizing the potential for enhanced sedative effects when the highest recommended doses of local anesthetic drugs are used in combination with other sedatives is especially critical in pediatric patients.[5]

Training in moderate sedation for pediatric patients requires a level of knowledge and clinical experience beyond the scope of most predoctoral education programs. While training in minimal sedation may be more easily incorporated into the dental school curriculum, instruction in moderate sedation requires specific teaching requirements described herein that include additional didactic education hours and clinical case experiences that extend beyond

most predoctoral curricula. These teaching requirements may be specifically addressed in either an advanced dental education program or continuing education competency courses. Whenever local anesthesia and/or sedation is employed, treatment areas must be properly equipped to manage emergencies, including appropriate physiologic monitoring equipment, a positive pressure oxygen delivery system, and emergency drugs and equipment suitable for the rescue of the patient being treated. Descriptions of recommended equipment and medications that may be necessary for emergency management in pediatric sedation are included as Appendices 3 and 4 in the AAP/AAPD Guidelines. [5]

The knowledge, skill and clinical experience required for the safe administration of deep sedation and/or general anesthesia are beyond the scope of predoctoral and continuing education programs. Advanced dental education programs that teach deep sedation and/or general anesthesia to competency have specific teaching requirements described in the Commission on Dental Accreditation standards for those advanced dental programs and represent the educational and clinical requirements for teaching deep sedation and/or general anesthesia in dentistry.

These teaching guidelines reinforce the understanding that the level of sedation is independent of the route of administration. Minimal, moderate, deep sedation and general anesthesia may be achieved via any route of administration, and therefore these guidelines do not delineate level of sedation by route of administration. Likewise, because sedation and general anesthesia are a continuum, it is imperative that training for any level of sedation emphasizes the possibility of a patient progressing to a level of sedation one level deeper than that intended, regardless of the route of administration selected. Hence the need for recognition and rescue from unintended deeper levels of sedation is repeated throughout these teaching guidelines.

The American Dental Association urges dentists to adhere to state continuing education requirements and participate regularly in update courses in these modalities in order to remain current in the expansion of knowledge as well as maintaining competency. Ultimately, the objective of educating dentists to utilize pain control, and minimal and moderate sedation is to enhance their ability to educate and provide treatment for the oral health care of any patient, in a safe, effective and accessible manner.

II. Definitions

Methods of Anxiety and Pain Control

analgesia – the diminution or elimination of pain.

local anesthesia - the elimination of sensation, especially pain, in one part of the body by the topical application or regional injection of a drug.

Note: Dentists must remain cognizant of the maximum recommended doses, as high doses of local anesthetics may lead to significant cardiovascular and central nervous system depression. Local anesthetic toxicity may still manifest at lower doses, and recognition and swift treatment of both early and late signs of local anesthetic overdose are key skills to preventing patient harm. Recognizing that this is especially critical in pediatric patients, there may be enhanced sedative effects when the highest recommended doses of local anesthetic drugs are used in combination with other sedatives.[5]

minimal sedation (previously known as anxiolysis) - a minimally depressed level of consciousness, produced by a pharmacological method that retains the patient's ability to independently and continuously maintain an airway and respond *normally* to tactile stimulation and verbal command. Although cognitive function and coordination may be modestly impaired, ventilatory and cardiovascular functions are unaffected.[6]

The following definitions apply to administration of pediatric minimal sedation:

In accord with the definition of minimal sedation, the drug and/or technique used should carry a margin of safety wide enough never to render unintended loss of consciousness. The use of the maximum recommended dose (MRD) to guide dosing for minimal sedation is intended to create this margin of safety.

maximum recommended dose (MRD) – maximum FDA-recommended dose of a drug, as printed in FDA-approved labeling for pediatric use in the unmonitored home.

dosing for minimal sedation via the enteral route – minimal sedation for pediatric patients may be achieved by the administration of a single dose of a single oral agent that is FDA-approved for pediatric use, not to exceed the maximum recommended dose (MRD).

The oral sedative agent must be administered by the dentist in the office setting. Redosing during a single treatment day with additional oral sedative medication is not recommended.

Minimal sedation for those beyond prepubescence may be achieved in accordance with adult training guidelines. In contrast to adult training guidelines for minimal sedation, which allow for divided doses (not to exceed the MRD) to achieve the desired clinical effect, divided doses in pediatric enteral minimal sedation are not recommended.

Nitrous oxide-oxygen inhalation may be co-administered. If nitrous oxide-oxygen inhalation is combined with a sedative oral medication (e.g., benzodiazepines, antihistamines, opioids), or if nitrous oxide-oxygen is used in concentrations >50%, the likelihood of entering a state of moderate or deep sedation increases, in which case the guidelines for moderate sedation or deep sedation will apply.[6]

The administration of one of the following during the single appointment will be considered moderate sedation, and the moderate sedation guidelines will apply.

a. Two or more oral sedative medications
b. One oral sedative medication exceeding the MRD
c. Pharmacy-compounded sedative medication
d. Parenterally administered sedative medication

moderate sedation - a drug-induced depression of consciousness during which patients respond *purposefully* to verbal commands, either alone or accompanied by light tactile stimulation. Bidirectional communication between patient and provider is maintained. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.[6]

In accord with this particular definition, the drugs and/or techniques used should carry a margin of safety wide enough to render unintended loss of consciousness unlikely. Repeated dosing of an agent before the effects of previous dosing can be fully appreciated may result in a greater alteration of the state of consciousness than is the intent of the dentist and is inappropriate for pediatric patients. A patient whose only response is reflex withdrawal from a painful stimulus is not considered to be in a state of moderate sedation.

Oral sedative agent(s) must be administered by the dentist in the office setting.

Moderate sedation for those beyond prepubescence may be achieved in accordance with adult training guidelines. In contrast to adult training guidelines for moderate sedation, repeated dosing or readministration is not recommended in pediatric moderate sedation unless intravenous access is in place.

Nitrous oxide-oxygen inhalation may be co-administered. If nitrous oxide-oxygen inhalation is combined with another sedative medication (e.g., benzodiazepines, antihistamines, opioids), or if nitrous oxide-oxygen is used in concentrations >50%, the likelihood of entering a state of deep sedation increases, in which case the guidelines for deep sedation will apply.[6]

The following definition applies to administration of moderate and deeper levels of sedation:

titration – administration of incremental doses of a medication via the intravenous or inhalation route until a desired effect is reached. Knowledge of the time of onset, peak response and duration of action of each drug is essential to avoid unintended levels of sedation. Since peak onset of oral (enteral) sedatives is less predictable, titration of oral sedatives cannot be performed. While peak onset of intranasal, intramuscular or submucosal administration is more predictable, it can still be difficult to determine when the previous dose has taken full effect to allow for predictable titration.

deep sedation - 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.[6]

general anesthesia – 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.[6]

Because sedation and general anesthesia are 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. [6]

For all levels of sedation, the qualified dentist must have the training, airway skills, drugs, monitors, and emergency equipment to identify and manage such an occurrence until either assistance arrives (emergency medical service) or the patient returns to the intended level of sedation without airway or cardiovascular complications.

Routes of Administration

enteral - any technique of administration in which the agent is absorbed through the gastrointestinal (GI) tract or oral mucosa [i.e., oral, rectal].

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.

parenteral - a technique of administration in which the drug bypasses the gastrointestinal (GI) tract [i.e., intramuscular (IM), intravenous (IV), intranasal (IN), submucosal (SM), subcutaneous (SC), intraosseous (IO)].

transdermal - a technique of administration in which the drug is administered by patch or iontophoresis through skin.

transmucosal – a technique of administration in which the drug is administered across mucosa such as intranasal, buccal, sublingual, or rectal.

Terms

continual - repeated regularly and frequently in a steady succession.

continuous - prolonged without any interruption at any time.

immediately available – on site in the facility and available for immediate use.

may - indicates freedom or liberty to follow a reasonable alternative.

must/shall - indicates an imperative need and/or duty; an essential or indispensable item; mandatory.

pediatric –For the purposes of these guidelines for minimal and moderate sedation, pediatric age will be defined as prepubescent.

pediatric dentistry - An age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and patients through adolescence, including those with special health care needs.[7]

qualified dentist – a dentist providing sedation and anesthesia in compliance with their state rules and/or regulations.

rescue - 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. [6]

should -indicates the recommended manner to obtain the standard; highly desirable.

time-oriented anesthesia record - documentation at appropriate time intervals of drugs, doses, behavioral and physiologic data obtained during patient monitoring.

Levels of Knowledge

familiarity - a simplified knowledge for the purpose of orientation and recognition of general principles.

in-depth - a thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding (highest level of knowledge).

Levels of Skill

competent – displaying special skill or knowledge derived from training experience.

exposed - the level of skill attained by observation of or participation in a particular activity.

Patient Physical Status Classification[8]

Classification	Definition	Examples, including but not limited to:
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30 < BMI < 40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; One or more moderate to severe diseases. Examples include (but not limited to): poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA < 60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): recent (< 3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are	

	being removed for donor purposes	
*The addition of "E" denotes Emergency surgery: (An emergency is defined as existing when delay in treatment of the patient would lead to a significant increase in the threat to life or body part)		

Pediatric Examples:

ASA II - ADHD, asthma, well controlled seizure disorders, stable hypothyroidism, well controlled DM, GERD.

ASA III - Poorly controlled DM or HTN, morbid obesity, poorly controlled seizure disorders, cystic fibrosis, severe asthma, airway anomalies (e.g., Treacher Collins syndrome, Goldenhar syndrome).

ASA IV - Unrepaired complex congenital cardiac conditions, active oncology treatment.

2020 Practice Guidelines for Preoperative Fasting[9]

Ingested Material	Minimum Fasting Period
Clear liquids	2 hours
Breast milk	4 hours
Infant formula	6 hours
Nonhuman milk	6 hours
Light meal	6 hours
Fatty meal	8 hours

Pediatric Examples:

Clear liquids – water, apple juice

Nonhuman milk – cow, goat, fortified human milk

Light meal – dry toast, bowl of cereal

Fatty meal – eggs and bacon, pizza, macaroni and cheese

Education Courses

Education may be offered at different levels (competency, update, survey courses and advanced education programs). A description of these different levels follows:

1. **Competency Courses** are designed to meet the needs of dentists who wish to become competent in the safe and effective administration of local anesthesia, minimal and moderate sedation. They consist of lectures, demonstrations and sufficient clinical

participation to assure the faculty that the dentist understands the procedures taught and can safely and effectively apply them. Faculty must assess and document the dentist's competency upon successful completion of such training. To maintain competency, periodic update courses must be completed.

2. **Update Courses** are designed for persons with previous training. They are intended to provide a review of the subject and an introduction to recent advances in the field. They should be designed didactically and clinically to meet the specific needs of the participants. Participants must have completed previous competency training (equivalent, at a minimum, to the competency course described in this document) and have current experience to be eligible for enrollment in an update course.

3. **Survey Courses** are designed to provide general information about subjects related to pain control and sedation. Such courses should be didactic and not clinical in nature, since they are not intended to develop clinical competency.

4. **Advanced Education Courses** are a component of an advanced dental education program, accredited by the Commission on Dental Accreditation in accord with the *Accreditation Standards* for advanced dental education programs. These courses are designed to prepare the graduate dentist or postdoctoral student in the most comprehensive manner to be competent in the safe and effective administration of minimal, moderate and deep sedation and general anesthesia.

III. Teaching Pediatric Pain Control

These *Guidelines* present a basic overview of the recommendations for teaching pediatric pain control.

A. General Objectives: Upon completion of a predoctoral curriculum in pediatric pain control the dentist must:

1. Have an in-depth knowledge of those aspects of pediatric anatomy, physiology, pharmacology and psychology involved in the use of various sedation and pain control methods.

2. Be competent in evaluating the age, temperamental, psychological and physical status of the patient, as well as the magnitude of the operative procedure, including the use of age/developmental appropriate pain scales in order to select the proper regimen.

3. Be competent in monitoring vital functions.

4. Be competent in prevention, recognition and management of related complications; particularly airway complications.

5. Have in-depth knowledge of the appropriateness of and the indications for medical consultation or referral.

6. Be competent in the maintenance of proper records with accurate chart entries recording medical history, physical examination, vital signs, drugs administered and patient response.

B. Pain Control Curriculum Content:

1. Philosophy of anxiety, pain control, and pediatric behavior guidance, including the nature and purpose of pain
2. Review of physiologic and psychologic aspects of anxiety and pain
3. Review of pediatric airway anatomy and physiology
4. Physiologic monitoring
    a. Observation
        (1) Central nervous system
        (2) Respiratory system
            (a) Oxygenation
            (b) Ventilation
        (3) Cardiovascular system
    b. Monitoring equipment
5. Pharmacologic aspects of anxiety and pain control
    a. Routes of drug administration
    b. Sedatives, anxiolytics and antagonists
    c. Local anesthetics
    d. Analgesics and antagonists
    e. Adverse side effects
    f. Drug interactions
    g. Drug abuse
6. Control of preoperative and operative anxiety and pain
    a. Patient evaluation
        (1) Behavior and psychological status
        (2) ASA physical status
        (3) Type and extent of operative procedure

    b. Nonpharmacologic methods
        (1) Pediatric Behavior guidance strategies
            (a) Communicative strategies of patient management
            (b) Distraction
            (c) Positive reinforcement
            (d) Tell-show-do
            (e) Memory restructuring

(f) Systematic desensitization

c. Local anesthesia
(1) Review of related anatomy and physiology
(2) Pharmacology
(a) Focus on weight-based calculations for pediatric patients
(aa) Adjustments for overweight and obese patients
(b) Toxicity
(c) Selection of agents
(3) Techniques of administration
(a) Topical
(b) Infiltration (supraperiosteal)
(c) Nerve block – maxilla-to include:
(aa) Posterior superior alveolar
(bb) Infraorbital
(cc) Nasopalatine
(dd) Greater palatine
(ee) Maxillary (2nd division)
(ff) Other blocks
(d) Nerve block – mandible-to include:
(aa) Inferior alveolar-lingual
(bb) Mental-incisive
(cc) Buccal
(dd) Gow-Gates
(ee) Closed mouth
(e) Alternative injections-to include:
(aa) Periodontal ligament
(bb) Dental intraosseous

d. Prevention, recognition and management of complications and emergencies

C. Sequence of Pain Control Didactic and Clinical Instruction: Beyond the basic didactic instruction in local anesthesia, additional time should be provided for demonstrations and clinical practice of the injection techniques. The teaching of other methods of anxiety and pain control, such as the use of analgesics and enteral, inhalation and parenteral sedation, should be coordinated with a course in pharmacology. By this time the student also will have developed a better understanding of patient evaluation and the problems related to prior patient care. As part of this instruction, the student should be taught the techniques of venipuncture and physiologic monitoring. Time should be included for demonstration of minimal and moderate sedation techniques.

Following didactic instruction in minimal and moderate sedation, the student must receive sufficient clinical experience to demonstrate competency in those techniques in which the student is to be certified. It is understood that not all institutions may be able to provide

instruction to the level of clinical competence in pharmacologic sedation modalities to all students. The amount of clinical experience required to achieve competency will vary according to patient population (i.e., healthy vs medically complex), student ability, teaching methods and the anxiety and pain control modality taught.

Throughout both didactic and clinical instruction in anxiety and pain control, the importance of non-pharmacologic pediatric guidance throughout the sedation procedure should be stressed. Instruction should emphasize that the need for sedative techniques is related to the patient's age, level of anxiety, cooperation, medical condition and the planned procedures.

D. Faculty: Instruction must be provided by qualified faculty for whom pediatric sedation and pain control are areas of major proficiency, interest and concern.

E. Facilities: Competency courses must be presented in facilities appropriately prepared for pediatric patient care, with drugs and equipment immediately available for the management of emergencies.

IV. Teaching Administration of Pediatric Minimal Sedation

The faculty responsible for curriculum in pediatric minimal sedation techniques must be familiar with the ADA Policy Statement: *Guidelines for the Use of Sedation and General Anesthesia by Dentists*, the Commission on Dental Accreditation's *Accreditation Standards for Dental Education Programs*, and the AAP/AAPD *Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures*.

These various guidelines and standards present a basic overview of the recommendations for teaching pediatric minimal sedation. These include courses in nitrous oxide-oxygen inhalation sedation and minimal sedation, most likely administered via the enteral route in pediatric patients. Minimal sedation in pediatric patients may be achieved by the administration of a single dose of a drug, not to exceed the maximum recommended dose (MRD). The administration of more than one drug, one drug exceeding the MRD, or concomitant use of nitrous oxide with another drug or use at concentrations >50% during a single appointment may produce moderate or deep levels of sedation, wherein guidelines for those levels of sedation apply, as indicated by the patient's response.[6]

General Objectives: Upon completion of a competency course in pediatric minimal sedation, the dentist must be able to:

1. Describe the anatomy and physiology of the respiratory, cardiovascular and central nervous systems, as they relate to the above techniques and the unique anatomy and physiology of the child patient and the challenges that they present.

2. Describe the pharmacological effects of sedative medications.

3. Describe the methods of obtaining a medical history and conducting an appropriate physical examination.
4. Apply these methods clinically in order to obtain an accurate evaluation.
5. Use this information clinically for ASA classification risk assessment and pre-procedure fasting instructions.
6. Choose the most appropriate technique for the individual patient.
7. Use appropriate physiologic monitoring equipment.
8. Describe the physiologic responses that are consistent with pediatric minimal sedation, including retention of the patient's ability to independently and continuously maintain an airway and respond *normally* to tactile stimulation and verbal command, as well as maintain respiratory and cardiovascular stability.
9. Understand the sedation/general anesthesia continuum.
10. Demonstrate the ability to diagnose and treat emergencies related to the next deeper level of anesthesia than intended.

Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation

A. Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Course Objectives: In addition to the general objectives listed above, upon completion of a competency course in inhalation sedation techniques, the dentist must be able to:

1. Describe the basic components of inhalation sedation equipment.
2. Discuss the function of each of these components.
3. List and discuss the advantages and disadvantages of inhalation sedation.
4. List and discuss the indications and contraindications of inhalation sedation.
5. List the complications associated with inhalation sedation.
6. Discuss the prevention, recognition and management of these complications.
7. Administer inhalation sedation to pediatric patients in a clinical setting in a safe and effective manner.
8. Discuss the abuse potential, occupational hazards and other untoward effects of inhalation agents.
9. List and discuss failed pediatric inhalation sedation and alternative care.

B. Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Course Content:

1. Historical, philosophical and psychological aspects of anxiety and pain control.
2. Patient evaluation and selection through review of medical history taking, physical diagnosis and psychological considerations.
3. Definitions and descriptions of physiological and psychological aspects of anxiety and pain.
4. Description of the stages of drug-induced central nervous system depression through all levels of consciousness and unconsciousness, with special emphasis on the distinction between the conscious and the unconscious state.
5. Review of pediatric respiratory and circulatory physiology and related anatomy.
6. Pharmacology of agents used in inhalation sedation, including drug interactions and incompatibilities.
7. Indications and contraindications for use of inhalation sedation.
8. Review of dental procedures possible under inhalation sedation.
9. Patient monitoring using observation and monitoring equipment (e.g., pulse oximetry), with particular attention to vital signs and reflexes related to pharmacology of nitrous oxide.
10. Importance of maintaining proper records with accurate chart entries recording medical history, physical examination, vital signs, drugs and doses administered and patient response.
11. Discussion of recovery from inhalational minimal sedation and appropriate discharge criteria.
12. Prevention, recognition and management of complications and emergencies.
13. Administration of local anesthesia in conjunction with inhalation sedation techniques.
14. Description, maintenance and use of inhalation sedation equipment.
15. Description, maintenance and use of emergency equipment and drugs.
16. Introduction to potential health hazards of trace anesthetics and proposed techniques for limiting occupational exposure.
17. Discussion of abuse potential.
18. Discussion of failed pediatric inhalation sedation and alternative care.

C. Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Course Duration: While length of a course is only one of the many factors to be considered in determining the quality of an educational program, the course should be a minimum of 14 didactic hours, which may overlap with adult inhalation sedation instruction, in addition to management of clinical pediatric dental cases, during which clinical competency in inhalation sedation technique is achieved. The pediatric inhalation sedation course most often is completed as a part of the predoctoral dental education program. However, the course may be completed in a postdoctoral continuing education competency course.

D. Participant Evaluation and Documentation of Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Instruction: Competency courses in inhalation sedation techniques must afford participants with sufficient clinical experience to enable them to achieve competency. This experience must be provided under the supervision of qualified faculty and must be evaluated. The course director must certify the competency of participants upon satisfactory completion of training. Records of the didactic instruction and clinical experience, including the number of patients treated by each participant must be maintained and available. Participants must document current certification in Basic Life Support for Healthcare Providers.

E. Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Faculty: The course should be directed by a dentist or physician qualified by experience and training in the care of pediatric patients, including those with special healthcare needs. This individual should possess an active state permit or license to administer moderate sedation to pediatric patients, and a minimum of three years of experience administering sedation to pediatric patients, which may include accredited postdoctoral training in pediatric anxiety and pain control. In addition, the participation of highly qualified individuals in related fields, such as anesthesiologists, pharmacologists, internists, cardiologists and psychologists, should be encouraged.

The participant-faculty ratio should not exceed 10:1 during pediatric inhalation sedation instruction for appropriate supervision during the clinical phase of instruction; a 1:1 ratio is recommended during the early phase of clinical instruction.

The faculty should provide a mechanism whereby the participant can evaluate the performance of those individuals who present the course material.

F. Minimal Sedation (Nitrous Oxide-Oxygen): Inhalation Facilities: Competency courses must be presented in facilities appropriately prepared for pediatric patient care, with drugs and equipment immediately available for the management of emergencies.

Minimal Sedation: Enteral

A. Minimal Sedation: Enteral Course Objectives: In addition to the general objectives listed above, upon completion of a competency course in minimal sedation techniques, the dentist must be able to:

1. List and discuss the advantages and disadvantages of enteral minimal sedation.
2. List and discuss the indications and contraindications for the use of enteral minimal sedation.
3. List the complications associated with enteral minimal sedation.
4. Discuss the prevention, recognition and management of these complications, including patient rescue.
5. Administer enteral minimal sedation to pediatric patients in a clinical setting in a safe and effective manner.
6. Discuss the abuse potential, occupational hazards and other effects of enteral and inhalation agents.
7. Discuss the pharmacology of the enteral and inhalation drugs selected for administration.
8. Discuss the precautions, contraindications and adverse reactions associated with the select enteral medications.
9. Discuss recovery from enteral minimal sedation and appropriate discharge criteria.
10. Describe a protocol for management of emergencies in the dental office and list and discuss the airway maneuvers, emergency drugs and equipment required for management of life-threatening situations.
11. Demonstrate the ability to manage life-threatening emergency situations, including current certification in Basic Life Support for Healthcare Providers. Training in advanced airway management (e.g., Pediatric Advanced Life Support) is strongly suggested.
12. List and discuss failed pediatric sedation and alternative care.

B. Minimal Sedation: Enteral Course Content:

1. Historical, philosophical and psychological aspects of anxiety and pain control.
2. Preventive and non-restorative strategies that may provide an alternative to the use of sedation/general anesthesia, such as Silver Diamine Fluoride (SDF), Alternative Restorative Treatment (ART) and Interim Therapeutic Restoration (ITR).
3. Patient evaluation and selection through review of age, temperament/behavior, medical history taking, and physical diagnosis.
4. Definitions and descriptions of pediatric physiological and psychological aspects of anxiety and pain.

5. Description of the stages of drug-induced central nervous system depression through all levels of sedation, with special emphasis on the distinction between the various levels of sedation.

6. Review of pediatric respiratory and circulatory physiology and related anatomy.

7. Pharmacology of agents used in enteral minimal sedation, including dosing, administration techniques and rates, drug interactions and incompatibilities. Emphasis on unintended deeper level of sedation including monitoring, management and reversal options.

8. Indications and contraindications for use of enteral minimal sedation.

9. Review of dental procedures possible under enteral minimal sedation.

10. Administration of local anesthesia in conjunction with enteral minimal sedation.

11. Pediatric patient monitoring using observation, monitoring equipment, with particular attention to vital signs and monitoring of consciousness level.

12. Maintaining proper records with accurate chart entries recording medical history, physical examination including weight, NPO status, informed consent, medications including local anesthetics and doses, and time-oriented sedation/anesthesia record, including any monitored physiological parameters, recovery and readiness for discharge.

13. Prevention, recognition and management of complications and life-threatening situations including patient rescue.

14. Description, maintenance and use of emergency equipment and drugs.

15. Discussion of abuse potential of sedative medications.

16. List and discuss failed pediatric sedation and alternative care.

C. Minimal Sedation: Enteral Course Duration and Documentation: While course duration is only one of the many factors to be considered in determining the quality of an educational program, the course should include a minimum of 20 didactic hours and a minimum of 10 individually managed clinical sedation cases involving pediatric patients 8 years old and younger, during which competency is demonstrated. The faculty should schedule participants to return for additional clinical experience if competency has not been achieved in the time allotted. The educational course may be completed in a predoctoral dental education curriculum or a postdoctoral continuing education competency course.

Participants must document current certification in Basic Life Support for Healthcare Providers. For trainees providing enteral minimal sedation to pediatric patients, training in advanced airway management (e.g., Pediatric Emergency Assessment and Stabilization (PEARS)) and/or pediatric life support (e.g., Pediatric Advanced Life Support (PALS)) is recommended. Simulation

training in the recognition and management of respiratory emergencies is highly recommended.

D. Participant Evaluation and Documentation of Minimal Sedation: Enteral Instruction: Competency courses in pediatric enteral minimal sedation techniques must afford participants with sufficient clinical understanding to enable them to achieve competency. The course director must certify the competency of participants upon satisfactory completion of the course. Records of the course instruction must be maintained and available.

E. Minimal Sedation: Enteral Faculty: The course should be directed by a dentist or physician qualified by experience and training in care of pediatric patients, including pediatric patients with special healthcare needs. This individual should possess an active permit or license to administer moderate sedation to pediatric patients in at least one state, have had at least three years of experience, including the individual's formal postdoctoral training in anxiety and pain control. In addition, the participation of highly qualified individuals in related fields, such as anesthesiologists, pharmacologists, internists, cardiologists and psychologists, should be encouraged. The faculty should provide a mechanism whereby the participant can evaluate the performance of those individuals who present the course material.

The participant-faculty ratio should not exceed 4:1 during enteral minimal sedation instruction for appropriate supervision during the clinical phase of instruction; a 1:1 ratio is recommended during the early phase of clinical instruction.

F. Minimal Sedation: Enteral Facilities: Competency courses must be presented in facilities appropriately prepared for pediatric patient care, including drugs and equipment immediately available for the management of emergencies.

V. Teaching Administration of Pediatric Moderate Sedation

These *Guidelines* present a basic overview of the requirements for a competency course in pediatric moderate sedation. These include courses in enteral and parenteral pediatric moderate sedation. The teaching guidelines contained in this section on moderate sedation differ slightly from documents in medicine to reflect the differences in delivery methodologies and practice environment in dentistry.

Completion of a prerequisite nitrous oxide-oxygen competency course is required for participants utilizing nitrous oxide-oxygen for moderate sedation.

A. Pediatric Moderate Sedation Course Objectives: Upon completion of a course in pediatric moderate sedation, the dentist must be able to:

1. List and discuss the advantages and disadvantages of moderate sedation.

2. Discuss the limitations of moderate sedation when treating pre-cooperative pediatric patients.

3. Describe and demonstrate the techniques of intravenous access, intramuscular injection and other parenteral techniques (e.g., intranasal).

4. Discuss the pharmacology of the drug(s) selected for administration.

5. Discuss the precautions, indications, contraindications and adverse reactions associated with the drug(s) selected.

6. Discuss the pharmacological effects of combined drug therapy, their implications and their management including an understanding that nitrous oxide-oxygen when used in combination with sedative agent(s) may produce moderate or deep sedation or general anesthesia.

7. Administer moderate sedation to pediatric dental patients in a clinical setting in a safe and effective manner.

8. Discuss recovery from moderate sedation and appropriate discharge criteria.

9. List and discuss the prevention, recognition and management of complications associated with moderate sedation.

10. List and discuss the emergency drugs and equipment required for the prevention and management of emergency situations.

11. Describe a protocol for management of emergencies in the dental office. Reinforce need to practice drills regularly in practice setting.

12. Discuss principles of pediatric advanced life support, or an appropriate pediatric dental sedation/anesthesia emergency course equivalent.

13. Demonstrate the ability to recognize and treat emergencies including reversal and rescue during an unintended deeper level of sedation.

14. Discuss the abuse potential, occupational hazards and other untoward effects of the agents utilized to achieve moderate sedation.

15. List and discuss failed pediatric sedation and alternative care.

B. Pediatric Moderate Sedation Course Content:

1. Historical, philosophical and psychological aspects of anxiety and pain control.

2. Patient evaluation and selection through review of age, temperament/behavior, medical history taking, and physical diagnosis including Malampatti scoring and tonsillar assessment.

3. Use of patient history and examination for ASA classification, risk assessment and pre-procedure fasting instructions.

4. Definitions and descriptions of physiological and psychological aspects of anxiety and pain.

5. Description of the sedation/general anesthesia continuum, with special emphasis on the distinction between minimal, moderate and deep sedation and general anesthesia.

6. Review of respiratory and circulatory physiology and related anatomy.

7. Pharmacology of local anesthetics and agents used in moderate sedation, including drug interactions and contraindications. Emphasis on the role of local anesthetic toxicity in producing unintended deeper levels of sedation. The use of reversible sedation drugs is encouraged.

8. Indications and contraindications for use of moderate sedation.

9. Review of dental procedures possible under moderate sedation.

10. Review of enteral moderate sedation techniques.

11. Intravascular access: anatomy, equipment and techniques for intravenous and intraosseous access. Prevention, recognition and management of complications of venipuncture and emergency intraosseous access techniques.

12. Review of parenteral moderate sedation techniques.

13. Description and rationale for the technique to be employed.

14. Description, maintenance and use of moderate sedation monitors and equipment.

15. Patient monitoring using patient observation and monitoring equipment, with particular attention to vital signs, ventilation/oxygenation, and level of consciousness. Monitoring equipment reviewed should include: pulse oximeter, automated non-invasive blood pressure devices, electrocardiogram, capnograph and pretracheal stethoscope.

16. Personnel requirements and roles of auxiliaries in monitoring sedation.

17. Maintenance of proper records with accurate chart entries recording medical history, physical examination including weight, NPO status, informed consent, medications including local anesthetics and doses, and time-oriented sedation/anesthesia record, including any monitored physiological parameters, recovery and readiness for discharge.

18. Prevention, recognition and management of complications and emergencies, with emphasis on pediatric airway maintenance and cardiovascular support.

19. List and discuss failed pediatric sedation and alternative care.

20. Discussion of abuse potential of sedative medications.

C. Pediatric Moderate Sedation Course Duration and Documentation: The Course must include:

- A minimum of 60 hours of didactic instruction.
- A minimum of 20 individually managed clinical cases of moderate sedation for pediatric patients 8 years old and younger; at least 15 patients must be under 6 years of age.
- Certification of competence in pediatric moderate sedation technique(s).
- Certification of competence in rescuing patients from a deeper level of sedation than intended including managing the airway, intravascular or intraosseous access, and reversal medications.
- Provision by course director or faculty of additional clinical experience if participant competency has not been achieved in time allotted.
- Records of instruction and clinical experiences (i.e., number of patients managed by each participant in each modality/route) that are maintained and available for participant review.

Dentists providing moderate sedation to pediatric patients must also receive training in advanced emergency recognition and airway management ideally incorporating live patient experience or emergency management training using high fidelity simulation. As an alternative, PALS (Pediatric Advanced Life Support) and/or PEARS (Pediatric Emergency Assessment, Recognition and Stabilization) courses or other courses which provide similar training may be used.

D. Pediatric Moderate Sedation Documentation of Instruction: The course director must certify the competency of participants upon satisfactory completion of training in each moderate sedation technique, including instruction, clinical experience, managing the airway, intravascular/intraosseous access, and reversal medications.

E. Pediatric Moderate Sedation Faculty: The course should be directed by a dentist or physician qualified by experience and training in care of pediatric patients, including those with special healthcare needs. This individual should possess an active state permit or license to administer moderate sedation to pediatric patients, and a minimum of three years of experience administering sedation to pediatric patients, which must include accredited postdoctoral training in pediatric anxiety and pain control. In addition, the participation of highly qualified individuals in related fields, such as anesthesiologists, pharmacologists, internists, cardiologists and psychologists, should be encouraged.

The participant-faculty ratio should not exceed 4:1 during moderate sedation instruction for appropriate supervision during the clinical phase of instruction. A 1:1 ratio is recommended during the early phases of clinical instruction.

Course and faculty evaluations should be completed by participants and made available for review.

F. Pediatric Moderate Sedation Facilities: Competency courses must be presented in facilities appropriately prepared for pediatric patient care, with drugs and equipment immediately available for the management of emergencies. These facilities may include dental and medical schools/offices, hospitals and surgical centers.

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[8] *ASA Physical Status Classification System* is reprinted with permission of the American Society of Anesthesiologists, Last Amended October 23, 2019 original approval: October 15, 2014.

[9] *American Society of Anesthesiologists: Practice Guidelines for preoperative fasting and the use of pharmacologic agents to reduce the risk of pulmonary aspiration: application to healthy patients undergoing elective procedures*. Anesthesiology 114:495. Updated in 2017. Reprinted with permission.