MEETING MINUTES
AMERICAN DENTAL ASSOCIATION
COUNCIL ON DENTAL EDUCATION AND LICENSURE
ADA HEADQUARTERS, CHICAGO | Zoom Meetings
JUNE 19-20, 2023

Call to Order: The regular meeting of the Council on Dental Education and Licensure was called to order by Dr. James D. Nickman, CDEL chair, at 9:05 am on Monday, June 19, 2023. Council members attended in-person and virtually via Zoom Meetings.

Roll Call: Dr. Cheska Avery-Stafford (2024), Dr. Donald P. Bennett (2025), Dr. Shandra L. Coble (2025) (via zoom), Dr. Kimon Divaris (2024) (via zoom), Dr. Jarod W. Johnson (2023), Dr. Steven M. Lepowsky (2023), Dr. Maureen McAndrew (2026), Dr. Maurice S. Miles (2023), Dr. Barbara L. Mousel (2024), Dr. James D. Nickman (2023), Dr. Joan Otomo-Corgel (2023), Dr. Paul A. Shadid (2026), Dr. Todd Smith (2026), Dr. Jason A. Tanguay (2025), Dr. Bruce R. Terry (2024), Dr. Najia Usman (2025), and Dr. Catherine Watkins (2026) were present.

Dr. Brendan P. Dowd attended as the ADA Board Liaison to the Council. Dr. Ryan Kaminsky, student consultant from the American Student Dental Association, was unable to attend.

Council Staff in attendance: Ms. Tierra Braxton, coordinator, Ms. Mary Ellen Murphy, licensure affairs coordinator, Dr. Sarah Ostrander, senior manager, Ms. Annette Puzan, manager and Dr. Meaghan D. Strotman, director.

Other ADA Staff in attendance for all or portions of the meeting: Ms. Nicole Anderson, manager, Social Media and Influencer Strategy, Mr. Daniel Bahner, contractor, Diversity and Inclusion, Dr. Raymond Cohlmia, executive director, American Dental Association, Ms. Sandra Eitel, senior director, Research, Analytics & Member Growth, Ms. Susan Galvan, senior manager, DEI Program Innovation & Engagement, Dr. Matthew Grady, director of development, Department of Testing Services, Ms. Jennifer Hall, assistant general counsel, Dr. Kathleen J. Hinshaw, director, Operations, Department of Testing Services, Ms. Heidi M. Nickisch Duggan, director, ADA Library & Archives, Mr. Chad Olson, director, State Government Affairs, Ms. Joan Podrazik, director, Public and Professional Communications, Matthew Rossetto, legislative liaison, department of State Government Affairs, and Dr. Anthony J. Ziebert, senior vice-president, Education and Professional Affairs.

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. Bruce Burton, chair, Council on Ethics, Bylaws and Judicial Affairs, Dr. Manish Chopra, chair, Council on Dental Practice, Dr. Linda J. Edgar, president-elect, American Dental Association, Dr. Daniel Gesek, chair, Council on Government Affairs, Dr. Sharukh Khajotia, chair, Council on Scientific Affairs, Ms. Cindy Lefebvre, programs advisor, Canadian Dental Association, Ms. Rachel Luoma, MS, CAE, chief staff executive, National Board for Certification in Dental Laboratories, Mr. Bennett Napier, MS, CAE, executive director, National Association of Dental Laboratories, Dr. George R. Shepley, president, American Dental Association, Dr. Tonia Socha-Mower, executive director, American Association of Dental Boards, Ms. Rebecca Stolberg, vice-president Allied Dental and Faculty Development, American Dental Education Association, Dr. Sherin Tooks, director, Commission on Dental Accreditation and Ms. Rebecca Wade, chair, National Board for Certification in Dental Laboratories.

Adoption of Agenda, Disclosure Policy and Confidentiality Policy: The Council approved the meeting agenda and authorized the chair to alter the order of the agenda items as necessary to expedite business. Dr. Nickman directed the Council's attention to the ADA Disclosure Policy and ADA Confidentiality Policy. Dr. Joan Otomo-Corgel disclosed that she is on the California Dental Association Board of Directors.

Affirmation of E-mail Ballots: The Council acknowledged e-mail ballots since the January 2023 meeting:

a. Minutes: January 26-27, 2023 Meeting (Ballot 2023-1)
b. ITL Scholarship Selection (Ballot 2023-2)
c. Proposed Revision to Dental Assisting Standard 3-6 (Ballot 2023-3)

Consent Calendar: A consent calendar was prepared to expedite the business of the Council. Dr. Nickman reminded Council members that any report, recommendation or resolution could be removed from the consent calendar for discussion. The following reports in their entirety, including recommendations, were placed on the consent calendar and adopted as received:

Reports to the Council:

American Student Dental Association Update

Dental Education Committee:

Update on Activities of the Commission on Dental Accreditation (CODA)

Consideration of Proposed Revision to the Accreditation Standards for Dental Assisting Education Programs, Standard 3-6

> **Recommends**, that the Council send written comment to CODA supporting the proposed revision to Standard 3-6 of the Accreditation Standards for Dental Assisting Education Programs.

Consideration of Nominees for the CDEL Tuition Scholarship to the Academy for Advancing Leadership's Institute for Teaching and Learning

> **Recommends,** that the Council award Dr. Jennifer Marie Forsythe, Dr. Kimberly Wade and Dr. Caroline Zeller with the 2023 CDEL Tuition Scholarship to the Academy for Academic Leadership's Institute for Teaching and Learning.

Dental Admission Testing Committee:

Dental Admission Test (DAT) Program Activities

> **Recommends,** the Council adopt the Strategic Goals and Roadmap presented in Table 1 of Appendix 1, as setting the strategic direction for the Dental Admission Test (DAT) program.

Advanced Dental Admission Test (ADAT) Program Activities

Admission Test for Dental Hygiene (ATDH) Program Activities

Test Constructor Application Review Process

Reports from Committee Liaisons

Approval of Test Constructors to Serve in Test Constructor Pools 2023

> **Recommends,** the Council appoint the individuals listed in Appendix 2 to serve in the 2024 DAT Test Constructor Pool in the area(s) of expertise indicated.

> **Recommends,** the Council appoint the individuals listed in Appendix 3 to serve in the 2024 ADAT Test Constructor Pool in the area(s) of expertise indicated.

> **Recommends,** the Council appoint the individuals listed in Appendix 4 to serve in the Test Constructor Pool and subject areas indicated.

> **Recommends,** the Council appoint the individuals listed in Appendix 5 to serve in the 2024 ATDH Test Constructor Pool in the area(s) of expertise indicated.

> **Recommends,** the Council appoint the individuals listed in Appendix 6 to serve in the Fairness and Sensitivity Reviewer Pool.

> **Recommends,** the Council direct staff to develop a proposal for consideration by CDEL in 2024, outlining the potential development of an ethics section for the DAT.

Licensure Committee:

Update on the Coalition for Modernizing Dental Licensure

Update on Bills and Changes in State Regulations

Anesthesiology Committee:

Consideration of Nominations to the Anesthesiology Committee

Recommends, the Council on Dental Education and Licensure extend the appointment of Dr. Roy Stevens to serve as the ADA representative on the Anesthesiology Committee for one year, concluding at the close of the 2024 ADA House of Delegates.

Recommends, the Council on Dental Education and Licensure appoint Paul M. Ciuci, DMD, MD, FACS to serve as the AAOMS representative on the Anesthesiology Committee for a four-year term commencing at the close of the 2023 ADA House of Delegates.

Update on Review of Managing Sedation Complications Online Course

Continuing Education Committee Summary Report

REPORTS OF RELATED GROUPS TO THE COUNCIL

Opening Remarks from the ADA President: Dr. Shepley greeted the Council and praised the Council for its contributions to the dental profession and efforts to support the Association. He highlighted the discussion with six dental school deans at the recent Board of Trustees meeting and updated the Council on continued improvements for the future success of the ADA.

American Dental Association Board of Trustees Liaison: On behalf of the Board of Trustees, Dr. Dowd provided the Council with an update on Board activities. Dr. Dowd emphasized the Board's support of the tripartite and its value and importance to the profession. He noted a recent meeting with dental school deans where discussion focused on the future of education and the profession, financial and faculty recruitment challenges, technology and curriculum changes. He also highlighted recent meetings with large group practices and new dentists, noting opportunities to strengthen and develop relationships.

Senior Vice President, Education/Professional Affairs: Dr. Ziebert shared a brief budget update for the ADA Division of Education and Professional Affairs. He reported that a review of Q1 results indicated the Division is on target. The Council was reminded of the change to the annual budget process and was informed that planning for the 2024 budget has just started.

New Dentist Committee (NDC): Dr. Johnson shared that the New Dentist Committee's greatest challenges include declining membership at the ADA and student concerns related to student debt, finding a job and mentorship. Accordingly, the NDC is working on membership growth opportunities like providing mentorship toolkits to states that are interested in starting a mentorship program. At the 2023 SmileCon, the NDC will host miniature townhall sessions focused on building a dental practice and will also honor this year's winners of the ADA 10 Under 10 Awards. The NDC will host a virtual Town Hall on July 12, 2023 focused on family planning. Dr. Johnson also shared that members from the Committee continue to engage and stay active with dental schools by attending events hosted by the American Student Dental Association. Lastly, Dr. Johnson noted that the Amplifying Voices webinar series, sponsored by the New Dentist Committee and Diversity and Inclusion Committee, continues to provide a space to hear perspectives around diversity, equity, and inclusion in dentistry and the ADA. Diversity ambassadors have completed the webinar series and currently serve on the New Dentist Committee.

Commission on Dental Accreditation: Dr. Tooks noted that the Commission is in the process of revising several sets of accreditation standards. Comments on proposed revisions to the Accreditation Standards for Advanced Dental Education Programs in Oral and Maxillofacial Radiology, Pediatric Dentistry, Orofacial Pain and Accreditation Standards for Dental Assisting Education Programs were due to CODA by June 1, 2023 and will be reviewed by the Commission at their Summer 2023 meeting. Comments on proposed revisions to the Accreditation Standards for Advanced Dental Education Programs in Dental Public Health and Orofacial Pain are due to CODA by December 1, 2023 and will be reviewed by the Commission at their Winter 2024 meeting. Dr. Tooks also shared that CODA has several Ad Hoc Committees that are currently conducting various projects for the Commission. The Ad Hoc Committee on Alternative Site Visit Methods, initially developed at the onset of the COVID-19 pandemic to address how the Commission would conduct accreditation onsite reviews, continues to discuss phasing out virtual site visits and transitioning back to onsite evaluation of programs as required by the Department of Education. The Ad Hoc Committee on Volunteerism is currently looking into ways to enhance volunteerism for CODA which has slightly declined

due to faculty schedules. The Ad Hoc Committee considering review of faculty to student ratios within the Commission's Accreditation Standards continues to meet in closed session and is expected to provide a report to the Commission at its August 2023 meeting. Dr. Tooks concluded her report by highlighting that the Commission is seeing an increase in applications and accreditation of new programs with seven new education programs being granted accreditation during the most recent Winter 2023 meeting.

American Dental Education Association (ADEA): Ms. Stolberg shared that ADEA recently celebrated its 100th Anniversary Annual Session and Exhibition in Portland, Oregon. The 2024 Annual Session will be held in March in New Orleans, LA, in conjunction with ADEA's Seventh International Women's Leadership Conference. Ms. Stolberg reported that ADEA released its "2021-2022 U.S. Dental Faculty Compensation National Report" and its biennial report, "ADEA Allied Dental Program Directors 2022: Tables Report". Both reports are available on ADEA's website. The ADEA "U.S. Dental School Faculty Vacant Positions Report" is scheduled to be released end of Summer 2023. Ms. Stolberg highlighted the collaboration with the ADA to develop a modular curriculum to assist new dentist and allied dental teaching faculty entering academia from private practice. ADEA is currently in Phase 3 of its Climate Study which focuses on measuring the perceptions of students, faculty, staff and administrators regarding inclusion, equity and diversity. Ms. Stolberg concluded her report by highlighting that in addition to face-to-face recruitment events, ADEA is now also focusing on hosting virtual recruitment events such as the event titled, "ADEA GoDental Virtual Fair".

Joint Commission on National Dental Examinations (JCNDE): Ms. Hinshaw shared that the JCNDE held a strategic planning meeting in May 2023, during which there was discussion of strategies for increasing adoption of the Dental Licensure Objective Structured Clinical Examination (DLOSCE) by state dental boards. The development of the Dental Hygiene Licensure Objective Structured Clinical Examination (DHLOSCE) is on track with an expected launch date at the end of 2024. Dr. Grady shared that a dental hygiene practice analysis is currently being conducted. Survey results will be reviewed and used to inform updates to the test specifications for both the DHLOSCE as well as the National Board Dental Hygiene Examination (NBDHE). Dr. Grady concluded by noting that the JCNDE has approved a road map to help set the strategic direction for its dental hygiene examinations.

American Association of Dental Boards (AADB): Dr. Socha-Mower provided an update on AADB's work on a guidance document with the U.S. Teledentistry Coalition. She also noted that AADB partnered with the Federation of State Medical Boards, and the National Association of Boards of Pharmacy and the National Council of State Boards of Nursing on the Opioid Regulatory Collaborative. The AADB's Annual Meeting will be held on October 19-21, 2023, in Hollywood, CA.

National Commission on Recognition of Dental Specialties and Certifying Boards (NCRDSCB): Ms. Baumann noted that the Commissioners met in-person for their April 2023 meeting; the last in-person meeting was in March 2020 due to the COVID-19 pandemic. The Commission's strategic plan expires in 2025 and the Commission is currently engaged in developing its 2025-2030 strategic plan. Ms. Baumann reported that the National Commission approved draft internal documents related to subspecialty recognition in anticipation that a subspecialty may request recognition in the future. The Commission will seek input from communities of interest on the draft documents related to subspecialty recognition when a request is made. Ms. Baumann concluded her report by noting that the certifying boards are changing their process for certification maintenance. The Commission will continue to monitor this topic and work with the Council to ensure that any changes to certification maintenance comply with the Requirements for Recognition of Dental Specialties and National Certifying Boards for Dental Specialists.

Commission for Continuing Education Provider Recognition (CCEPR): Ms. Borysewicz reminded the Council of the Commission's revised Eligibility Criteria that take effect on July 1, 2023. Upon implementation, commercial interests will no longer be eligible for CERP recognition. The Commission adopted a three-year strategic plan prioritizing revision of the CERP standards to focus on core elements that lead to effective education to promote improvements in knowledge, skills and performance in practice. Ms. Borysewicz concluded by sharing that CCERP is working on implementing a new application platform that will allow for electronic submission and review of applications.

Canadian Dental Association (CDA): Ms. Lefebvre shared that the CDA continues to collaborate closely with the ADA Testing Department and Prometric to execute the daily operational functions of the computer-based dental aptitude test. The CDA has resumed discussions with the Association of Canadian Faculties of Dentistry to renew the agreement to invest a million dollars on admissions research between both

organizations. Ms. Lefebvre noted that the CDA continues to monitor changes and is involved in discussions related to the Canada Dental Benefit (CDB) and is working to ensure that any provisions put into place minimize the administrative burden on dental offices. Council members were reminded that the Commission on Dental Accreditation of Canada became its own entity on January 1, 2023 as mandated by the government. Ms. Lefebvre explained that this change impacts the CDA's ability to engage the profession in several important discussions. To address this issue, the CDA is exploring the concept of a council of the dental profession whose priority would be to provide assessments and advice on key issues relevant to the profession of dentistry and the oral health of Canadians. Ms. Lefebvre concluded her report by highlighting that the CDA has engaged in a strategic planning process intended to set CDA's priorities and goals for the next five years; the strategic plan is expected to be completed by Summer 2024.

REPORTS OF COUNCIL MEMBERS SERVING ON OTHER ASSOCIATION AGENCIES/COMMITTEES

Library and Archives Advisory Board Update: Dr. Coble, CDEL representative serving on the ADA Library and Archives Advisory Board, briefed the Council on the Library and Archives 2023 activities. The Council was reminded that the Library & Archives provides ADA Members access to subscribed electronic content 24 hours a day. It was also noted that staff informationist, Ms. Kelly O'Brien engages in expert searching for clinical guideline development and systematic reviews, and provides education and access to evidence-based clinical tools, drug information and expert support for other initiatives. Data informationist, Ms. Nicole Strayhorn, collaborates with divisions across the ADA to consult and provide data visualization services. In 2022 the ADA House of Delegates directed that a searchable digital archive of state component publications be established. Library staff is developing a repository and journal publishing platform called ADA Commons, composed of curated collections tailored for dental and oral healthcare research needs. The database is anticipated to be available in summer 2023.

Faculty Joint Action Team: Dr. Usman and Dr. Divaris provided an update on the Faculty Joint Action Team, established by the Council on Membership to explore current challenges and potential solutions for membership for internationally trained non-US licensed dental school faculty. The team, composed of two representatives each from the Council on Membership, the Council on Scientific Affairs and the Council on Dental Education and Licensure, met multiple times to discuss and come to consensus on a resolution that was presented and approved by the Council on Membership at its meeting June 16-17, 2023. Ms. Eitel presented the resolution approved by the Council on Membership outlining the Bylaws amendments and requested CDEL's support. The Council discussed and provided comment on the resolution for the Council on Membership's consideration.

COMMITTEE REPORTS

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

Consideration of Proposed Revision to the Accreditation Standards for Advanced Dental Education Programs in Dental Public Health (All Standards): The Council reviewed a written report that detailed CODA's drafted revisions to the current Accreditation Standards for Advanced Dental Education Programs in Dental Public Health based on the findings of the recently conducted validity and reliability study of the standards.

The Council and its Dental Education Committee carefully reviewed and supported the proposed revisions. Further, the Council agreed with the Dental Education Committee and the Commission and its Dental Public Health Education Review Committee that an additional revision was warranted to Standard 4-9, amending the use of the term "unique" to "vulnerable" regarding patient populations and experiences of students/residents in public health dental care settings.

> **Action:** The Council directed that written comment be sent to CODA supporting the proposed revisions to the Accreditation Standards for Advanced Dental Education Programs in Dental Public Health (Appendix 7).

Consideration of Proposed Revision to the Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain (All Standards): The Council reviewed a written report that detailed CODA's

drafted revisions to the current Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain based on the findings of the recently conducted validity and reliability study of the standards.

The Council and its Dental Education Committee carefully reviewed and supported the proposed revisions. In addition, the Dental Education Committee recommended, and the Council agreed that an additional edit to Standard 2-10 is necessary.

Action: The Council directed that written comment be sent to CODA supporting the proposed revisions to the Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain (Appendix 8) with an additional proposed amendment to Standard 2-10 as follows in red font (CODA's proposed addition is underlined; proposed deletion is ~~stricken~~):

2-10 The program **must** provide training to ensure that upon completion of the program, the resident is able to manage patients with special needs.

Intent: The program is expected to provide educational instruction, ~~either~~ didactically and/or clinically, during the program which enhances the resident's ability to manage patients with special needs.

Examples of evidence to demonstrate compliance may include:
Written goals and objectives or competencies for resident training related to patients with special needs
Didactic schedules

Licensure Committee: Dr. Usman reminded the Council that all the Committee's business except the Dentist and Dental Hygienist (DDH) Compact, reported elsewhere in these minutes, was approved via the consent calendar. Dr. Usman provided a brief update on pending legislation in Ohio noting the DDH Compact is supported by both the Ohio Dental and Dental Hygienists' Associations. Dr. Usman also shared with the Council an editorial change to CDEL's resolution to amend the ADA Comprehensive Licensure Policy Statement made after review by the Speaker of the House and ADA legal department. The change in language did not impact the intent of the statement but ensured conformity with ADA policies and resolutions.

Dental Admission Testing Committee: Dr. Avery-Stafford presented the Committee's comments and recommendations to the Council. The following summarizes the agenda items discussed.

Testing Fees and Waivers: The Council and its Dental Admission Testing Committee reviewed the report providing information regarding the DAT fee waiver program and retest policy. The review was requested by the Council at its January 2023 meeting and subsequently by the ADA Task Force to Eliminate Barriers for Underrepresented Minorities into the Dental Profession. As requested, the Council and its Dental Admission Testing Committee considered the current fee structure taking into consideration increasing dental education costs and possible expansion of the fee waiver program to reduce barriers for Historically Underrepresented Racial and Ethnic (HURE) students who are interested in pursuing a dental career. The Council and its Committee also noted that the DAT generates revenue for the American Dental Association supporting ADA operational expenses, membership benefits, and policy-based programs, including those involving HURE groups and that changes to the DAT Fee Waiver Program and Retest Policy, if approved, would result in budgetary implications. After lengthy discussion and consideration of numerous proposals, the Committee recommended, and the Council agreed that the number of Dental Admission Test (DAT) partial fee waivers for first attempts be increased from 200 to 400 with the additional partial fee waivers (200) designated specifically for historically underrepresented racial and ethnic (HURE) candidates and available in 2024. Additionally, the Committee recommended, and the Council agreed that the partial fee waivers be released at strategic intervals throughout the calendar year and that all candidates who receive a partial fee waiver on their first attempt receive a partial fee waiver on the first retest attempt and a full fee waiver on their first DAT practice test.

Action: The Council directed that the total number of DAT partial fee waivers for first attempts offered per calendar year be increased from 200 to 400, with the additional partial fee waivers (200) designated specifically for HURE students and available in 2024.

Action: The Council directed staff in the Department of Testing Services to implement the DAT fee waiver application process and availability of partial fee waivers at strategic intervals throughout the calendar year (rather than once annually).

Action: The Council directed that all candidates who receive a first attempt partial fee waiver, also receive a partial fee waiver (50%) on their first DAT retest attempt.

Action: The Council directed that all candidates who receive a first attempt partial fee waiver also receive a full fee waiver (100%) on their first DAT practice test.

Action: The Council directed that written correspondence be sent to the Task Force to Eliminate Barriers for Underrepresented Minorities into the Dental Profession, noting the Council's actions on this matter.

Action: The Council directed that the staff of the Department of Testing Services report to the Council at its June 2025 meeting metrics on all the recommended changes associated with the DAT partial fee waivers.

Consideration of Nominations for Vacancy on the Dental Admission Testing Committee: The Council discussed the resignation of Mr. Stan Constantino from the Dental Admission Testing Committee, effective August 2022. The Council sought nominations to fill the Admissions Officer/Registrar/Administrator position. The Committee reviewed and supported the nomination of Dr. Juliette C. Daniels; the Council agreed.

Action: The Council appointed Dr. Juliette C. Daniels to complete the remainder of Dr. Constantino's term through October 2023 and serve on the Dental Admission Testing Committee through October 2027.

Anesthesiology Committee: Dr. Kimon Divaris presented the Committee's comments and recommendations to the Council. The following summarizes the agenda items discussed.

Consideration of ADA Policies on Sedation and Anesthesia: In 2021, the Council on Dental Education and Licensure (CDEL) was responsible for reviewing the *Guidelines for the Use of Sedation and General Anesthesia by Dentists*, the *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*. Review of the policy and guidelines was postponed until Q4 2023 pending delivery of a scoping review on moderate sedation in adults in the dental setting by the ADA Council on Scientific Affairs (CSA) with the support of the ADA Science and Research Institute (ADASRI). Due to the CSA's decision to modify the format, scope and timeline of CDEL's request, the Committee established an ad hoc committee to review the current *Guidelines for the Use of Sedation and General Anesthesia by Dentists*, the *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* for relevance, continued need, appropriate language and terminology and to ensure there are no glaring inaccuracies that would require an immediate address. The Committee recommended and the Council agreed that the *ADA Policy Statement: The Use of Sedation and General Anesthesia by Dentists* be retained as written.

Action: The Council directed that the *ADA Policy Statement: The Use of Sedation and General Anesthesia by Dentists* be retained as written (Appendix 9) and that the Council report this conclusion to the 2023 House of Delegates.

The Council was reminded that in January 2021, the Council adopted the *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students.* The Committee recommended and the Council agreed that the *Guidelines for the Use of Sedation and General Anesthesia by Dentists* should be updated as soon as possible to include reference the *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students*.

Action: The Council directed to propose to the 2023 House of Delegates that the *Guidelines for the Use of Sedation and General Anesthesia by Dentists* be amended to include reference to the Council's *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students* (Appendix 10, Lines 16-18).

During further discussion, Dr. Divaris reminded the Council that prior to adoption of the *Guidelines for Teaching Pediatric Pain Control and Sedation* by the Council in January 2021, CDEL leadership sought advice and confirmation from ADA leadership and the ADA legal department that once adopted the *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students* would remain under the purview of the Council and the experts on the Anesthesiology Committee so that the document may be updated as necessary. Given the precedent that has been set, Dr. Divaris proposed that the Council request the House of Delegates give the Council oversight of the *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* giving the Council and the expert members of the Anesthesiology Committee the ability to maintain the currency and update the *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* as necessary. The Council agreed.

> **Action:** The Council directed to propose to the 2023 House of Delegates that the *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* be amended to include reference to the Council's *Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students* (Appendix 11, Lines 49-51).
>
> Further, that the Council request that the House of Delegates delegate to the Council on Dental Education and Licensure full oversight and responsibility of the *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students.*

Continuing Education Committee: Dr. Terry reminded the Council that the Committee's business was approved via the consent calendar and shared that the "Transitioning from Practice to Dental Education" continuing education course sponsored by the Council will be presented at the 2023 SmileCon on Friday, October 6th at 10:30am.

EMERGING ISSUES, TRENDS AND MISCELLANEOUS AFFAIRS:

ADA Executive Director's Update: Dr. Cohlmia provided an update on his priorities for the ADA in his presentation "Continuing the ADA's New Day Defining Our Future." He highlighted the biggest challenges in dental practice, shifts in practice models, leveraging emerging technology, and upcoming changes to the ADA. He reported that the Strategic Forecasting Committee is on schedule to be fully operational in December 2023.

NBC and NADL Efforts to Address Declining CODA-accredited Certified Dental Technician and Dental Laboratory Programs: Council members were reminded that at the January 2023 CDEL meeting, the Council shared the Board's concerns related to the declining number of Certified Dental Technicians and Dental Laboratory Technology Programs accredited by the Commission on Dental Accreditation (CODA) and requested that the National Board for Certification in Dental Laboratories (NBC) be invited to the next Council meeting to share its views and potential actions to address this matter. In preparation for the Council meeting, NBC and the National Association of Dental Laboratories (NADL) submitted preliminary information to facilitate the conversation on addressing the decline of CODA-accredited dental laboratory technology programs and the decline of the number of certified dental technicians.

Accordingly, Mr. Napier summarized NBC and NADL's proposed and existing solutions to address the decline of CODA Accredited Dental Laboratory Technology Programs as described in detail in its report to the Council. Mr. Napier discussed the possibility of the NADL and ADA working collaboratively to encourage state dental societies to advocate for inclusion in dental practice acts provisions related to the registration of dental laboratories and employment of at least one CDT. He also proposed that the timeline for adoption of changes to CODA standards could be shortened. Mr. Napier noted that as part of NADL's current strategic plan, NADL has invested in a number of efforts to bring awareness of the CDT profession including the Foundation for Dental Laboratory Technology. In addition, Mr. Napier summarized NBC and NADL's existing solutions to address the decline of the Number of Certified Dental Technicians (CDTs). Those efforts include offering all written and practical exams remotely, launching a seventh CDT specialty, the Digital Workflow CDT specialty, and changing eligibility requirements. Taking NBC's and NADL's written report and oral update into consideration, the Council discussed concerns related to the declining number of CDTs and Dental Laboratory Technology Programs accredited by CODA and proposed a comprehensive review of the accreditation standards for Dental Laboratory Technician programs may be appropriate.

> **Action:** The Council directed that written correspondence be sent to the Commission on Dental Accreditation (CODA) and the National Board for Certification in Dental Laboratories (NBC)

proposing a comprehensive review of the accreditation standards for Dental Laboratory Technician programs.

Spectra Diversity and Inclusion Assessment and Aggregate Results: Ms. Susana Galvan and Mr. Daniel Bahner shared with the Council an update on the Culture of Change initiative and the Council's aggregate results on the Spectra Diversity and Inclusion Assessment. The Council was informed that the assessment will be relaunched before the end of the summer for those members who did not have an opportunity to complete the survey. Ms. Galvan shared training resources available to those interested in learning more and encouraged Council members interested in helping advance DEI at the ADA to consider joining the ADA Champions Network.

Social Media Influencer Strategy: Ms. Joan Podrazik and Ms. Nicole Anderson provided a brief overview of influencer marketing and communications and shared an update on the ADA's 2023 social influencer pillars and main priority areas of focus. They discussed the ADA's Ambassador Program, highlighting the importance of relationship building to the success of the social media strategy and associated marketing campaigns.

Council Chair Remarks: Prior to the Council meeting, Dr. Nickman invited the chairs and vice chairs of other Councils to attend a portion of the Council meeting on June 20th and share activities of their agencies. The following 5 Council chairs/vice chairs attended and provided updates (listed alphabetically by Council):

- Council on Communications – Dr. Prabha Krishan
- Council on Dental Practice – Dr. Manish Chopra
- Council on Ethics, Bylaws and Judicial Affairs – Dr. Bruce Burton
- Council on Government Affairs – Dr. Daniel Gesek
- Council on Scientific Affairs – Dr. Sharukh Khajotia

Coalition for Modernizing Dental Licensure (CMDL): Dr. Ostrander provided an update on the activities of the Coalition for Modernizing Dental Licensure. At the Executive Committee meeting on June 8, 2023, the Committee voted to consolidate from two memberships categories into a single membership category referred to as Partners. The Coalition currently has 124 Partner organizations. A quarterly newsletter will be published starting in July 2023. In support of its goal of increasing professional mobility, the Coalition will continue to advocate for enactment of the Dentist and Dental Hygienist Compact and work with the ADA, ADHA, and ADSO on a state-by-state basis to engage with stakeholders specifically students and dental and dental hygiene education programs. In support of its goal of eliminating the patient from the licensure process, a literature review is being conducted on the ethics of patient involvement in licensure exams. The next Executive Committee meeting and Annual Coalition Webinar will be held on September 14, 2023.

Licensure Compacts Update: Dr. Lepowsky provided an update on the Dentist and Dental Hygienist (DDH) Compact. The Compact provides an opportunity for multi-state practice and ease of portability. In March 2021, the Department of Defense announced that dentistry and dental hygiene were selected to receive guidance from the Council on State Governments (CSG) to develop an interstate compact. Development of the legislation took place between fall 2021 and the end of 2022. The final legislative language was released in January 2023. The compact is currently in the second of three phases, which includes education and advocacy for adoption by state legislatures. The compact will enter the third phase and become operational with establishment of the compact commission when seven states have enacted the compact. To date, three states have enacted the DDH compact, including Iowa, Washington, and Tennessee.

Mr. Rossetto shared an update on progress and advocacy efforts in 2023 and highlighted states that have expressed interest in introducing the compact legislation in 2024. He noted that adoption of compacts often happens regionally with clusters of states enacting legislation. Mr. Rossetto concluded by informing the Council that CSG is hosting a legislative summit in September and has invited state dental association staff as well as legislators interested in learning more about or introducing the compact legislation in their states.

State Associations' Letter to CODA: Dr. Tanguay reviewed for the Council correspondence dated May 1, 2023, to the Commission on Dental Accreditation submitted by 19 state dental associations regarding faculty-to-student ratios cited in the Accreditation Standards for Dental Assisting Education Programs. No action was requested of the Council and the letter was shared as a point of information. The letter was the most recent in a series of communications between CODA and the state associations. The Council learned earlier in the meeting during the CODA report that an update on the actions of the Ad Hoc committee formed to study the

faculty-to-student ratios will be provided during the CODA's summer meeting in August 2023.

Chair and Vice-chair Election:

Action: The Council elected Dr. Najia Usman to serve as chair and Dr. Jason A. Tanguay to serve as vice chair for 2023-2024.

Adjournment: 11:52 AM Tuesday, June 20, 2023.

Appendices

Appendix 1: Roadmap for the Dental Admission Test

Appendix 2: DAT Test Constructors Considered for Reapproval

Appendix 3: ADAT Test Constructors Considered for Reapproval

Appendix 4: ATDH Test Constructors Considered for Reapproval

Appendix 5: DAT and ADAT Test Constructors Considered for Approval

Appendix 6: Fairness and Sensitivity Reviewers Considered for Approval

Appendix 7: Proposed Revisions to the Accreditation Standards for Advanced Dental Education Programs in Dental Public Health

Appendix 8: Proposed Revisions to the Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain

Appendix 9: ADA Policy Statement: The Use of Sedation and General Anesthesia for Dentists

Appendix 10: Proposed Amendment to the Guidelines for the Use of Sedation and General Anesthesia by Dentists

Appendix 11: Proposed Amendment to the Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students

Roadmap for the Dental Admission Test

Year	Activity
2022	**Scoring and Reporting** DATC and CDEL approve the future implementation of a new score reporting scale for the DAT ~~(see Appendix 7A).~~ ***COMPLETED*** **Examination Content** DTS implements the updates to the DAT Biology content specifications approved by the DATC and CDEL in 2019 and 2021. ***COMPLETED*** DATC and CDEL review and consider approval of a new fairness and sensitivity review process developed by DTS staff. ***COMPLETED*** ~~DATC and CDEL review and approve any recommended updates to Organic Chemistry content specifications that may result from the organic chemistry content validity survey administered by DTS in 2021.~~ **MOVED TO 2023** DATC and CDEL consider the potential inclusion of a physics section on the DAT. ***ONGOING*** **Communications** DTS staff notify ADEA of future changes to the DAT scoring model (3PL) and the DAT score reporting scale. ***COMPLETED*** DTS staff develop a plan to communicate upcoming changes to the DAT program to communities of interest (candidates, dental schools, ADEA, etc.). ***ONGOING***
2023	**Scoring and Reporting** DTS staff continue preparing to transition the DAT to 3PL model scoring. **Examination Content** DTS implements the updates to the DAT General Chemistry content specifications approved by the DATC and CDEL in 2021. DATC and CDEL review and approve any recommended updates to Organic Chemistry content specifications that may result from the organic chemistry content validity survey administered by DTS in 2021. DATC and CDEL consider the question as to the potential inclusion of a physics, hand skills, and/or ethics assessment within the DAT, using the results of a survey of dental deans to help inform their decisions. DTS ~~implements~~ begins piloting the new fairness and sensitivity review process ~~(assuming the process is~~ approved by DATC and CDEL in 2022~~)~~. **Communications** DTS conducts a webinar for communities of interest, to communicate upcoming changes to the DAT program.
2024	**Examination Content** DTS implements any updates to the DAT Organic Chemistry content specifications approved by the DATC and CDEL in ~~2022~~ 2023.

	Communications DTS conducts a webinar for communities of interest, to communicate upcoming changes to the DAT program.
2025	**Communications** DTS updates the DAT Candidate Guide to reflect the upcoming changes to the DAT scoring model and score reporting scale. **Scoring and Reporting** DTS implements 3PL model scoring and the new score reporting scale, and publishes score interpretation guidance documents for candidates and dental schools (e.g., concordance tables) ~~by~~ on March 1.

REAPPROVED DAT TEST CONSTRUCTORS

The following shows DAT test constructors who were reapproved for the 2024 DAT Test Constructor Pool.

TEST CONSTRUCTOR	SPECIALTY
Anita Austin, PhD	DAT General Biology
William Bell, DMD, MSD	DAT General Biology
Robert Blitz, MS, DDS	DAT General Biology
Fiona Britton, PhD	DAT General Biology
Matthew Cielinski, DMD, PhD	DAT General Biology
Larry Crouch, PhD	DAT General Biology
Ana Diaz-Arnold, DDS, MS	DAT General Biology
Tamer Goksel, DDS, MD	DAT General Biology
Violet Haraszthy, DDS, MS, PhD	DAT General Biology
Jennifer Metzler, PhD	DAT General Biology
Ali Nawshad, BDS, MDSc, PhD	DAT General Biology
Abu Nazmul-Hossain, DDS, PhD	DAT General Biology
Joshua Scheys, PhD	DAT General Biology
Cristine Smoczer, MD, PhD	DAT General Biology
Vani Takiar, DMD, MA	DAT General Biology
Sarah Tomlinson, DDS, RDH	DAT General Biology
Aaron Yancoskie, DDS	DAT General Biology
Wheeler Conover, PhD	DAT General Chemistry
Max Winshell Fontus, PhD	DAT General Chemistry
Michael Johnson, PhD	DAT General Chemistry
Alan Myers, PharmD, PhD	DAT General Chemistry
David Nowack, PhD	DAT General Chemistry
Tanea Reed, PhD	DAT General Chemistry
Elijah Schwartz, PhD, MS, MEd, BS, BA	DAT General Chemistry
Anne Vonderheide, PhD	DAT General Chemistry
Michael Wentzel, PhD	DAT General Chemistry
Emily Ciosek	DAT Medical Illustration CONSULTANT
Michael Gallagher	DAT Medical Illustration CONSULTANT
Lauren Kalinoski, MS, CMI	DAT Medical Illustration CONSULTANT
Elizabeth Moss	DAT Medical Illustration CONSULTANT
Elizabeth Paton	DAT Medical Illustration CONSULTANT
Julia Stack	DAT Medical Illustration CONSULTANT
Christina Wheeler	DAT Medical Illustration CONSULTANT
Max Winshell Fontus, PhD	DAT Organic Chemistry
Alan Myers, PharmD, PhD	DAT Organic Chemistry
Elijah Schwartz, PhD, MS, MEd, BS, BA	DAT Organic Chemistry
Jay Wackerly, PhD	DAT Organic Chemistry
Michael Wentzel, PhD	DAT Organic Chemistry

Sarah Zingales, PhD	DAT Organic Chemistry
Gokarna Aryal, PhD	DAT Quantitative Reasoning (QRT)
Anita Austin, PhD	DAT Quantitative Reasoning (QRT)
Holly Gaff, PhD	DAT Quantitative Reasoning (QRT)
Hem Joshi, PhD	DAT Quantitative Reasoning (QRT)
Nicole Putnam, PhD	DAT Quantitative Reasoning (QRT)
Elijah Schwartz, PhD, MS, MEd, BS, BA	DAT Quantitative Reasoning (QRT)
Tess St. John, MS	DAT Quantitative Reasoning (QRT)
Michael Wentzel, PhD	DAT Quantitative Reasoning (QRT)
Anita Austin, PhD	DAT Reading Comprehension
Wheeler Conover, Ph. D.	DAT Reading Comprehension
Gerald Davis, DDS	DAT Reading Comprehension
Deborah Franklin, DDS, MA	DAT Reading Comprehension
Michael Johnson, PhD	DAT Reading Comprehension
Sarah Lowman, DDS, MPH	DAT Reading Comprehension
Angela Monson, PhD, RDH	DAT Reading Comprehension
Dawn Nieman, BS, MS	DAT Reading Comprehension
Joan Ostapenko, RDH, BS, MEd	DAT Reading Comprehension
Robert Pastor, PhD, MS	DAT Reading Comprehension
Seena Patel, DMD, MPH	DAT Reading Comprehension
Gail Williamson, AS, BS, MS	DAT Reading Comprehension
James Clare, DDS	DAT Unassigned

REAPPROVED ADAT TEST CONSTRUCTORS

The following shows the ADAT test constructors who were reapproved for the 2024 ADAT Test Constructor Pool.

TEST CONSTRUCTOR	SPECIALTY
Homayon Asadi, DDS	ADAT Anatomic Sciences
Laura Barritt, PhD	ADAT Anatomic Sciences
John Dmytryk, DMD, PhD	ADAT Anatomic Sciences
Anita Joy-Thomas, BDS, PhD	ADAT Anatomic Sciences
Lisa Lee, PhD	ADAT Anatomic Sciences
Haley Nation, PhD	ADAT Anatomic Sciences
Ali Nawshad, BDS, MDSc, PhD	ADAT Anatomic Sciences
Scott Pelok, DDS, MS, FAGD	ADAT Anatomic Sciences
Shayla Yoachim, PhD	ADAT Anatomic Sciences
Larry Crouch, PhD	ADAT Biochemistry-Physiology
Ali Nawshad, BDS, MDSc, PhD	ADAT Biochemistry-Physiology
Todd Nolan, PhD	ADAT Biochemistry-Physiology
Thomas Oates, DMD, PhD	ADAT Biochemistry-Physiology
Joshua Scheys, PhD	ADAT Biochemistry-Physiology
Berry Stahl, DMD	ADAT Biochemistry-Physiology
Tim Whittingham, BS, MBA, PhD	ADAT Biochemistry-Physiology
Aous Abdulmajeed, DDS, PhD	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Namita Khandelwal, BDS, MS	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Sarah Lowman, DDS, MPH	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Thomas Oates, DMD, PhD	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Priyanshi Ritwik, BDS, MS	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Keerthana Satheesh, DDS, MS	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Naama Sleiman, MS, PhD	ADAT Data, Research Interpretation, And Evidence-Based Dentistry (DRIEBD)
Harmeet Chiang, BDS, MS	ADAT Dental Anatomy and Occlusion (DAO)
Matthew Cielinski, DMD, PhD	ADAT Dental Anatomy and Occlusion (DAO)
Edward Friedman, DDS	ADAT Dental Anatomy and Occlusion (DAO)
Robert Keim, DDS, EdD	ADAT Dental Anatomy and Occlusion (DAO)
Sang Lee, DMD, MMSc	ADAT Dental Anatomy and Occlusion (DAO)
Scott Pelok, DDS, MS, FAGD	ADAT Dental Anatomy and Occlusion (DAO)
Prajakta Shreeram Kulkarni, BDS, MS, MSD	ADAT Dental Materials
Keith Boyer, DDS	ADAT Endodontics

Bruno Cavalcanti, DDS, PhD	ADAT Endodontics
Natasha Flake, DDS, PhD, MSD	ADAT Endodontics
Johnah Galicia, DMD, MS, PhD	ADAT Endodontics
Gerald Glickman, DDS, MS, MBA, JD	ADAT Endodontics
Takashi Komabayashi, DDS, MDS, PhD	ADAT Endodontics
Marc Levitan, BA, DDS	ADAT Endodontics
Sanjay Patel, DDS	ADAT Endodontics
Fengming Wang, DDS, PhD	ADAT Endodontics
Pierre Wohlgemuth, DDS	ADAT Endodontics
Homayon Asadi, DDS	ADAT General Dentist
Krithika Baskaran, DDS	ADAT General Dentist
Sue Chhay, DDS	ADAT General Dentist
Matthew Cielinski, DMD, PhD	ADAT General Dentist
Naomi Dalton-Sajadi, DDS	ADAT General Dentist
Gerald Davis, DDS	ADAT General Dentist
Debra Ferraiolo, DMD	ADAT General Dentist
Edward Friedman, DDS	ADAT General Dentist
Khushbu Gopalakrishnan, DDS	ADAT General Dentist
Ashley Harrison, DDS	ADAT General Dentist
Terry Hoover, DDS	ADAT General Dentist
Narpat Jain, DMD	ADAT General Dentist
Anita Joy-Thomas, BDS, PhD	ADAT General Dentist
Amir Kazim, DDS	ADAT General Dentist
Namita Khandelwal, BDS, MS	ADAT General Dentist
Bill Leavitt, DDS, MPA	ADAT General Dentist
Huan Lu, DDS, PhD	ADAT General Dentist
Arpit Nirkhiwale, BDS, MS, FICOI	ADAT General Dentist
Marc Ottenga, DDS	ADAT General Dentist
Scott Pelok, DDS, MS, FAGD	ADAT General Dentist
Robert Rada, DDS	ADAT General Dentist
Shravan Kumar Renapurkar, DMD, FACS	ADAT General Dentist
Nancy Rosenthal, DDS	ADAT General Dentist
Andrew Sicklick, DDS	ADAT General Dentist
J. Sill, DMD	ADAT General Dentist
Silvia Spivakovsky, DDS	ADAT General Dentist
Berry Stahl, DMD	ADAT General Dentist
Stephen Sterlitz, DDS	ADAT General Dentist
Jaisri Thoppay, DDS	ADAT General Dentist
Kevin Wall, DMD	ADAT General Dentist
Ben Warner, MS, DDS, MD	ADAT General Dentist
Pierre Wohlgemuth, DDS	ADAT General Dentist
Krithika Baskaran, DDS	ADAT General Practitioner with Experience in Preparing Educational or Licensure Examinations
Babak Baban, PhD	ADAT Microbiology-Pathology

Gerald Glickman, DDS, MS, MBA, JD	ADAT Microbiology-Pathology
Violet Haraszthy, DDS, MS, PhD	ADAT Microbiology-Pathology
R. Hoffman, DMD, PhD	ADAT Microbiology-Pathology
Hassan Ismail, DDS	ADAT Microbiology-Pathology
Robert Kelsch, DMD	ADAT Microbiology-Pathology
Peter Loomer, BSc, DDS, PhD, MRCD	ADAT Microbiology-Pathology
Yahuan Lou, PhD	ADAT Microbiology-Pathology
Abu Nazmul-Hossain, DDS, PhD	ADAT Microbiology-Pathology
Scott Peters, DDS	ADAT Microbiology-Pathology
Nasser Said-Al-Naief, DDS, MS	ADAT Microbiology-Pathology
Aaron Yancoskie, DDS	ADAT Microbiology-Pathology
J. Sill, DMD	ADAT Operative Dentistry
Livia Andalo Tenuta, DDS, MSc, PhD	ADAT Operative/Restorative Dentistry
Homayon Asadi, DDS	ADAT Operative/Restorative Dentistry
Edward Friedman, DDS	ADAT Operative/Restorative Dentistry
Ashley Harrison, DDS	ADAT Operative/Restorative Dentistry
Terry Hoover, DDS	ADAT Operative/Restorative Dentistry
Narpat Jain, DMD	ADAT Operative/Restorative Dentistry
Rahen Kakadia, DDS	ADAT Operative/Restorative Dentistry
Huan Lu, DDS, PhD	ADAT Operative/Restorative Dentistry
Scott Pelok, DDS, MS, FAGD	ADAT Operative/Restorative Dentistry
J. Sill, DMD	ADAT Operative/Restorative Dentistry
Berry Stahl, DMD	ADAT Operative/Restorative Dentistry
Stephen Sterlitz, DDS	ADAT Operative/Restorative Dentistry
Tamer Goksel, DDS, MD	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Alia Koch, DDS, MD	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Seena Patel, DMD, MPH	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
John Reed, DDS	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Berry Stahl, DMD	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Timothy Woernley, DDS	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Homayon Asadi, DDS	ADAT Oral Diagnosis
Matthew Cielinski, DMD, PhD	ADAT Oral Diagnosis
Theodora Danciu, DMD, DMSc	ADAT Oral Diagnosis
Debra Ferraiolo, DMD	ADAT Oral Diagnosis
Terry Hoover, DDS	ADAT Oral Diagnosis
Narpat Jain, DMD	ADAT Oral Diagnosis
Robert Kelsch, DMD	ADAT Oral Diagnosis
Seena Patel, DMD, MPH	ADAT Oral Diagnosis
Scott Peters, DDS	ADAT Oral Diagnosis
Keerthana Satheesh, DDS, MS	ADAT Oral Diagnosis
Jaisri Thoppay, DDS	ADAT Oral Diagnosis
Ben Warner, MS, DDS, MD	ADAT Oral Diagnosis
Aaron Yancoskie, DDS	ADAT Oral Diagnosis

Theodora Danciu, DMD, DMSc	ADAT Oral Pathology
Tanya Gibson, DDS	ADAT Oral Pathology
Robert Kelsch, DMD	ADAT Oral Pathology
Seena Patel, DMD, MPH	ADAT Oral Pathology
Scott Peters, DDS	ADAT Oral Pathology
Priyanshi Ritwik, BDS, MS	ADAT Oral Pathology
Nasser Said-Al-Naief, DDS, MS	ADAT Oral Pathology
Aaron Yancoskie, DDS	ADAT Oral Pathology
Timothy Woernley, DDS	ADAT Oral Surgeon
Tanya Al-Talib, DDS, MS	ADAT Orthodontics
Wanda Claro, DDS, MS	ADAT Orthodontics
Robert Keim, DDS, EdD	ADAT Orthodontics
Shiva Khatami, DDS	ADAT Orthodontics
Jae Park, DMD, MSD, MS, PhD	ADAT Orthodontics
Matthew Cielinski, DMD, PhD	ADAT Patient Management
Steven Hackmyer, DDS	ADAT Patient Management
Narpat Jain, DMD	ADAT Patient Management
Amir Kazim, DDS	ADAT Patient Management
Jacinta Leavell, PhD, MS	ADAT Patient Management
Bill Leavitt, DDS, MPA	ADAT Patient Management
Sarah Lowman, DDS, MPH	ADAT Patient Management
Seena Patel, DMD, MPH	ADAT Patient Management
Harjit Sehgal, BDS, MS	ADAT Patient Management
Jaisri Thoppay, DDS	ADAT Patient Management
Ben Warner, MS, DDS, MD	ADAT Patient Management
Dorothy Cataldo, DMD	ADAT Pediatric Dentistry
Daniel Claman, DDS	ADAT Pediatric Dentistry
Lisa DeLucia Bruno, DDS	ADAT Pediatric Dentistry
Steven Hackmyer, DDS	ADAT Pediatric Dentistry
Bina Katechia, DDS MSc	ADAT Pediatric Dentistry
Priyanshi Ritwik, BDS, MS	ADAT Pediatric Dentistry
Thomas Tanbonliong, DDS	ADAT Pediatric Dentistry
Robert Bitter, DMD	ADAT Periodontics
John Dmytryk, DMD, PhD	ADAT Periodontics
Maria Elkins, DDS, MSD	ADAT Periodontics
Sridhar Eswaran, BDS, MS, MSD	ADAT Periodontics
Miryam Garcia, DDS, MS	ADAT Periodontics
Violet Haraszthy, DDS, MS, PhD	ADAT Periodontics
David Kim, DDS, DMSc	ADAT Periodontics
Melissa Lang, DDS, MS	ADAT Periodontics
Peter Loomer, BSc, DDS, PhD, MRCD	ADAT Periodontics
Thomas Oates, DMD, PhD	ADAT Periodontics
Keerthana Satheesh, DDS, MS	ADAT Periodontics

Harjit Sehgal, BDS, MS	ADAT Periodontics
Daniel Shin, DDS, MSD	ADAT Periodontics
Bryant Cornelius, DDS, MBA, MPH	ADAT Pharmacology
Debra Ferraiolo, DMD	ADAT Pharmacology
Alan Myers, PharmD, PhD	ADAT Pharmacology
Silvia Spivakovsky, DDS	ADAT Pharmacology
Berry Stahl, DMD	ADAT Pharmacology
Latasha Vick, DDS, MHS, PA	ADAT Pharmacology
Ana Diaz-Arnold, DDS, MS	ADAT Prosthodontics
Violet Haraszthy, DDS, MS, PhD	ADAT Prosthodontics
Jitendra Jethwani, DDS, MDS, PGDHHM,	ADAT Prosthodontics
Berna Saglik, DDS,MS	ADAT Prosthodontics
Prajakta Shreeram Kulkarni, BDS, MS, MSD	ADAT Prosthodontics (Fixed)
Sang Lee, DMD, MMSc	ADAT Prosthodontics (Fixed)
Arpit Nirkhiwale, BDS, MS, FICOI	ADAT Prosthodontics (Fixed)
Prajakta Shreeram Kulkarni, BDS, MS, MSD	ADAT Prosthodontics (Removable)
Sang Lee, DMD, MMSc	ADAT Prosthodontics (Removable)
Arpit Nirkhiwale, BDS, MS, FICOI	ADAT Prosthodontics (Removable)
Debra Ferraiolo, DMD	ADAT Radiology
Aniket Jadhav, DDS, MDS	ADAT Radiology
Vandana Kumar, DDS, MDS, MS	ADAT Radiology

REAPPROVED ATDH TEST CONSTRUCTORS

The following shows the ATDH test constructors who were reapproved for the 2024 ATDH Test Constructor Pool.

FULL NAME	Specialty
Anita Austin, PhD	ATDH General Biology
Emily Boge, EdD, RDH, CDA	ATDH General Biology
Fiona Britton, PhD	ATDH General Biology
Larry Crouch, PhD	ATDH General Biology
Jessica Kiser, EdD, MS, RDH	ATDH General Biology
Jennifer Metzler, PhD	ATDH General Biology
Joshua Scheys, PhD	ATDH General Biology
Elizabeth Tronolone, BSDH, MOL	ATDH General Biology
Maureen Tubbiola, M.S., Ph.D.	ATDH General Biology
Michael Johnson, PhD	ATDH General Chemistry
Alan Myers, PharmD, PhD	ATDH General Chemistry
David Nowack, PhD	ATDH General Chemistry
Tanea Reed, PhD	ATDH General Chemistry
Anne Vonderheide, PhD	ATDH General Chemistry
Linghao Zhong, PhD	ATDH General Chemistry
Joanna Campbell, RDH, MA, MA	ATDH Language Usage
Jason Ceynar	ATDH Language Usage
Edward Covey, PhD	ATDH Language Usage
Mike Kelly, PhD	ATDH Language Usage
Jessica Kiser, EdD, MS, RDH	ATDH Language Usage
Hannah Medrano, RDH	ATDH Language Usage
Robert Pastor, PhD, MS	ATDH Language Usage
Gail Williamson, AS, BS, MS	ATDH Language Usage
Lauren Kalinoski, MS, CMI	ATDH Medical Illustration CONSULTANT
Julia Stack	ATDH Medical Illustration CONSULTANT
Emily Boge, EdD, RDH, CDA	ATDH Program Director
Jessica Kiser, EdD, MS, RDH	ATDH Program Director
Elizabeth Tronolone, BSDH, MOL	ATDH Program Director
Gokarna Aryal, PhD	ATDH Quantitative Reasoning (QRT)
Holly Gaff, PhD	ATDH Quantitative Reasoning (QRT)
Hem Joshi, PhD	ATDH Quantitative Reasoning (QRT)
Nicole Putnam, PhD	ATDH Quantitative Reasoning (QRT)
Tess St. John, MS	ATDH Quantitative Reasoning (QRT)
Joanna Campbell, RDH, MA, MA	ATDH Reading Comprehension
Jason Ceynar	ATDH Reading Comprehension
Edward Covey, PhD	ATDH Reading Comprehension
Mike Kelly, PhD	ATDH Reading Comprehension

Hannah Medrano, RDH	ATDH Reading Comprehension
Dawn Nieman, BS, MS	ATDH Reading Comprehension
Joan Ostapenko, RDH, BS, MEd	ATDH Reading Comprehension
Robert Pastor, PhD, MS	ATDH Reading Comprehension
Gail Williamson, AS, BS, MS	ATDH Reading Comprehension

Approved DAT and ADAT Test Constructors

The following shows current DAT and ADAT test constructors approved fore the 2024 Test Constructor Pool.

DAT Recommended Test Constructors

Full Name	Specialty
Maureen Tubbiola	DAT General Biology
Brandon Tutkowski	DAT Organic Chemistry
Shakena West	DAT Organic Chemistry
Linghao Zhong	DAT General Chemistry

ADAT Recommended Test Constructors

Full Name	Specialty
Shreekrishna Akilesh	ADAT Pediatric Dentistry
Elias Mikael Chatah	ADAT Pharmacology
Nadia Chugal	ADAT Endodontics
Brian Ford	ADAT Oral and Maxillofacial Surgery/Pain Control (OMSPC)
Sharukh Khajotia	ADAT Dental Materials
Mahmood Mozaffari	ADAT Pharmacology
Laurita Siu	ADAT Pediatric Dentistry
Brandon Tutkowski	ADAT Biochemistry-Physiology
Hai Zhang	ADAT Prosthodontics (Removable)

Approved Fairness and Sensitivity Reviewers

The following individuals were approved as Fairness and Sensitivity Reviewers as part of the pilot process beginning in 2023 or as soon as logistically feasible.

Full Name	Specialty
Sarah Allen	Fairness and Sensitivity
Gina Chann	Fairness and Sensitivity
Sharon Colvin	Fairness and Sensitivity
Mary Sandy	Fairness and Sensitivity
Dawn Smith	Fairness and Sensitivity
LaQuia Vinson	Fairness and Sensitivity

Commission on Dental Accreditation

At its Winter 2023 meeting, the Commission directed that the proposed revisions to Accreditation Standards for Advanced Dental Education Programs in Dental Public Health be distributed to the appropriate communities of interest for review and comment, with comment due December 1, 2023, for review at the Winter 2024 Commission meeting.

Written comments will only be accepted through the Commission's Electronic Comment Submission Portal at this link:

https://surveys.ada.org/jfe/form/SV_4MfyZCcKnxCCHTD

Proposed Revisions to Standards Following Validity and Reliability Study
Additions are Underlined
~~Strikethroughs~~ indicate Deletions

Accreditation Standards for Advanced Dental Education Programs in Dental Public Health

Accreditation Standards for Advanced Dental Education Programs in Dental Public Health

Commission on Dental Accreditation
211 East Chicago Avenue
Chicago, Illinois 60611-2678
(312) 440-4653
https://coda.ada.org/

Accreditation Standards for Advanced Dental Education Programs in Dental Public Health

Document Revision History

Date	Item	Action
~~August 3, 2018~~	~~Accreditation Standards for Advanced Specialty Education Programs in Dental Public Health~~	~~Adopted and Implemented~~
~~August 3, 2018~~	~~Revised Terminology Related to Advanced Education Programs~~	~~Adopted~~
~~January 1, 2019~~	~~Revised Terminology Related to Advanced Education Programs~~	~~Implemented~~
~~August 2, 2019~~	~~Revised Definition of "Should"~~	~~Adopted~~
~~January 31, 2020~~	~~Revised Definition of "Should"~~	~~Implemented~~
~~August 7, 2020~~	~~Revised intent statement for Standard 4-1~~	~~Adopted and Implemented~~
~~August 6, 2021~~	~~Revised Mission Statement~~	~~Adopted~~
~~January 1, 2022~~	~~Revised Mission Statement~~	~~Implemented~~
~~February 9, 2023~~	~~Revised Standard 2-4~~	~~Adopted~~
~~July 1, 2023~~	~~Revised Standard 2-4~~	~~Implemented~~

Table of Contents

Mission Statement of the Commission on Dental Accreditation

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Commission on Dental Accreditation
Adopted: August 5, 2016; Revised August 6, 2021

ACCREDITATION STATUS DEFINITIONS

1. PROGRAMS THAT ARE FULLY OPERATIONAL:

Approval *(without reporting requirements*): An accreditation classification granted to an educational program indicating that the program achieves or exceeds the basic requirements for accreditation.

Approval *(with reporting requirements*): An accreditation classification granted to an educational program indicating that specific deficiencies or weaknesses exist in one or more areas of the program. Evidence of compliance with the cited standards or policies must be demonstrated within a timeframe not to exceed eighteen (18) months if the program is between one and two years in length or two years if the program is at least two years in length. If the deficiencies are not corrected within the specified time period, accreditation will be withdrawn, unless the Commission extends the period for achieving compliance for good cause. Identification of new deficiencies during the reporting time period will not result in a modification of the specified deadline for compliance with prior deficiencies.

Circumstances under which an extension for good cause would be granted include, but are not limited to:

- sudden changes in institutional commitment;
- natural disaster which affects affiliated agreements between institutions; faculty support; or facilities;
- changes in institutional accreditation;
- interruption of an educational program due to unforeseen circumstances that take faculty, administrators or students away from the program.

Revised: 8/17; 2/16; 5/12; 1/99; Reaffirmed: 8/13; 8/10, 7/05; Adopted: 1/98

2. PROGRAMS THAT ARE NOT FULLY OPERATIONAL:

A program which has not enrolled and graduated at least one class of students/residents and does not have students/residents enrolled in each year of the program is defined by the Commission as not fully operational. The accreditation classification granted by the Commission on Dental Accreditation to programs which are not fully operational is "initial accreditation." When initial accreditation status is granted to a developing education program, it is in effect through the projected enrollment date. However, if enrollment of the first class is delayed for two consecutive years following the projected enrollment date, the program's accreditation will be discontinued, and the institution must reapply for initial accreditation and update pertinent information on program development. Following this, the Commission will reconsider granting initial accreditation status.

Initial Accreditation is the accreditation classification granted to any dental, advanced dental or allied dental education program which is not yet fully operational. This accreditation classification provides evidence to educational institutions, licensing bodies, government or other granting agencies that, at the time of initial evaluation(s), the developing education program has the potential for meeting the standards set forth in the requirements for an accredited educational program for the specific occupational area. The classification "initial accreditation" is granted based upon one or

more site evaluation visit(s).

Revised: 7/08; Reaffirmed: 8/13; 8/10; Adopted: 2/02

Preface

Maintaining and improving the quality of advanced dental education programs is a primary aim of the Commission on Dental Accreditation. The Commission is recognized by the public, the profession, and the United States Department of Education as the specialized accrediting agency in dentistry.

Accreditation of advanced dental education programs is a voluntary effort of all parties involved. The process of accreditation assures students/residents, the dental profession, specialty boards and the public that accredited training programs are in compliance with published standards.

Accreditation is extended to institutions offering acceptable programs in the following discipline of advanced dental education: dental public health, endodontics, oral and maxillofacial pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics and dentofacial orthopedics, pediatric dentistry, periodontics, prosthodontics. Advanced education in general dentistry, general practice dentistry, dental anesthesiology, oral medicine, and orofacial pain. Program accreditation will be withdrawn when the training program no longer conforms to the standards as specified in this document, when all first-year positions remain vacant for a period of two years or when a program fails to respond to requests for program information. Exceptions for non-enrollment may be made by the Commission for programs with "approval without reporting requirements" status upon receipt of a formal request from an institution stating reasons why the status of the program should not be withdrawn.

Advanced dental education may be offered on either a certificate-only or certificate and degree-granting basis.

Accreditation actions by the Commission on Dental Accreditation are based upon information gained through written submissions by program directors and evaluations made on site by assigned site visitors. The Commission has established review committees to review site visit and progress reports and make recommendations to the Commission. Review committees are composed of representatives nominated by dental organizations and nationally accepted certifying boards. The Commission has the ultimate responsibility for determining a program's accreditation status. The Commission is also responsible for adjudication of appeals of adverse decisions and has established policies and procedures for appeal. A copy of policies and procedures may be obtained from the Director, Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, Illinois 60611.

This document constitutes the standards by which the Commission on Dental Accreditation and its site visitors will evaluate advanced dental education programs in each discipline for accreditation purposes. The Commission on Dental Accreditation establishes general standards which are common to all disciplines of advanced dental education, institution and programs. Each discipline develops discipline-specific standards for education programs in its discipline. The general and discipline-specific standards, subsequent to approval by the Commission on Dental Accreditation, set forth the standards for the education content, instructional activities, patient care responsibilities, supervision and facilities that should be provided by programs in the particular discipline.

As a learned profession entrusted by the public to provide for its oral health and general well-being, the profession provides care without regard to race, color, religion, national origin, age, disability, sexual orientation, status with respect to public assistance or marital status.

The profession has a duty to consider patients' preferences, and their social, economic and emotional circumstances when providing care, as well as to attend to patients whose medical, physical and psychological or social situation make it necessary to modify normal dental routines in order to provide dental treatment. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairments, complex medical problems, significant physical limitations, and the vulnerable elderly. The Standards reconfirm and emphasize the importance of educational processes and goals for comprehensive patient care and encourage patient-centered approaches in teaching, research and oral health care delivery.

The profession adheres to ethical principles of honesty, compassion, kindness, respect, integrity, fairness and charity, as exemplified in the ADA Principles of Ethics and Code of Professional Conduct and the ADEA Statement on Professionalism in Dental Education.

General standards are identified by the use of a single numerical listing (e.g., 1). Discipline-specific standards are identified by the use of multiple numerical listings (e.g. 1-1, 1-1.2, 1-2).

In October 1997 and revised in 2016, the American Association of Public Health Dentistry approved "Competency Statements for Dental Public Health". This document outlines the competencies expected of a public health dentist. The term competency has been used to denote the knowledge, skills, and values necessary to function as a specialist in dental public health. It is expected that the specialist will perform these skills at the competent level.

Definitions of Terms Used in Dental Public Health Accreditation Standards

The terms used in this document (i.e. shall, **must**, should, can and may) were selected carefully and indicate the relative weight that the Commission attaches to each statement. The definitions of these words used in the Standards are as follows:

Must or Shall: Indicates an imperative need and/or duty; an essential or indispensable item; mandatory.

Intent: Intent statements are presented to provide clarification to the advanced dental education programs in dental public health in the application of and in connection with compliance with the Accreditation Standards for Advanced Dental Education Programs in Dental Public Health. The statements of intent set forth some of the reasons and purposes for the particular Standards. As such, these statements are not exclusive or exhaustive. Other purposes may apply.

Examples of evidence to demonstrate compliance include: Desirable condition, practice or documentation indicating the freedom or liberty to follow a suggested alternative.

Should: Indicates a method to achieve the standard; highly desirable, but not mandatory.

May or Could: Indicates freedom or liberty to follow a suggested alternative.

Graduates of discipline-specific advanced dental education programs provide unique services to the public. While there is some commonality with services provided by specialists and general dentists, as well as commonalities among the specialties, the educational standards developed to prepare graduates of discipline-specific advanced dental education programs for independent practice should not be viewed as a continuum from general dentistry. Each discipline defines the educational experience best suited to prepare its graduates to provide that unique discipline service.

Competencies: Statements in the advanced dental education standards describing the knowledge, skills and values expected of graduates of discipline-specific advanced dental education programs.

Competent: Having the knowledge, skills and values required of the graduates to begin independent, unsupervised discipline-specific practice.

In-depth: Characterized by thorough knowledge of concepts and theories for the purpose of critical analysis and synthesis.

Understanding: Knowledge and recognition of the principles and procedures involved in a particular concept or activity.

Other Terms:

Institution (or organizational unit of an institution): a dental, medical or public health school, patient care facility, or other entity that engages in advanced dental education.

Sponsoring institution: primary responsibility for advanced dental education programs.

Affiliated institution: support responsibility for advanced dental education programs.

Advanced dental education student/resident: a student/resident enrolled in an accredited advanced dental education program.

A degree-granting program is a planned sequence of advanced courses leading to a master's or doctoral degree granted by a recognized and accredited educational institution.

A certificate program is a planned sequence of advanced courses that leads to a certificate of completion in an advanced dental education program recognized by the American Dental Association.

Student/Resident: The individual enrolled in an accredited advanced dental education program.

International Dental School: A dental school located outside the United States and Canada.

Evidence-based healthcare/dentistry: Evidence-based healthcare/dentistry is an approach to ~~oral~~ health care that requires the judicious integration of systematic assessments of ~~clinically~~ relevant scientific evidence~~., relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences.~~

Formative Assessment*: guiding future learning, providing reassurance, promoting reflection, and shaping values; providing benchmarks to orient the learner who is approaching a relatively unstructured body of knowledge; and reinforcing students' intrinsic motivation to learn and inspire them to set higher standards for themselves.

Summative Assessment*: making an overall judgment about competence, fitness to practice, or qualification for advancement to higher levels of responsibility; and providing professional self-regulation and accountability.

Epstein, R. M. (2007). Assessment in Medical Education. The New England Journal of Medicine, 387-96.

STANDARD 1 - INSTITUTIONAL COMMITMENT/PROGRAM EFFECTIVENESS

The program **must** develop clearly stated goals and objectives appropriate to advanced dental education, addressing education, patient care, research and service. Planning for, evaluation of and improvement of educational quality for the program **must** be broad-based, systematic, continuous and designed to promote achievement of program goals related to education, patient care, research and service.

The program **must** document its effectiveness using a formal and ongoing outcomes assessment process to include measures of advanced dental education student/resident achievement.

***Intent*:** *The Commission on Dental Accreditation expects each program to define its own goals and objectives for preparing individuals for the practice of dental public health and that one of the program goals is to comprehensively prepare competent individuals to initially practice dental public health. The outcomes process includes steps to: (a) develop clear, measurable goals and objectives consistent with the program's purpose/mission; (b) develop procedures for evaluating the extent to which the goals and objectives are met; (c) collect and maintain data in an ongoing and systematic manner; (d) analyze the data collected and share the results with appropriate audiences; (e) identify and implement corrective actions to strengthen the program; and (f)review the assessment plan, revise as appropriate, and continue the cyclical process.*

The financial resources **must** be sufficient to support the program's stated goals and objectives.

Intent: *The institution should have the financial resources required to develop and sustain the program on a continuing basis. The program should have the ability to employ an adequate number of full-time faculty, purchase and maintain equipment, procure supplies, reference material and teaching aids as reflected in annual budget appropriations. Financial allocations should ensure that the program will be in a competitive position to recruit and retain qualified faculty.*
Annual appropriations should provide for innovations and changes necessary to reflect current concepts of education in the advanced dental education discipline. The Commission will assess the adequacy of financial support on the basis of current appropriations and the stability of sources of funding for the program.

The sponsoring institution **must** ensure that support from entities outside of the institution does not compromise the teaching, clinical and research components of the program.

<u>Examples of evidence to demonstrate compliance may include:</u>

- Written agreement(s)
- Contract(s)/Agreement(s) between the institution/program and sponsor(s) related to facilities, funding, and faculty financial support

Advanced dental education programs **must** be sponsored by institutions, which are properly chartered and licensed to operate and offer instruction leading to degrees, diplomas or certificates with recognized education validity. Hospitals that sponsor advanced dental education programs **must** be accredited by an accreditation organization recognized by the Centers for Medicare and Medicaid Services (CMS). Educational institutions that sponsor advanced dental education programs **must** be accredited by an agency recognized by the United States Department of Education. The bylaws, rules and regulations of hospitals that sponsor or provide a substantial portion of advanced dental education programs **must** ensure that dentists are eligible for medical staff membership and privileges including the right to vote, hold office, serve on medical staff committees and ~~admit,~~ manage ~~and discharge~~ patients.

United States military programs not sponsored or co-sponsored by military medical treatment facilities, United States-based educational institutions, hospitals or health care organizations accredited by an agency recognized by the United States Department of Education or accredited by an accreditation organization recognized by the Centers for Medicare and Medicaid Services (CMS) **must** demonstrate successful achievement of Service-specific organizational inspection criteria.

The authority and final responsibility for curriculum development and approval, student/resident selection, faculty selection and administrative matters **must** rest within the sponsoring institution.

The institution/program **must** have a formal system of quality assurance for programs that provide patient care.

The position of the program in the administrative structure **must** be consistent with that of other parallel programs within the institution and the program director **must** have the authority, responsibility, and privileges necessary to manage the program.

1-1 Dental Public Health programs **must** be sponsored by federal, state or local public health agencies, dental schools, health facilities, schools of public health, or other institutions of higher learning.

USE OF SITES WHERE EDUCATIONAL ACTIVITY OCCURS

The primary sponsor of the educational program **must** accept full responsibility for the quality of education provided in all sites where educational activity occurs.

1-2 All arrangements with sites where educational activity occurs, not owned by the sponsoring institution, **must** be formalized by means of current written agreements that clearly define the roles and responsibilities of the parties involved. The following items **must** be covered in such inter-institutional agreements:

a. Designation of a single program director;
b. The teaching staff;
c. The educational objectives of the program;
d. The period of assignment of students/residents; and
e. Each institution's financial commitment.

Intent: *The items that are covered in inter-institutional agreements do not have to be contained in a single document. They may be included in multiple agreements, both formal and informal (e.g., addenda and letters of mutual understanding).*

1-3 For each site where educational activity occurs, there **must** be ~~an appropriate on-site supervisor who is~~ supervision by an individual qualified by education in the curriculum areas for which he/she is responsible.

1-4 The selection of educational activity sites **must** be based on ~~careful~~ documented assessment of the resources of the sponsoring institution, program objectives, student/resident needs and accreditation requirements.

1-5 The objectives of the assignments to each affiliated educational activity site **must** be identified and **must** be used in evaluating the effectiveness of assignments.

If the program utilizes educational activity sites for clinical experiences or didactic instruction, please review the Commission's Policy on Reporting and Approval of Sites Where Educational Activity Occurs in the Evaluation and Operational Policies and Procedures manual (EOPP).

STANDARD 2 - PROGRAM DIRECTOR AND TEACHING STAFF

The program **must** be administered by one director who is board certified in dental public health. ~~the respective advanced dental education discipline of the program. (All program directors appointed after January 1, 1997, who have not previously served as program directors, must be board certified.)~~

Intent: ~~*The director of an advanced dental education program is to be certified by a nationally accepted certifying board in the advanced dental education discipline.*~~ *Board certification is to be active. The board certification requirement of Standard 2 is also applicable to an interim/acting program director.* ~~*A program with a director who is not board certified but who has previous experience as an interim/acting program director in a Commission-accredited program prior to 1997 is not considered in compliance with Standard 2.*~~

Examples of evidence to demonstrate compliance may include:

~~For board certified directors: Copy of board certification certificate; l~~ Letter from board attesting to current/active board certification.

~~For non-board certified directors who served prior to January 1, 1997: Current CV identifying previous directorship in a Commission on Dental Accreditation or Commission on Dental Accreditation of Canada-accredited advanced dental education program in the respective discipline; letter from the previous employing institution verifying service.~~

The program director **must** be appointed to the sponsoring institution and have sufficient authority and time to achieve the educational goals of the program and assess the program's effectiveness in meeting its goals.

2-1 The program **must** be directed by a single individual who has at least a 40% appointment to the sponsoring institution and a commitment to teaching and supervision that is uncompromised by additional responsibilities.

Intent: *Other activities do not dilute a program director's ability to discharge his/her primary obligations to the educational program.*

Documentation of all program activities **must** be ensured by the program director and available for review.

2-2 In dental public health residency programs, there **must** be an advisory committee composed of individuals knowledgeable in the field of dental public health to assist the program director in the development, revision and evaluation of each student's/resident's residency curriculum plan, periodic assessment of each student's/resident's progress, final assessment of the degree of attainment of the plan's goals, as well as periodic review of the residency program itself.

2-3 While the needs of individual students/residents may vary, ~~appropriate~~ educationally qualified faculty or consultants **must** be available to support student/resident instruction and research.

2-4 All faculty, including those at major and minor educational activity sites, **must** be trained to a standard to ensure consistency in training and evaluation of students/residents that supports the goals and objectives of the program.

Intent: *Faculty training may consist of outcomes based on the use of evaluation forms, tools, metrics and/or minutes of faculty training sessions showing consistency across all sites.*

2-5 The program **must** show evidence of an ongoing faculty development process, for ~~full-time~~ program faculty.

Intent: *Ongoing faculty development is a requirement to improve teaching and learning, to foster curricular change, to enhance student retention and job satisfaction of faculty, and to maintain the vitality of academic dentistry as the wellspring of a learned profession.*

Examples of evidence to demonstrate compliance may include:

Participation in development activities related to teaching, learning, and assessment
Attendance at regional and national meetings that address contemporary issues in education
Mentored experiences for new faculty
Scholarly productivity
Presentations at regional and national meetings
Examples of curriculum innovation
Maintenance of existing and development of new and/or emerging clinical skills
Documented understanding of relevant aspects of teaching methodology
Curriculum design and development
Curriculum evaluation
Student/Resident assessment
Cultural Competency
Ability to work with students/residents of varying ages and backgrounds
Use of technology in didactic and clinical components of the curriculum

STANDARD 3 - FACILITIES AND RESOURCES

Institutional facilities and resources **must** be adequate to provide the educational experiences and opportunities required to fulfill the needs of the educational program as specified in these Standards. For program sites that participate in clinical care, ~~E~~equipment and supplies for use in managing medical emergencies **must** be readily accessible and functional.

***Intent**: The facilities and resources (e.g., support/secretarial staff, allied personnel and/or technical staff) should permit the attainment of program goals and objectives. To ensure health and safety for patients, students/residents, faculty and staff, the physical facilities and equipment should effectively accommodate the clinic and/or laboratory schedule.*

For program sites that participate in clinical care, ~~T~~the program **must** document its compliance with the institution's policy and applicable regulations of local, state and federal agencies, including but not limited to radiation hygiene and protection, ionizing radiation, hazardous materials, and bloodborne and infectious diseases. Policies **must** be provided to all students/residents, faculty and appropriate support staff and continuously monitored for compliance. Additionally, policies on bloodborne and infectious diseases **must** be made available to applicants for admission and patients.

***Intent**: The program may document compliance by including the applicable program policies. The program demonstrates how the policies are provided to the students/residents, faculty and appropriate support staff and who is responsible for monitoring compliance. Applicable policy states how it is made available to applicants for admission and patients should a request to review the policy be made.*

Students/Residents, faculty and appropriate support staff **must** be encouraged to be immunized against and/or tested for infectious diseases, such as SARS-COVID, influenza, mumps, measles, rubella and hepatitis B, prior to contact with patients and/or infectious objects or materials, in an effort to minimize the risk to patients and dental personnel.

***Intent**: The program should have written policy that encourages (e.g., delineates the advantages of) immunization of students/residents, faculty and appropriate support staff.*

All students/residents, faculty and support staff involved in the direct provision of patient care **must** be continuously recognized/certified in basic life support procedures, including cardiopulmonary resuscitation.

***Intent**: Continuously recognized/certified in basic life support procedures means the appropriate individuals are currently recognized/certified.*

The use of private office facilities as a means of providing clinical experiences in advanced dental education is only approved when the discipline has included language that defines the use of such facilities in its discipline-specific standards.

STANDARD 4 – CURRICULUM AND PROGRAM DURATION

The advanced dental education program **must** be designed to provide ~~special~~ knowledge and skills beyond the D.D.S. or D.M.D. training and be oriented to the accepted standards of the discipline's practice as set forth in specific standards contained in this document.

Intent: *The intent is to ensure that the didactic rigor and extent of clinical experience exceeds pre-doctoral, entry level dental training or continuing education requirements and the material and experience satisfies standards for the discipline.*

Advanced dental education programs **must** include instruction or learning experiences in evidence-based ~~practice~~ healthcare. Evidence-based ~~dentistry~~ healthcare is an approach that requires the judicious integration of systematic assessments of relevant scientific evidence that is used to make health policy, economic recommendations, and systems management decisions affecting populations. ~~to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences.~~

Advanced dental education programs **must** include instruction or learning experiences in evidence-based oral health practice that focuses on health promotion and disease prevention activities.

Intent: *To ensure students/residents receive instruction or other learning experiences that leads to an understanding of the similarities and differences with the application of evidence-based oral health practice between individuals and communities for preventing of oral diseases and promoting health.*

Examples of Evidence to demonstrate compliance may include:

- Formal instruction (a module/lecture materials or course syllabi) in evidence-based practice
- Didactic Program course syllabi, course content outlines, or lecture materials that integrate aspects of evidence-based practice
- Literature review seminar(s)
- Multidisciplinary Grand Rounds to illustrate evidence-based practice
- Projects/portfolios that include critical reviews of the literature using evidence-based practice principles (or "searching publication databases and appraisal of the evidence")
- Assignments that include publication database searches and literature appraisal for best evidence to answer patient-focused clinical questions.

The level of discipline-specific instruction in certificate and degree-granting programs **must** be comparable**.**

Intent: *The intent is to ensure that the students/residents of these programs receive the same educational requirements as set forth in these Standards.*

Documentation of all program activities **must** be ensured by the program director and available for review.

If an institution and/or program enrolls part-time students/residents, the institution/program **must** have guidelines regarding enrollment of part-time students/residents. Part-time students/residents **must** start and complete the program within a single institution, except when the program is discontinued. The director of an accredited program who enrolls students/residents on a part-time basis **must** ensure that: (1) the educational experiences, including the clinical experiences and responsibilities, are the same as required by full-time students/residents; and (2) there are an equivalent number of months spent in the program.

PROGRAM DURATION

4-1 A two-year dental public health program **must** encompass a minimum of two academic years in duration.

A one-year dental public health program **must** encompass a minimum of 12 months in duration.

Intent: *One-year dental public health programs require prior attainment of a Masters in Public Health (MPH) or comparable degree.*

INSTRUCTION IN ETHICS AND PROFESSIONALISM

4-~~1~~2 Graduates **must** receive instruction in and be able to apply the principles of ethical reasoning, ethical decision making and professional responsibility as they pertain to the academic environment, research, patient care, practice management, and programs to promote the oral health of individuals and communities.

Intent: *Graduates are expected to know how to draw on a range of resources such as professional codes, regulatory law, and ethical theories to guide judgment and action for issues that are complex, novel, ethically arguable, divisive, or of public concern. Graduates are expected to respect the culture, diversity, beliefs and values in the community.*

INSTRUCTION IN GENERAL PUBLIC HEALTH

4-~~2~~3 The program **must** provide instruction at the advanced level in the following:

a. Epidemiology;
b. Biostatistics;
c. Behavioral science;
d. Environmental health; and
e. Health care policy and management.

Intent: *Advanced level instruction is defined as a level higher than the baccalaureate*

level and/or predoctoral dental education level.

4-~~3~~4 Two-year dental public health programs **must** incorporate instruction specified in standard 4-~~2~~3.

4-~~4~~5 Directors of one-year programs **must** review each student's/resident's previous public health training and supplement it, where necessary, to ensure that instruction identified in Standard 4-~~2~~3 is covered.

Intent: *Individuals pursuing advanced education in dental public health require a foundation in the principles of general public health. For students/residents entering one-year dental public health programs, the principles of general public health normally will have been covered in the prerequisite MPH or comparable degree program.*

INSTRUCTION IN DENTAL PUBLIC HEALTH

4-~~5~~6 The program **must** provide instruction in the following competencies:

a. Manage oral health programs for population health;
b. Evaluate systems of care that impact oral health;
c. Demonstrate ethical decision-making in the practice of dental public health;
d. Design surveillance systems to measure oral health status and its determinants
e. Communicate on oral and public health issues;
f. Lead collaborations on oral and public health issues;
g. Advocate for public health policy, legislation, and regulations to protect and promote the public's oral health, and overall health;
h. Critically appraise evidence to address oral health issues for individuals and populations;
i. Conduct research to address oral and public health problems; and
j. Integrate the social determinants of health into dental public health practice.

Intent: *Recent data suggest that unmet treatment needs within the United States (US) population are increasing and that access to oral health care is limited for the most vulnerable of the US population. The intent of the competency standards is to ensure that the resident is adequately trained to identify and document unmet oral health treatment needs within a specific population and plan effective community-based programs to meet these needs.*

STUDENT/RESIDENT CURRICULUM PLAN

4-~~6~~7 Each student/resident in a dental public health program **must** have a written curriculum plan, designed to build upon and augment previous education and experience, and which describes the competencies to be developed during the program, activities necessary to develop the stated competencies, and methods to evaluate the competencies.

SUPERVISED FIELD EXPERIENCE

4-~~7~~8 The program **must** include a supervised field experience at a location determined by the program director which requires the students/residents to gain an understanding of one or more of the competencies listed in Standard 4-~~5~~6. The program **must** document, with a log of activities, the specific dental public health competency(ies) addressed during each field experience.

Intent: *Supervised multi-day field experiences ~~are multi-week or multi-day mentored experiences such as practicums or internships that~~ allow students/residents to enhance their practical understanding in one or more of the competencies listed in Standard 4-~~5~~6. Supervised field experiences are not meant to include attendance at meetings, conferences, fieldtrips or other didactic sessions.*

Examples of Evidence to demonstrate compliance may include:

- Supervisor's evaluation
- Written, guided personal reflections and insights learned related to dental public health competency(ies)
- Written program assessments or business plans, including staffing models, workflow, budgeting, and business plans
- Other modalities which provide evidence of the experience

EXPERIENCES IN PUBLIC HEALTH DENTAL CARE SETTINGS

4-9 The program must include a supervised experience at a location determined by the program director which offers an opportunity for the students/residents to gain knowledge regarding the administration of oral healthcare services (management and delivery of care) of a dental program that provides clinical care to underserved and/or vulnerable population(s). The students'/residents' experience in a public health dental clinic setting must log evidence of a minimum of 80 hours of supervised participation and documentation of the experience and understanding the challenges to delivering oral health services to the population(s) served. Completion of Standard 4-9 does not fulfill the requirement for Standard 4-8 (Supervised Field Experience).

Intent: *To facilitate the development of Dental Public Health students'/residents' knowledge in the delivery of oral healthcare services to populations, students/residents should deepen their understanding of the provision of clinical care in settings that focus on* underserved and/or vulnerable population(s). *Experiences are multi-day mentored activities such as personally providing clinical care, practicums or internships that offer the opportunity for students/residents to enhance their understanding and appreciation of dental care for underserved* and/or vulnerable population(s) *populations. Clinical facilities may include but are not limited to Community Health Centers, hospitals, schools, clinics that care for*

vulnerable populations, such as low-income children, persons living with HIV, the homeless, and those with intellectual and/or developmental disabilities.

Examples of Evidence to demonstrate compliance may include:

- Supervisor's evaluation
- Written, guided personal reflections and insights on the challenges delivering oral health care services to underserved and vulnerable populations,
- Written program assessments or business plans, including staffing models, workflow, budgeting, and business plans
- Other modalities which provide evidence of the experience.

RESEARCH PROJECT

4-~~9~~10 The program **must** include a supervised research experience for each student/resident, approved by the program director, that demonstrates application of dental public health principles and sound dental public health research methodology, biostatistics and epidemiology, and is consistent with the competencies listed in Standard 4-~~5~~6. (Also see Standard 6)

4-11 Students/Residents **must** complete one or more residency research projects after a review of the literature and approval of a comprehensive protocol;

***Intent**: The intent is to ensure that each student/resident is capable of conducting applied research to advance knowledge and understanding of the biological, social, behavioral, environmental and economic factors affecting the oral health status of the population and their prevention and control.*

~~PROGRAM DURATION~~

~~4-9 A two-year dental public health program **must** encompass a minimum of two academic years in duration.~~

~~4-10A one-year dental public health program **must** encompass a minimum of 12 months in duration~~.

STANDARD 5 - ADVANCED DENTAL EDUCATION STUDENTS/RESIDENTS ELIGIBILITY AND SELECTION

Eligible applicants to advanced dental education programs accredited by the Commission on Dental Accreditation **must** be graduates from:

a. Predoctoral dental programs in the U.S. accredited by the Commission on Dental Accreditation; or
b. Predoctoral dental programs in Canada accredited by the Commission on Dental Accreditation of Canada; or
c. International dental schools that provide equivalent educational background and standing as determined by the program.

Specific written criteria, policies and procedures **must** be followed when admitting students/residents.

Intent: *Written non-discriminatory policies are to be followed in selecting students/residents. These policies should make clear the methods and criteria used in recruiting and selecting students/residents and how applicants are informed of their status throughout the selection process. Program directors are encouraged to refer applicants to the Dental Public Health program to the American Board of Dental Public Health for eligibility requirements to obtain Diplomate status.*

Admission of students/residents with advanced standing **must** be based on the same standards of achievement required by students/residents regularly enrolled in the program. Students/Residents with advanced standing **must** receive a~~n appropriate~~ curriculum that results in the same standards of competence required by students/residents regularly enrolled in the program.

Examples of evidence to demonstrate compliance may include:

- Policies and procedures on advanced standing
- Results of ~~appropriate~~ qualifying examinations
- Course equivalency or other measures to demonstrate equal scope and level of knowledge

Intent*: Advanced standing refers to applicants that may be considered for admission to a training program whose curriculum has been modified after taking into account the applicant's past experience. Examples include transfer from a similar program at another institution, completion of training at a non-CODA accredited program, or documented practice experience in the given discipline. Acceptance of advanced standing students/residents will not result in an increase of the program's approved number of enrollees. Applicants for advanced standing are expected to fulfill all of the admission requirements mandated for students/residents in the conventional program and be held to the same academic standards. Advanced standing students/residents, to be certified for completion, are expected to demonstrate the same standards of competence as those in the conventional program.*

5-1 The selection of dentists for advanced education in dental public health **must** be based on an assessment of their past academic performance to determine whether they will be able to complete the program requirements.

5-2 Applicants for one-year dental public health programs **must** possess an MPH or comparable degree.

Intent: For those students/residents admitted with a graduate degree comparable to the MPH, it is expected that the program director document the satisfactory completion of the educational requirements of Standard 4-3. Where deficiencies exist, the student's/resident's program director will create a supplemental curriculum plan to meet those requirements.

EVALUATION

A system of ongoing evaluation and advancement **must** ensure that, through the director and faculty, each program:

a. Periodically, but at least semiannually, assesses the progress toward (formative assessment) and achievement of (summative assessment) the competencies for the discipline using formal evaluation methods;
b. Provides to students/residents an assessment of their performance, at least semiannually;
c. Advances students/residents to positions of higher responsibility only on the basis of an evaluation of their readiness for advancement; and
d. Maintains a personal record of evaluation for each student/resident which is accessible to the student/resident and available for review during site visits.

Intent: *(*a) *The evaluation of competence is an ongoing process that requires a variety of assessments that can measure the acquisition of knowledge, skills and values necessary for discipline-specific level practice. It is expected that programs develop and periodically review evaluation methods that include both formative and summative assessments. (b) Student/Resident evaluations should be recorded and available in written form.*
(c) Deficiencies should be identified in order to institute corrective measures.
(d) Student/Resident evaluation is documented in writing and is shared with the student/resident.

5-3 The student's/resident's curriculum plan **must** be reviewed at least semiannually and revised ~~as appropriate~~ when it is found that program objectives are not being met.

DUE PROCESS

There **must** be specific written due process policies and procedures for adjudication of academic and disciplinary complaints, which parallel those established by the sponsoring institution.

RIGHTS AND RESPONSIBILITIES

At the time of enrollment, the advanced dental education students/residents **must** be apprised in writing of the educational experience to be provided, including the nature of assignments to other departments or institutions and teaching commitments. Additionally, all advanced dental education students/residents **must** be provided with written information which affirms their obligations and responsibilities to the institution, the program and program faculty.

Intent: *Adjudication procedures should include institutional policy which provides due process for all individuals who may potentially be involved when actions are contemplated or initiated which could result in disciplinary actions, including dismissal of a student/resident (for academic or disciplinary reasons). In addition to information on the program, students/residents should also be provided with written information which affirms their obligations and responsibilities to the institution, the program, and the faculty. The program information provided to the residents should include, but not necessarily be limited to, information about tuition, stipend or other compensation; vacation and sick leave; practice privileges and other activity outside the educational program; professional liability coverage; and due process policy and current accreditation status of the program.*

5-4 Advanced education students/residents in dental public health **must** be provided with written information about:

a. Tuition, stipend and /or the compensation;
b. Vacation and sick leave;
c. Professional liability coverage;
d. Travel essential to completing the program requirements and if funds are available; ~~and~~
e. Current accreditation status of the program~~.~~; and
f. American Board of Dental Public Health eligibility and certification process.

STANDARD 6 - RESEARCH

Advanced dental education students/residents must engage in scholarly activity (see Standard 4-~~8~~10 and 4-11).

~~6-1 Students/Residents **must** understand research methodology.~~

~~6-2 Students/Residents **must** understand biostatistics and epidemiology~~.

6-~~3~~1 Students/Residents **must** ~~complete one or more residency research projects after a review of the literature and approval of a comprehensive protocol; they **must** also~~ produce evidence of engagement in scholarly activity based on the research conducted during the program.

Examples of evidence to demonstrate compliance may include:

- Presentation of papers from the research project at conferences.
- Development and submission of posters from the research project for scientific meetings.
- Submission of abstracts from the research project at educational meetings or publication in peer reviewed journals.
- Submission of articles from the research project for publication in peer reviewed journals.

~~***Intent**: The intent is to ensure that each student/resident is capable of conducting applied research to advance knowledge and understanding of the biological, social, behavioral, environmental and economic factors affecting the oral health status of the population and their prevention and control. Students/Residents are encouraged to document new knowledge in the literature for the benefit of others.*~~

Commission on Dental Accreditation

At its Winter 2023 meeting, the Commission directed that the proposed revisions to Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain be distributed to the appropriate communities of interest for review and comment, with comment due December 1, 2023, for review at the Winter 2024 Commission meeting.

Written comments will only be accepted through the Commission's Electronic Comment Submission Portal at this link:

https://surveys.ada.org/jfe/form/SV_5nJAioMq6EalSRg

Proposed Revisions to Standards Following Validity and Reliability Study

Additions are Underlined;
~~Strikethroughs~~ indicate Deletions

Note: A proposed revision currently under circulation through June 1, 2023 is noted below in green. This proposed revision will be considered at the Commission's Summer 2023 meeting.

Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain

Accreditation Standards For Advanced Dental Education Programs in Orofacial Pain

Commission on Dental Accreditation
211 East Chicago Avenue
Chicago, Illinois 60611-2678

(312. 440-4653
https://coda.ada.org/

Accreditation Standards for Advanced Dental Education Programs in Orofacial Pain

Document Revision History

Date	Item	Action
~~August 5, 2016~~	~~Accreditation Standards for Advanced General Dentistry Education Programs in Orofacial Pain~~	~~Approved~~
~~August 5, 2016~~	~~Revised Mission Statement~~	~~Adopted~~
~~January 1, 2017~~	~~Revised Mission Statement~~	~~Implemented~~
~~July 1, 2017~~	~~Accreditation Standards for Advanced General Dentistry Education Programs in Orofacial Pain~~	~~Implemented~~
~~August 4, 2017~~	~~Revised Accreditation Status Definitions~~	~~Approved, Implemented~~
~~August 4, 2017~~	~~Revised Standards 1-5, 1-9, 1-10, 2-2, 2-3, 2-4, 2-12, 2-18, 2-20, 3-3, 3-6, 4-6, 4-7, 4-9 and 5-1 and new Standard 3-9~~	~~Adopted~~
~~July 1, 2018~~	~~Revised Standards 1-5, 1-9, 1-10, 2-2, 2-3, 2-4, 2-12, 2-18, 2-20, 3-3, 3-6, 4-6, 4-7, 4-9 and 5-1 and new Standard 3-9~~	~~Implemented~~
~~August 3, 2018~~	~~Revised Terminology Related to Advanced Education Programs~~	~~Adopted~~
~~January 1, 2019~~	~~Revised Terminology Related to Advanced Education Programs~~	~~Implemented~~
~~August 2, 2019~~	~~Revised Definition of "Patients with special needs"~~	~~Adopted, Implemented~~
~~August 2, 2019~~	~~New Standard 4-10~~	~~Adopted, Implemented~~
~~August 2, 2019~~	~~Revised Definition of "Should"~~	~~Adopted~~
~~January 31, 2020~~	~~Revised Definition of "Should"~~	~~Implemented~~
~~August 6, 2021~~	~~Revised Mission Statement~~	~~Adopted~~

~~January 1, 2022~~	~~Revised Mission Statement~~	~~Implemented~~

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Mission Statement of the Commission on Dental Accreditation

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Commission on Dental Accreditation
Adopted: August 5, 2016; Revised August 6, 2021

Accreditation Status Definitions

Programs That Are Fully Operational

Approval *(without reporting requirements*): An accreditation classification granted to an educational program indicating that the program achieves or exceeds the basic requirements for accreditation.

Approval *(with reporting requirements*): An accreditation classification granted to an educational program indicating that specific deficiencies or weaknesses exist in one or more areas of the program. Evidence of compliance with the cited standards or policies must be demonstrated within a timeframe not to exceed eighteen (18) months if the program is between one and two years in length or two years if the program is at least two years in length. If the deficiencies are not corrected within the specified time period, accreditation will be withdrawn, unless the Commission extends the period for achieving compliance for good cause. Identification of new deficiencies during the reporting time period will not result in a modification of the specified deadline for compliance with prior deficiencies.

Circumstances under which an extension for good cause would be granted include, but are not limited to:

- sudden changes in institutional commitment;
- natural disaster which affects affiliated agreements between institutions; faculty support; or facilities;
- changes in institutional accreditation;
- interruption of an educational program due to unforeseen circumstances that take faculty, administrators or students away from the program.

Revised: 8/17; 2/16; 5/12; 1/99; Reaffirmed: 8/13; 8/10, 7/05; Adopted: 1/98

Programs That Are Not Fully Operational

A program which has not enrolled and graduated at least one class of students/residents and does not have students/residents enrolled in each year of the program is defined by the Commission as not fully operational. The accreditation classification granted by the Commission on Dental Accreditation to programs which are not fully operational is "initial accreditation." When initial accreditation status is granted to a developing education program, it is in effect through the projected enrollment date. However, if enrollment of the first class is delayed for two consecutive years following the projected enrollment date, the program's accreditation will be discontinued, and the institution must reapply for initial accreditation and update pertinent information on program development. Following this, the Commission will reconsider granting initial accreditation status.

Initial Accreditation is the accreditation classification granted to any dental, advanced dental or allied dental education program which is not yet fully operational. This accreditation classification provides evidence to educational institutions, licensing bodies, government or other granting agencies that, at the time of initial evaluation(s), the developing education program has

the potential for meeting the standards set forth in the requirements for an accredited educational program for the specific occupational area. The classification “initial accreditation” is granted based upon one or more site evaluation visit(s).

Introduction

This document constitutes the standards by which the Commission on Dental Accreditation and its site visitors evaluate Advanced Dental Education Programs in Orofacial Pain for accreditation purposes. It also serves as a program development guide for institutions that wish to establish new programs or improve existing programs.

The standards identify those aspects of program structure and operation that the Commission regards as essential to program quality and achievement of program goals. They specify the minimum acceptable requirements for programs and provide guidance regarding alternative and preferred methods of meeting standards.

Although the standards are comprehensive and applicable to all institutions that offer advanced dental education programs, the Commission recognizes that methods of achieving standards may vary according to the size, type, and resources of sponsoring institutions. Innovation and experimentation with alternative ways of providing required training are encouraged, assuming standards are met and compliance can be demonstrated. The Commission has an obligation to the public, the profession, and the prospective resident to assure that programs accredited as Advanced Dental Education Programs in Orofacial Pain provide an identifiable and characteristic core of required training and experience.

Goals

Advanced Dental Education Programs in Orofacial Pain are educational programs designed to provide training beyond the level of predoctoral education in oral health care, using applied basic and behavioral sciences. Education in these programs is based on the concept that oral health is an integral and interactive part of total health. The programs are designed to expand the scope and depth of the graduates' knowledge and skills to enable them to provide care for individuals with orofacial pain.

The goals of these programs should include preparation of the graduate to:

1. Be knowledgeable in orofacial pain at a level beyond predoctoral education relating to the basic mechanisms and the anatomic, physiologic, neurologic, vascular, behavioral, and psychosocial aspects of orofacial pain.
2. Plan and provide interdisciplinary/multidisciplinary health care for a wide variety of patients with orofacial pain.
3. Interact with other healthcare professionals in order to facilitate the patient's total healthcare.
4. Manage the delivery of oral health care by applying concepts of patient and practice management and quality improvement that are responsive to a dynamic health care environment.
5. Function effectively and efficiently in multiple health care environments and within interdisciplinary/multidisciplinary health care teams.
6. Apply scientific principles to learning and oral health care. This includes using critical thinking, evidence or outcomes-based clinical decision-making and technology-based information retrieval systems.
7. Enhance the dissemination of information about diagnosis and treatment/management of orofacial pain to all practitioners of the health profession.
8. Encourage the development of multidisciplinary teams composed of basic scientists and clinicians from appropriate disciplines to study orofacial pain conditions, to evaluate current therapeutic modalities, and to develop new and improve upon existing procedures for diagnosis and treatment/management of such conditions/diseases/syndromes.
9. Enhance the interaction and communication among those investigating pain at their institution and beyond.
10. Utilize the values of professional ethics, lifelong learning, patient centered care, adaptability, and acceptance of cultural diversity in professional practice.

Definition of Terms

Key terms used in this document (i.e., Must, should, could and may. were selected carefully and indicate the relative weight that the commission attaches to each statement. The definition of these words as used in the standards follows:

Competencies: Written statements describing the levels of knowledge, skills, and values expected of residents completing the program.

Competent: The level of knowledge, skills, and values required by residents to perform independently an aspect of dental practice after completing the program.

Educationally qualified: Board eligible in orofacial pain or successful completion of an orofacial pain program of at least two years in length.

Examples of evidence to demonstrate compliance include: Desirable condition, practice or documentation indicating the freedom or liberty to follow a suggested alternative.

Intent: Intent statements are presented to provide clarification to the advanced dental education programs in orofacial pain in the application of and in connection with compliance with the Accreditation Standards for Advanced Dental Programs in Orofacial Pain. The statements of intent set forth some of the reasons and purposes for the particular Standards. As such, these statements are not exclusive or exhaustive. Other purposes may apply.

Interdisciplinary: Including dentistry and other health care professions.

Manage: Coordinate the delivery of care using a patient-focused approach within the scope of their training. Patient-focused care should include concepts related to the patient's social, cultural, behavioral, economic, medical and physical status.

May or could: Indicates freedom or liberty to follow a suggested alternative.

Multidisciplinary: Including all disciplines within the profession of dentistry.

Must: Indicates an imperative or duty; an essential or indispensable item; mandatory.

Patients with special needs: Those patients whose medical, physical, psychological, cognitive or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical conditions, significant physical limitations, and/or other vulnerable populations.

Should: Indicates a method to achieve the standard; highly desirable, but not mandatory.

SOAP: Subjective Objective Assessment Plan

Sponsor: The institution that has the overall administrative control and responsibility for the conduct of the program.

Resident: The individual enrolled in a Commission on Dental Accreditation-accredited advanced dental education program.

STANDARD 1 – INSTITUTIONAL AND PROGRAM EFFECTIVENESS

1-1 Each sponsoring or co-sponsoring United States-based educational institution, hospital or health care organization **must** be accredited by an agency recognized by the United States Department of Education or accredited by an accreditation organization recognized by the Centers for Medicare and Medicaid Services (CMS).

United States military programs not sponsored or co-sponsored by military medical treatment facilities, United States-based educational institutions, hospitals or health care organizations accredited by an agency recognized by the United States Department of Education or accredited by an accreditation organization recognized by the Centers for Medicare and Medicaid Services (CMS) **must** demonstrate successful achievement of Service-specific organizational inspection criteria.

Examples of evidence to demonstrate compliance may include:
Accreditation certificate or current official listing of accredited institutions
Evidence of successful achievement of Service-specific organizational inspection criteria

1-2 The sponsoring institution **must** ensure that support from entities outside of the institution does not compromise the teaching, clinical and research components of the program.

Examples of evidence to demonstrate compliance may include:
Written agreement(s)
Contract(s/Agreement(s) between the institution/program and sponsor(s) related to facilities, funding, and faculty financial support

1-3 The authority and final responsibility for curriculum development and approval, resident selection, faculty selection and administrative matters **must** rest within the sponsoring institution.

1-4 The financial resources **must** be sufficient to support the program's stated purpose/mission, goals and objectives.

Examples of evidence to demonstrate compliance may include:
Program budgetary records
Budget information for previous, current and ensuing fiscal year

1-5 Arrangements with all sites not owned by the sponsoring institution where educational activity occurs **must** be formalized by means of current written agreements that clearly define the roles and responsibilities of the parties involved.

Intent*: Sites where educational activity occurs include any dental practice setting (e.g. private offices, mobile dentistry, mobile dental provider, etc.). The items that are covered in agreements do not have to be contained in a single document. They may be included in multiple agreements, both formal and informal (e.g., addenda and letters of mutual understanding).*

Examples of evidence to demonstrate compliance may include:
Written agreements

1-6 There **must** be opportunities for program faculty to participate in institution-wide committee activities.

Examples of evidence to demonstrate compliance may include:
Bylaws or documents describing committee structure
Copy of institutional committee structure and/or roster of membership by dental faculty

1-7 Orofacial pain residents **must** have the same privileges and responsibilities provided residents in other professional education programs.

Examples of evidence to demonstrate compliance may include:
Bylaws or documents describing resident privileges

1-8 The medical staff bylaws, rules, and regulations of the sponsoring, co-sponsoring, or affiliated hospital **must** ensure that dental staff members are eligible for medical staff membership and privileges.

Intent: *Dental staff members have the same rights and privileges as other medical staff of the sponsoring, co-sponsoring or affiliated hospital, within the scope of practice.*

Examples of evidence to demonstrate compliance may include:
All related hospital bylaws
Copy of institutional committee structure and/or roster of membership by dental faculty

1-9 The program **must** have written overall program goals and objectives that emphasize:

a. orofacial pain,
b. resident education,
c. patient care, and
d. research.

Intent: *The "program" refers to the Advanced Dental Education Program in Orofacial Pain that is responsible for training residents within the context of providing patient*

care. The overall goals and objectives for resident education are intended to describe general outcomes of the residency training program rather than specific learning objectives for areas of residency training as described in Standard 2-2. Specific learning objectives for residents are intended to be described as goals and objectives or competencies for resident training and included in the response to Standard 2-2. An example of overall goals can be found in the Goals section on page 8 of this document.

Examples of evidence to demonstrate compliance may include:
Written overall program goals and objectives

1-10 The program **must** have a formal and ongoing outcomes assessment process that regularly evaluates the degree to which the program's overall goals and objectives are being met and make program improvements based on an analysis of that data.

Intent: *The intent of the outcomes assessment process is to collect data about the degree to which the overall goals and objectives described in response to Standard 1-9 are being met.*

The outcomes process developed should include each of the following steps:

1. *development of clear, measurable goals and objectives consistent with the program's purpose/mission;*
2. *implementation of procedures for evaluating the extent to which the goals and objectives are met;*
3. *collection of data in an ongoing and systematic manner;*
4. *analysis of the data collected and sharing of the results with appropriate audiences;*
5. *identification and implementation of corrective actions to strengthen the program; and*
6. *review of the assessment plan, revision as appropriate, and continuation of the cyclical process.*

Examples of evidence to demonstrate compliance may include:
Written overall program goals and objectives
Outcomes assessment plan and measures
Outcomes results
Annual review of outcomes results
Meeting minutes where outcomes are discussed
Decisions based on outcomes results
Successful completion of a certifying examination in Orofacial Pain

Ethics and Professionalism

1-11 The program **must** ensure that residents are able to demonstrate the application of the principles of ethical reasoning, ethical decision making and professional responsibility as

they pertain to the academic environment, research, patient care, and practice management.

Intent: *Residents should know how to draw on a range of resources such as professional codes, regulatory law, and ethical theories to guide judgment and action for issues that are complex, novel, ethically arguable, divisive, or of public concern.*

STANDARD 2 – EDUCATIONAL PROGRAM

2-1 The orofacial pain program **must** be designed to provide advanced knowledge and skills beyond the D.D.S. or D.M.D. training.

Curriculum Content

2-2 The program **must** either describe the goals and objectives for each area of resident training or list the competencies that describe the intended outcomes of resident education.

Intent: *The program is expected to develop specific educational goals that describe what the resident will be able to do upon completion of the program. These educational goals should describe the resident's abilities rather than educational experiences the residents may participate in. These specific educational goals may be formatted as either goals and objectives or competencies for each area of resident training. These educational goals are to be circulated to program faculty and staff and made available to applicants of the program.*

Examples of evidence to demonstrate compliance may include:
Written goals and objectives for resident training or competencies

2-3 Written goals and objectives **must** be developed for all instruction included in this curriculum.

Example of Evidence to demonstrate compliance may include:
Written goals and objectives
Content outlines

2-4 The program **must** have a written curriculum plan that includes structured clinical experiences and didactic sessions designed to achieve the program's written goals and objectives or competencies for resident training.

Intent: *The program is expected to organize the didactic and clinical educational experiences into a formal curriculum plan. For each specific goal or objective or competency statement described in response to Standard 2-2, the program is expected to develop educational experiences designed to enable the resident to acquire the skills, knowledge, and values necessary in that area. The program is expected to organize these didactic and clinical educational experiences into a formal curriculum plan.*

Examples of evidence to demonstrate compliance may include:
Written curriculum plan with educational experiences tied to specific written goals and objectives or competencies

Didactic and clinical schedules

Biomedical Sciences

2-5 Formal instruction **must** be provided in each of the following:

a. Gross and functional anatomy and physiology including the musculoskeletal and articular system of the orofacial, head, and cervical structures;

b. Growth, development, and aging of the masticatory system;

c. Head and neck pathology and pathophysiology with an emphasis on pain;

d. Applied rheumatology with emphasis on the temporomandibular joint (TMJ) and related structures;

e. Sleep physiology and dysfunction;

f. Oromotor disorders including dystonias, dyskinesias, and bruxism;

g. Epidemiology of orofacial pain disorders;

h. Pharmacology and pharmacotherapeutics; and

i. Principals of biostatistics, research design and methodology, scientific writing, and critique of literature.

2-6 The program **must** provide a strong foundation of basic and applied pain sciences to develop knowledge in functional neuroanatomy and neurophysiology of pain including:

a. The neurobiology of pain transmission and pain mechanisms in the central and peripheral nervous systems;

b. Mechanisms associated with pain referral to and from the orofacial region;

c. Pharmacotherapeutic principles related to sites of neuronal receptor specific action pain;

d. Pain classification systems;

e. Psychoneuroimmunology and its relation to chronic pain syndromes;

f. Primary and secondary headache mechanisms;

g. Pain of odontogenic origin and pain that mimics odontogenic pain; and

h. The contribution and interpretation of orofacial structural variation (occlusal and skeletal) to orofacial pain, headache, and dysfunction.

Behavioral Sciences

2-7 Formal instruction **must** be provided in behavioral science as it relates to orofacial pain disorders and pain behavior including:

a. cognitive-behavioral therapies including habit reversal for oral habits, stress management, sleep problems, muscle tension habits and other behavioral factors;

b. the recognition of pain behavior and secondary gain behavior;

c. psychologic disorders including depression, anxiety, somatization and others as they relate to orofacial pain, sleep disorders, and sleep medicine; and

d. conducting and applying the results of psychometric tests.

Clinical Sciences

2-8 A majority of the total program time **must** be devoted to providing orofacial pain patient services, including direct patient care and clinical rotations.

2-9 The program **must** provide instruction and clinical training for the clinical assessment and diagnosis of complex orofacial pain disorders to ensure that upon completion of the program the resident is able to:

a. Conduct a comprehensive pain history interview;

b. Collect, organize, analyze, and interpret data from medical, dental, behavioral, and psychosocial histories and clinical evaluation to determine their relationship to the patient's orofacial pain and/or sleep disorder complaints;

c. Perform clinical examinations and tests and interpret the significance of the data;

Intent: *Clinical evaluation may include: musculoskeletal examination of the head, jaw, neck and shoulders; range of motion; general evaluation of the cervical spine; TM joint function; jaw imaging; oral, head and neck screening, including facial-skeletal and dental-occlusal structural variations; cranial nerve screening; posture evaluation; physical assessment including vital signs; and diagnostic blocks.*

d. Function effectively within interdisciplinary health care teams, including the recognition for the need of additional tests or consultation and referral; and

Intent: *Additional testing may include additional imaging; referral for psychological or psychiatric evaluation; laboratory studies; diagnostic autonomic nervous system blocks, and systemic anesthetic challenges.*

e. Establish a differential diagnosis and a prioritized problem list.

2-10 The program **must** provide training to ensure that upon completion of the program, the resident is able to manage patients with special needs.

***Intent**: The program is expected to provide educational instruction, either didactically or clinically, during the program which enhances the resident's ability to manage patients with special needs.*

Examples of evidence to demonstrate compliance may include:
Written goals and objectives or competencies for resident training related to patients with special needs
Didactic schedules

2-11 ~~**2-10**~~ The program **must** provide instruction and clinical training and direct patient experience in multidisciplinary pain management for the orofacial pain patient to ensure that upon completion of the program the resident is able to:

a. Develop an appropriate treatment plan addressing each diagnostic component on the problem list with consideration of cost/risk benefits;

b. Incorporate risk assessment of psychosocial and medical factors into the development of the individualized plan of care;

c. Obtain informed consent;

d. Establish a verbal or written agreement, as appropriate, with the patient emphasizing the patient's treatment responsibilities;

e. Have primary responsibility for the management of a broad spectrum of orofacial pain patients in a multidisciplinary orofacial pain clinic setting, or interdisciplinary associated services. Responsibilities should include:

1. intraoral appliance therapy;
2. physical medicine modalities;
3. diagnostic/therapeutic injections;
~~3.~~4. sleep-related breathing disorder intraoral appliances;
~~4.~~5. non-surgical management of orofacial trauma;
~~5.~~6. behavioral therapies beneficial to orofacial pain; and
~~6.~~7. pharmacotherapeutic treatment of orofacial pain including systemic and topical medications ~~and diagnostic/therapeutic injections~~.

***Intent**: This should include judicious selection of medications directed at the presumed pain mechanisms involved, as well as adjustment, monitoring, and reevaluation.*

Common medications may include: muscle relaxants; sedative agents for chronic pain and sleep management; opioid use in management of chronic pain; the adjuvant analgesic use of tricyclics and other antidepressants used for chronic pain; anticonvulsants, membrane stabilizers, and sodium channel blockers for neuropathic pain; local and systemic anesthetics in management of neuropathic pain; anxiolytics; analgesics and anti-inflammatories; prophylactic and abortive medications for primary headache disorders; and therapeutic use of botulinum toxin injections.

Common issues may include: management of medication overuse headache; medication side effects that alter sleep architecture; prescription medication dependency withdrawal; referral and co-management of pain in patients addicted to prescription, non prescription and recreational drugs; familiarity with the role of preemptive anesthesia in neuropathic pain.

2-12 ~~**2-11**~~ Residents **must** participate in clinical experiences in other healthcare services (not to exceed 30% of the total training period).

***Intent:** Experiences may include observation or participation in the following: oral and maxillofacial surgery to include procedures for intracapsular TMJ disorders; outpatient anesthesia pain service; in-patient pain rotation; rheumatology, neurology, oncology, otolaryngology, rehabilitation medicine; headache, radiology, oral medicine, and sleep disorder clinics.*

2-13 ~~**2-12**~~ Each assigned rotation or experience **must** have:

a. written objectives that are developed in cooperation with the department chairperson, service chief, or facility director to which the residents are assigned;
b. resident supervision by designated individuals who are familiar with the objectives of the rotation or experience; and
c. evaluations performed by the designated supervisor.

***Intent:** This standard applies to all assigned rotations or experiences, whether they take place in the sponsoring institution or a major or minor activity site. Supplemental activities are exempt.*

Examples of evidence to demonstrate compliance may include:
Description and schedule of rotations
Written objectives of rotations
Resident evaluations

2-14 ~~2-13~~ Residents **must** gain experience in teaching orofacial pain.

Intent: *Residents should be provided opportunities to obtain teaching experiences in orofacial pain (i.e. small group and lecture formats, presenting to dental and medical peer groups, predoctoral student teaching experiences, and/or continuing education programs.*

2-15 ~~2-14~~ Residents **must** actively participate in the collection of history and clinical data, diagnostic assessment, treatment planning, treatment, and presentation of treatment outcome.

2-16 ~~2-15~~ The program **must** provide instruction in the principles of practice management.

Intent: *Suggested topics include: quality management; principles of peer review; business management and practice development; principles of professional ethics, jurisprudence and risk management; alternative health care delivery systems; informational technology; and managed care; medicolegal issues, workers compensation, second opinion reporting; criteria for assessing impairment and disability; legal guidelines governing licensure and dental practice, scope of practice with regards to orofacial pain disorders, and instruction in the regulatory requirements of chronic opioid maintenance.*

Examples of evidence to demonstrate compliance may include:
Course outlines

2-17 ~~2-16~~ Formal patient care conferences **must** be held at least ten (10) times per year.

Intent: *Conferences should include diagnosis, treatment planning, progress, and outcomes. These conferences should be attended by residents and faculty representative of the disciplines involved. These conferences are not to replace the daily faculty/resident interactions regarding patient care.*

Examples of evidence to demonstrate compliance may include:
Conference schedules

2-18 ~~2-17~~ Residents **must** be given assignments that require critical review of relevant scientific literature.

Intent: *Residents are expected to have the ability to critically review relevant literature as a foundation for lifelong learning and adapting to changes in oral health care. This should include the development of critical evaluation skills and the ability to apply evidence-based principles to clinical decision-making.*

Relevant scientific literature should include current pain science and applied pain literature in dental and medical science journals with special emphasis on pain mechanisms, orofacial pain, head and neck pain, and headache.

Examples of evidence to demonstrate compliance may include:
Evidence of experiences requiring literature review

Program Length

2-19 ~~**2-18**~~ The duration of the program **must** be at least two consecutive academic years with a minimum of 24 months, full-time or its equivalent.

Examples of evidence to demonstrate compliance may include:
Program schedules
Written curriculum plan

2-20 ~~**2-19**~~ Where a program for part-time residents exists, it **must** be started and completed within a single institution and designed so that the total curriculum can be completed in no more than twice the duration of the program length.

Intent: *Part-time residents may be enrolled, provided the educational experiences are the same as those acquired by full-time residents and the total time spent is the same.*

Examples of evidence to demonstrate compliance may include:
Description of the part-time program
Documentation of how the part-time residents will achieve similar experiences and skills as full-time residents
Program schedules

Evaluation

2-21 ~~**2-20**~~ The program's resident evaluation system **must** assure that, through the director and faculty, each program:

a) periodically, but at least two times annually, evaluates and documents the resident's progress toward achieving the program's written goals and objectives of resident training or competencies using appropriate written criteria and procedures;

b) provides residents with an assessment of their performance after each evaluation. Where deficiencies are noted, corrective actions **must** be taken; and

c) maintains a personal record of evaluation for each resident that is accessible to the resident and available for review during site visits.

Intent: *While the program may employ evaluation methods that measure a resident's skills or behavior at a given time, it is expected that the program will, in addition, evaluate the degree to which the resident is making progress toward achieving the specific goals and objectives or competencies for resident training described in response to Standard 2-2.*

Examples of evidence to demonstrate compliance may include:
Written evaluation criteria and process
Resident evaluations with identifying information removed
Personal record of evaluation for each resident
Evidence that corrective actions have been taken

STANDARD 3 – FACULTY AND STAFF

3-1 The program **must** be administered by a director who is board certified or educationally qualified in orofacial pain and has a full-time appointment in the sponsoring institution with a primary commitment to the orofacial pain program.

3-2 The program director **must** have sufficient authority and time to fulfill administrative and teaching responsibilities in order to achieve the educational goals of the program.

Intent: *The program director's responsibilities include:*

a. *program administration;*
b. *development and implementation of the curriculum plan;*
c. *ongoing evaluation of program content, faculty teaching, and resident performance;*
d. *evaluation of resident training and supervision in affiliated institutions and off-service rotations;*
e. *maintenance of records related to the educational program; and*
f. *resident selection; and*
g. *preparing graduates to seek certification by the American Board of Orofacial Pain.*

In those programs where applicants are assigned centrally, responsibility for selection of residents may be delegated to a designee.

Examples of evidence to demonstrate compliance may include:

Program director's job description
Job description of individuals who have been assigned some of the program director's job responsibilities
Formal plan for assignment of program director's job responsibilities as described above
Program records

3-3 All sites where educational activity occurs **must** be staffed by faculty who are qualified by education and/or clinical experience in the curriculum areas for which they are responsible and have collective competence in all areas of orofacial pain included in the program.

Intent: *Faculty should have current knowledge at an appropriate level for the curriculum areas for which they are responsible. The faculty, collectively, should have competence in all areas of orofacial pain covered in the program.*

The program is expected to develop criteria and qualifications that would enable a faculty member to be responsible for a particular area of orofacial pain if that faculty member is not trained in orofacial pain. The program is expected to

evaluate non-discipline specific faculty members who will be responsible for a particular area and document that they meet the program's criteria and qualifications.

Whenever possible, programs should avail themselves of discipline-specific faculty as trained consultants for the development of a mission and curriculum, and for teaching.

Examples of evidence to demonstrate compliance may include:
Full and part-time faculty rosters
Program and faculty schedules
Completed BioSketch of faculty members
Criteria used to certify a non-discipline specific faculty member as responsible for teaching an area of orofacial pain
Records of program documentation that non-discipline specific faculty members as responsible for teaching an area of orofacial pain

3-4 A formally defined evaluation process **must** exist that ensures measurements of the performance of faculty members annually.

Intent: *The written annual performance evaluations should be shared with the faculty members. The program should provide a mechanism for residents to confidentially evaluate instructors, courses, program director, and the sponsoring institution.*

Examples of evidence to demonstrate compliance may include:
Faculty files
Performance appraisals

3-5 A faculty member **must** be present in the clinic for consultation, supervision, and active teaching when residents are treating patients in scheduled clinic sessions.

Intent: *This standard does not preclude occasional situations where a faculty member cannot be available.*

Faculty members should contribute to an ongoing resident and program/curriculum evaluation process. The teaching staff should be actively involved in the development and implementation of the curriculum.

Examples of evidence to demonstrate compliance may include:
Faculty clinic schedules

3-6 At each site where educational activity occurs, adequate support staff, including allied dental personnel and clerical staff, **must** be consistently available to allow for efficient administration of the program.

Intent: *The program should determine the number and participation of allied support and clerical staff to meet the educational and experiential goals and objectives.*

Examples of evidence to demonstrate compliance may include:
Staff schedules

3-7 There **must** be evidence of scholarly activity among the orofacial pain faculty

Intent: *Such evidence may include: participation in clinical and/or basic research; mentoring of orofacial pain resident research; publication in peer-reviewed scientific media; development of innovative teaching materials and courses; and presentation at scientific meetings and/or continuing education courses at the local, regional, or national level.*

3-8 The program **must** show evidence of an ongoing faculty development process.

Intent: Ongoing faculty development is a requirement to improve teaching and learning, to foster curricular change, to enhance retention and job satisfaction of faculty, and to maintain the vitality of academic dentistry as the wellspring of a learned profession.

Examples of evidence to demonstrate compliance may include:
Participation in development activities related to teaching, learning, and assessment
Attendance at regional and national meetings that address contemporary issues in education and patient care
Mentored experiences for new faculty
Scholarly productivity
Presentations at regional and national meetings
Examples of curriculum innovation
Maintenance of existing and development of new and/or emerging clinical skills
Documented understanding of relevant aspects of teaching methodology
Curriculum design and development
Curriculum evaluation
Resident assessment
Cultural Competency
Ability to work with residents of varying ages and backgrounds
Use of technology in didactic and clinical components of the curriculum
Evidence of participation in continuing education activities

3-9 The program **must** provide ongoing faculty calibration at all sites where educational activity occurs.

Intent: *Faculty calibration should be defined by the program.*

Examples of evidence to demonstrate compliance may include:
Methods used to calibrate faculty as defined by the program
Attendance of faculty meetings where calibration is discussed
Mentored experiences for new faculty
Participation in program assessment
Standardization of assessment of resident
Maintenance of existing and development of new and/or emerging clinical skills
Documented understanding of relevant aspects of teaching methodology
Curriculum design, development and evaluation
Evidence of the ability to work with residents of varying ages and backgrounds
Evidence that rotation goals and objectives have been shared

STANDARD 4 – EDUCATIONAL SUPPORT SERVICES

4-1 The sponsoring institution **must** provide adequate and appropriately maintained facilities and learning resources to support the goals and objectives of the program.

Intent: *The facilities should permit the attainment of program goals and objectives. Clinical facilities suitable for privacy for patients should be specifically identified for the orofacial pain program. Library resources that include dental resources should be available. Resource facilities should include access to computer, photographic, and audiovisual resources for educational, administrative, and research support. Equipment for handling medical emergencies and current medications for treating medical emergencies should be readily accessible. "Readily accessible" does not necessarily mean directly in the dental clinic. Protocols for handling medical emergencies should be developed and communicated to all staff in patient care areas.*

Examples of evidence to demonstrate compliance may include:
Description of facilities

4-2 There **must** be provision for a conference area separated from the clinic for rounds discussion and case presentations, sufficient to accommodate the multidisciplinary team.

4-3 Dental and medical laboratory, dental and medical imaging, and resources for psychometric interpretation **must** be accessible for use by the orofacial pain program.

4-4 Lecture, seminar, study space, and administrative office space **must** be available to conduct the educational program.

Selection of Residents

4-5 Applicants **must** have one of the following qualifications to be eligible to enter the advanced dental education program in orofacial pain:

a. Graduates from a predoctoral dental education program accredited by the Commission on Dental Accreditation;

b. Graduates from a predoctoral dental education program in Canada accredited by the Commission on Dental Accreditation of Canada; and

c. Graduates from an international dental school with equivalent educational background and standing as determined by the institution and program.

4-6 Specific written criteria, policies and procedures **must** be followed when admitting residents.

Intent: *Written non-discriminatory policies are to be followed in selecting residents. These policies should make clear the methods and criteria used in recruiting and selecting residents and how applicants are informed of their status throughout the selection process.*

Examples of evidence to demonstrate compliance may include:
Written admission criteria, policies and procedures

4-7 Admission of residents with advanced standing **must** be based on the same standards of achievement required by residents regularly enrolled in the program. Residents with advanced standing **must** receive an appropriate curriculum that results in the same standards of competence required by residents regularly enrolled in the program.

Intent*: Advanced standing refers to applicants that may be considered for admission to a training program whose curriculum has been modified after taking into account the applicant's past experience. Examples include transfer from a similar program at another institution, completion of training at a non-CODA accredited program, or documented practice experience in the given discipline. Acceptance of advanced standing residents will not result in an increase of the program's approved number of enrollees. Applicants for advanced standing are expected to fulfill all of the admission requirements mandated for residents in the conventional program and be held to the same academic standards. Advanced standing residents, to be certified for completion, are expected to demonstrate the same standards of competence as those in the conventional program.*

Examples of evidence to demonstrate compliance may include:
Written policies and procedures on advanced standing
Results of appropriate qualifying examinations
Course equivalency or other measures to demonstrate equal scope and level of knowledge

4-8 The program's description of the educational experience to be provided **must** be available to program applicants and include:

a. a description of the educational experience to be provided;
b. a list of program goals and objectives; and
c. a description of the nature of assignments to other departments or institutions.

Intent: *This includes applicants who may not personally visit the program and applicants who are deciding which programs to apply to. Materials available to applicants who visit the program in person will not satisfy this requirement. A means of making this information available to individuals who do not visit the program is to be developed.*

Examples of evidence to demonstrate compliance may include:
Brochure or application documents

Program's website
Description of system for making information available to applicants who do not visit the program

Due Process

4-9 There **must** be specific written due process policies and procedures for adjudication of academic and disciplinary complaints that parallel those established by the sponsoring institution.

Intent: *Adjudication procedures should include institutional policy that provides due process for all individuals who may be potentially involved when actions are contemplated or initiated that could result in dismissal of a resident. Residents should be provided with written information that affirms their obligations and responsibilities to the institution, the program and the faculty. The program information provided to the residents should include, but not necessarily be limited to, information about tuition, stipend or other compensation, vacation and sick leave, practice privileges and other activity outside the educational program, professional liability coverage, due process policy, and current accreditation status of the program.*

Examples of evidence to demonstrate compliance may include:
Written policy statements and/or resident contract

Health Services

4-10 Residents, faculty and appropriate support staff **must** be encouraged to be immunized against and/or tested for infectious diseases, such as mumps, measles, rubella and hepatitis B, prior to contact with patients and/or infectious objects or materials, in an effort to minimize the risk of patients and dental personnel.

Examples of evidence to demonstrate compliance may include:
Immunization policy and procedure documents

STANDARD 5 – PATIENT CARE SERVICES

5-1 The program **must** ensure the availability of patient experiences that afford all residents the opportunity to achieve the program's written goals and objectives or competencies for resident training.

Intent*: Patient experiences should include evaluation and management of head and neck musculoskeletal disorders, neurovascular pain, neuropathic pain, sleep-related disorders, and oromandibular movement disorders.*

Examples of evidence to demonstrate compliance may include:
Written goals and objectives or competencies for resident training
Records of resident clinical activity, including specific details on the variety and type and quantity of cases treated and procedures performed

5-2 Patient records **must** be organized in a manner that facilitates ready access to essential data and be sufficiently legible and organized so that all users can readily interpret the contents.

Intent: *Essential data is defined by the program and based on the information included in the record review process as well as that which meets the multidisciplinary educational needs of the program. The patient record should include a diagnostic problem list, use of pain assessment and treatment contracts, progress sheets, medication log, and outcome data, plus conform to SOAP notes format.*

The program is expected to develop a description of the contents and organization of patient records and a system for reviewing records.

Examples of evidence to demonstrate compliance may include:
Patient records
Record review plan
Documentation of record reviews

5-3 The program **must** conduct and involve residents in a structured system of continuous quality improvement for patient care.

Intent: *Programs are expected to involve residents in enough quality improvement activities to understand the process and contribute to patient care improvement.*

Examples of evidence to demonstrate compliance may include:
Description of quality improvement process including the role of residents in that process
Quality improvement plan and reports

5-4 All residents, faculty, and support staff involved in the direct provision of patient care **must** be continuously recognized/certified in basic life support procedures, including cardiopulmonary resuscitation.

Intent: *ACLS and PALS are not a substitute for BLS certification.*

Examples of evidence to demonstrate compliance may include:
Certification/recognition records demonstrating basic life support training or summary log of certification/recognition maintained by the program
Exemption documentation for anyone who is medically or physically unable to perform such services

5-5 The program **must** document its compliance with the institution's policy and applicable regulations of local, state and federal agencies, including, but not limited to, radiation hygiene and protection, ionizing radiation, hazardous materials, and blood-borne and infectious diseases. Polices **must** be provided to all residents, faculty and appropriate support staff and continuously monitored for compliance. Additionally, policies on blood-borne and infectious diseases **must** be made available to applicants for admission and patients.

Intent: *The policies on blood-borne and infectious diseases should be made available to applicants for admission and patients should a request to review the policy be made.*

Examples of evidence to demonstrate compliance may include:
Infection and biohazard control policies
Radiation policy

5-6 The program's policies **must** ensure that the confidentiality of information pertaining to the health status of each individual patient is strictly maintained.

Examples of evidence to demonstrate compliance may include:
Confidentiality policies

STANDARD 6 - RESEARCH

6-1 Residents **must** engage in research or other scholarly activity and present their results in a scientific/educational forum.

Intent: *The research experience and its results should be compiled into a document or publication*

AMERICAN DENTAL ASSOCIATION POLICY STATEMENT: THE USE OF SEDATION AND GENERAL ANESTHESIA BY DENTISTS

Introduction

The administration of sedation and general anesthesia has been an integral part of dental practice since the 1840s. Dentists have a legacy and a continuing interest and expertise in providing anesthetic and sedative care to their patients. It was the introduction of nitrous oxide by Horace Wells, a Hartford, Connecticut dentist, and the demonstration of anesthetic properties of ether by William Morton, Wells' student, that gave the gift of anesthesia to medicine and dentistry. Dentistry has continued to build upon this foundation and has been instrumental in developing safe and effective sedative and anesthetic techniques that have enabled millions of people to access dental care. Without these modalities, many patient populations such as young children, physically and mentally challenged individuals and many other dental patients could not access the comprehensive care that relieves pain and restores form and function. The use of sedation and anesthesia by appropriately trained dentists in the dental office continues to have a remarkable record of safety. It is very important to understand that anxiety, cooperation and pain can be addressed by both psychological and pharmacological techniques and local anesthetics, which are the foundation of pain control in dentistry. Sedation may diminish fear and anxiety, but do not obliterate the pain response and therefore, expertise and in-depth knowledge of local anesthetic techniques and pharmacology is necessary. General anesthesia, by definition, produces an unconscious state totally obtunding the pain response.

Anxiety and pain can be modified by both psychological and pharmacological techniques. In some instances, psychological approaches are sufficient. However, in many instances, pharmacological approaches are required.

Local anesthetics are used to control regional pain. Sedative drugs and techniques may control fear and anxiety, but do not by themselves fully control pain and, thus, are commonly used in conjunction with local anesthetics. General anesthesia provides complete relief from both anxiety and pain.

This policy statement addresses the use of minimal, moderate and deep sedation and general anesthesia, as defined in the Association's *Guidelines for the Use of Sedation and General Anesthesia by Dentists.* These terms refer to the effects upon the central nervous system and are not dependent upon the route of administration.

The use of sedation and general anesthesia in dentistry is safe and effective when properly administered by trained individuals. The American Dental Association strongly supports the right of appropriately trained dentists to use these modalities in the treatment of dental patients and is committed to their safe and effective use.

Education

Training to competency in minimal and moderate sedation techniques may be acquired at the predoctoral, postgraduate, graduate, or continuing education level. Dentists who wish to utilize minimal or moderate sedation are expected to successfully complete formal training which is structured in accordance with the Association's *Guidelines for Teaching Pain Control and Sedation for to Dentists and Dental Students.* The knowledge and skills required for the administration of deep sedation and general anesthesia are beyond the scope of predoctoral and continuing education. Only dentists who have completed an advanced education program accredited by the Commission on Dental Accreditation (CODA) that provides training in deep sedation and general anesthesia are considered educationally qualified to use these modalities in practice. The dental profession's continued ability to control anxiety and pain effectively is dependent on a strong educational foundation in the discipline. The Association supports efforts to expand the availability of courses and programs at the predoctoral, advanced and continuing educational levels that are structured in accordance with its *Guidelines for Teaching Pain Control and*

Sedation to Dentists and Dental Students. The ADA urges dental practitioners to regularly participate in continuing education in the areas of sedation and anesthesia.

Safe Practice

Dentists administering sedation and anesthesia should be familiar with the ADA *Guidelines for the Use of Sedation and General Anesthesia by Dentists*. Dentists who are qualified to utilize sedation and general anesthesia have a responsibility to minimize risk to patients undergoing dental treatment by:

- Using only those drugs and techniques in which they have been appropriately trained;
- Limiting use of these modalities to patients who require them;
- Conducting a preoperative evaluation of each patient consisting of at least a thorough review of medical and dental history, a focused clinical examination and consultation, when indicated, with appropriate medical and dental personnel;
- Conducting physiologic and visual monitoring of the patient;
- Having available appropriate emergency drugs, equipment and facilities and maintaining competency in their use;
- Maintaining fully documented records of drugs used, dosage, vital signs monitored, adverse reactions, recovery from the anesthetic, and, if applicable, emergency procedures employed;
- Utilizing sufficient support personnel who are properly trained for the functions they are assigned to perform;
- Treating high-risk patients in a setting equipped to provide for their care.

The Association expects that patient safety will be the foremost consideration of dentists who use sedation and general anesthesia.

State Regulation

Appropriate permitting of dentists utilizing moderate sedation, deep sedation and general anesthesia is highly recommended. State dental boards have the responsibility to ensure that only qualified dentists use sedation and general anesthesia. State boards set acceptable standards for safe and appropriate delivery of sedation and anesthesia care, as outlined in this policy and in the ADA *Guidelines for the Use of Sedation and General Anesthesia by Dentists.*

The Association recognizes that office-based, ambulatory sedation and anesthesia play an integral role in the management of anxiety and pain control for dental patients. It is in the best interest of the public and the profession that access to these cost-effective services be widely available.

Research

The use of minimal, moderate and deep sedation and general anesthesia in dentistry will be significantly affected by research findings and advances in these areas. The Association strongly supports the expansion of both basic and clinical research in anxiety and pain control. It urges institutions and agencies that fund and sponsor research to place a high priority on this type of research, which should include: 1) epidemiological studies that provide data on the number of these procedures performed and on morbidity and mortality rates, 2) clinical studies of drug safety and efficacy, 3) basic research on the development of safer and more effective drugs and techniques, 4) studies on improving patient monitoring, and 5) research on behavioral and other non-pharmacological approaches to anxiety and pain control.

Adopted by the ADA House of Delegates (*Trans*.2007:384)

ADA American Dental Association®

Guidelines for the Use of Sedation and General Anesthesia by Dentists

Adopted by the ADA House of Delegates, October 2016

I. Introduction

The administration of local anesthesia, sedation and general anesthesia is an integral part of dental practice. The American Dental Association is committed to the safe and effective use of these modalities by appropriately educated and trained dentists. The purpose of these guidelines is to assist dentists in the delivery of safe and effective sedation and anesthesia.

Dentists must comply with their state laws, rules and/or regulations when providing sedation and anesthesia and will only be subject to Section III. Educational Requirements as required by those state laws, rules and/or regulations.

Level of sedation is entirely independent of the route of administration. Moderate and deep sedation or general anesthesia may be achieved via any route of administration and thus an appropriately consistent level of training must be established.

For children, the American Dental Association supports the use of the American Academy of Pediatrics/American Academy of Pediatric Dentistry Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures and the American Dental Association's Council on Dental Education and Licensure's 2021 Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students.

II. Definitions

Methods of Anxiety and Pain Control

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.[1]

Patients whose only response is reflex withdrawal from repeated painful stimuli would not be considered to be in a state of minimal sedation.

The following definitions apply to administration of minimal sedation:

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

dosing for minimal sedation via the enteral route – minimal sedation may be achieved by the administration of a drug, either singly or in divided doses, by the enteral route to achieve the desired clinical effect, not to exceed the maximum recommended dose (MRD).

The administration of enteral drugs exceeding the maximum recommended dose during a single appointment is considered to be moderate sedation and the moderate sedation guidelines apply.

Nitrous oxide/oxygen when used in combination with sedative agent(s) may produce minimal, moderate, deep sedation or general anesthesia.

If more than one enteral drug is administered to achieve the desired sedation effect, with or without the concomitant use of nitrous oxide, the guidelines for moderate sedation must apply.

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

moderate sedation - a drug-induced depression of consciousness during which patients respond *purposefully* to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.[1]

> *Note*: 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. Further, a patient whose only response is reflex withdrawal from a painful stimulus is not considered to be in a state of moderate sedation.

The following definition applies to the administration of moderate or greater sedation:

> *titration* - administration of incremental doses of an intravenous or inhalation drug until a desired effect is reached. Knowledge of each drug's time of onset, peak response and duration of action is essential to avoid over sedation. Although the concept of titration of a drug to effect is critical for patient safety, when the intent is moderate sedation one must know whether the previous dose has taken full effect before administering an additional drug increment.

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.[1]

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.

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 diagnose and manage the physiologic consequences (rescue) for patients whose level of sedation becomes deeper than initially intended.[1]

For all levels of sedation, the qualified dentist must have the training, skills, drugs and 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, sublingual].

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, sublingual, or 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.

Terms

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: Although the use of local anesthetics is the foundation of pain control in dentistry and has a long record of safety, dentists must be aware of the maximum, safe dosage limits for each patient. Large doses of local anesthetics in themselves may result in central nervous system depression, especially in combination with sedative agents.

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

operating dentist – dentist with primary responsibility for providing operative dental care while a qualified dentist or independently practicing qualified anesthesia healthcare provider administers minimal, moderate or deep sedation or general anesthesia.

competency – displaying special skill or knowledge derived from training and experience.

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

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

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

continual - repeated regularly and frequently in a steady succession.

continuous - prolonged without any interruption at any time.

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

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

American Society of Anesthesiologists (ASA) Patient Physical Status Classification[2]

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)

American Society of Anesthesiologists Fasting Guidelines[3]

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

III. Educational Requirements

A. Minimal Sedation

1. To administer minimal sedation the dentist must demonstrate competency by having successfully completed:
   a. training in minimal sedation consistent with that prescribed in the ADA *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students*,

   or

   b. comprehensive training in moderate sedation that satisfies the requirements described in the Moderate Sedation section of the *ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* at the time training was commenced,

   or

   c. an advanced education program accredited by the Commission on Dental Accreditation that affords comprehensive and appropriate training necessary to administer and manage minimal sedation commensurate with these guidelines;

   and

   d. a current certification in Basic Life Support for Healthcare Providers.
2. Administration of minimal sedation by another qualified dentist or independently practicing qualified anesthesia healthcare provider requires the operating dentist and his/her clinical staff to maintain current certification in Basic Life Support for Healthcare Providers.

B. Moderate Sedation

1. To administer moderate sedation, the dentist must demonstrate competency by having successfully completed:
   a. a comprehensive training program in moderate sedation that satisfies the requirements described in the Moderate Sedation section of the ADA *Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students* at the time training was commenced,

   or

   b. an advanced education program accredited by the Commission on Dental Accreditation that affords comprehensive and appropriate training necessary to administer and manage moderate sedation commensurate with these guidelines;

   and

c. 1) A current certification in Basic Life Support for Healthcare Providers and

2) Either current certification in Advanced Cardiac Life Support (ACLS or equivalent) or completion of an appropriate dental sedation/anesthesia emergency management course on the same recertification cycle that is required for ACLS.

2. Administration of moderate sedation by another qualified dentist or independently practicing qualified anesthesia healthcare provider requires the operating dentist and his/her clinical staff to maintain current certification in Basic Life Support for Healthcare Providers.

C. Deep Sedation or General Anesthesia

1. To administer deep sedation or general anesthesia, the dentist must demonstrate competency by having completed:
a. An advanced education program accredited by the Commission on Dental Accreditation that affords comprehensive and appropriate training necessary to administer and manage deep sedation or general anesthesia, commensurate with Part IV.C of these guidelines;

and

b. 1) A current certification in Basic Life Support for Healthcare Providers and

2) either current certification in Advanced Cardiac Life Support (ACLS or equivalent) or completion of an appropriate dental sedation/anesthesia emergency management course on the same re-certification cycle that is required for ACLS.

2. Administration of deep sedation or general anesthesia by another qualified dentist or independently practicing qualified anesthesia healthcare provider requires the operating dentist and his/her clinical staff to maintain current certification in Basic Life Support (BLS) Course for the Healthcare Provider.

IV. Clinical Guidelines

A. Minimal sedation

1. Patient History and Evaluation

Patients considered for minimal sedation must be suitably evaluated prior to the start of any sedative procedure. In healthy or medically stable individuals (ASA I, II) this should consist of a review of their current medical history and medication use. In addition, patients with significant medical considerations (ASA III, IV) may require consultation with their primary care physician or consulting medical specialist.

2. Pre-Operative Evaluation and Preparation

- The patient, parent, legal guardian or care giver must be advised regarding the procedure associated with the delivery of any sedative agents and informed consent for the proposed sedation must be obtained.
- Determination of adequate oxygen supply and equipment necessary to deliver oxygen under positive pressure must be completed.
- An appropriate focused physical evaluation should be performed.
- Baseline vital signs including body weight, height, blood pressure, pulse rate, and respiration rate must be obtained unless invalidated by the nature of the patient, procedure or equipment. Body temperature should be measured when clinically indicated.
- Preoperative dietary restrictions must be considered based on the sedative technique prescribed.
- Pre-operative verbal and written instructions must be given to the patient, parent, escort, legal guardian or care giver.

3. Personnel and Equipment Requirements

Personnel:

- At least one additional person trained in Basic Life Support for Healthcare Providers must be present in addition to the dentist.

Equipment:

- A positive-pressure oxygen delivery system suitable for the patient being treated must be immediately available.
- Documentation of compliance with manufacturers' recommended maintenance of monitors, anesthesia delivery systems, and other anesthesia-related equipment should be maintained. A pre-procedural check of equipment for each administration of sedation must be performed.
- When inhalation equipment is used, it must have a fail-safe system that is appropriately checked and calibrated. The equipment must also have either (1) a functioning device that prohibits the delivery of less than 30% oxygen or (2) an appropriately calibrated and functioning in-line oxygen analyzer with audible alarm.
- An appropriate scavenging system must be available if gases other than oxygen or air are used.

4. Monitoring and Documentation

Monitoring: A dentist, or at the dentist's direction, an appropriately trained individual, must remain in the operatory during active dental treatment to monitor the patient continuously until the patient meets ~~the~~ criteria for discharge to the recovery area. The appropriately trained individual must be familiar with monitoring techniques and equipment. Monitoring must include:

Consciousness:

- Level of sedation (e.g., responsiveness to verbal commands) must be continually assessed.

Oxygenation:

- Oxygen saturation by pulse oximetry may be clinically useful and should be considered.

Ventilation:

- The dentist and/or appropriately trained individual must observe chest excursions.
- The dentist and/or appropriately trained individual must verify respirations.

Circulation:

- Blood pressure and heart rate should be evaluated pre-operatively, post-operatively and intraoperatively as necessary (unless the patient is unable to tolerate such monitoring).

Documentation: An appropriate sedative record must be maintained, including the names of all drugs administered, time administered and route of administration, including local anesthetics, dosages, and monitored physiological parameters.

5. Recovery and Discharge

- Oxygen and suction equipment must be immediately available if a separate recovery area is utilized.
- The qualified dentist or appropriately trained clinical staff must monitor the patient during recovery until the patient is ready for discharge by the dentist.
- The qualified dentist must determine and document that level of consciousness, oxygenation, ventilation and circulation are satisfactory prior to discharge.
- Post-operative verbal and written instructions must be given to the patient, parent, escort, legal guardian or care giver.

6. Emergency Management

- If a patient enters a deeper level of sedation than the dentist is qualified to provide, the dentist must stop the dental procedure until the patient returns is returned to the intended level of sedation.
- The qualified dentist is responsible for the sedative management, adequacy of the facility and staff, diagnosis and treatment of emergencies related to the administration of minimal sedation and providing the equipment and protocols for patient rescue.

B. Moderate Sedation

1. Patient History and Evaluation

Patients considered for moderate sedation must undergo an evaluation prior to the administration of any sedative. This should consist of at least a review at an appropriate time of their medical history and medication use and NPO (nothing by mouth) status. In addition, patients with significant medical considerations (e.g., ASA III, IV) should also require consultation with their primary care physician or consulting medical specialist. Assessment of Body Mass Index (BMI)[4] should be considered part of a pre-procedural workup. Patients with elevated BMI may be at increased risk for airway associated morbidity, particularly if in association with other factors such as obstructive sleep apnea.

2. Pre-operative Evaluation and Preparation

- The patient, parent, legal guardian or care giver must be advised regarding the procedure associated with the delivery of any sedative agents and informed consent for the proposed sedation must be obtained.
- Determination of adequate oxygen supply and equipment necessary to deliver oxygen under positive pressure must be completed.
- An appropriate focused physical evaluation must be performed.
- Baseline vital signs including body weight, height, blood pressure, pulse rate, respiration rate, and blood oxygen saturation by pulse oximetry must be obtained unless precluded by the nature of the patient, procedure or equipment. Body temperature should be measured when clinically indicated.
- Pre-operative verbal or written instructions must be given to the patient, parent, escort, legal guardian or care giver, including pre-operative fasting instructions based on the ASA Summary of Fasting and Pharmacologic Recommendations.

3. Personnel and Equipment Requirements

Personnel:

- At least one additional person trained in Basic Life Support for Healthcare Providers must be present in addition to the dentist.

Equipment:

- A positive-pressure oxygen delivery system suitable for the patient being treated must be immediately available.
- Documentation of compliance with manufacturers' recommended maintenance of monitors, anesthesia delivery systems, and other anesthesia-related equipment should be maintained. A pre-procedural check of equipment for each administration of sedation must be performed.
- When inhalation equipment is used, it must have a fail-safe system that is appropriately checked and calibrated. The equipment must also have either (1) a functioning device that prohibits the delivery of less than 30% oxygen or (2) an appropriately calibrated and functioning in-line oxygen analyzer with audible alarm.
- The equipment necessary for monitoring end-tidal CO_2 and auscultation of breath sounds must be immediately available.
- An appropriate scavenging system must be available if gases other than oxygen or air are used.
- The equipment necessary to establish intravascular or intraosseous access should be available until the patient meets discharge criteria.

4. Monitoring and Documentation

Monitoring: A qualified dentist administering moderate sedation must remain in the operatory room to monitor the patient continuously until the patient meets the criteria for recovery. When active treatment concludes and the patient recovers to a minimally sedated level a qualified auxiliary may be directed by the dentist to remain with the patient and continue to monitor them as explained in the guidelines until they are discharged from the facility. The dentist must not leave the facility until the patient meets the criteria for discharge and is discharged from the facility. Monitoring must include:

Consciousness:

- Level of sedation (e.g., responsiveness to verbal command) must be continually assessed.

Oxygenation:

- Oxygen saturation must be evaluated by pulse oximetry continuously.

Ventilation:

- The dentist must observe chest excursions continually.
- The dentist must monitor ventilation and/or breathing by monitoring end-tidal CO_2 unless precluded or invalidated by the nature of the patient, procedure or equipment. In addition, ventilation should be monitored by continual observation of qualitative signs, including auscultation of breath sounds with a precordial or pretracheal stethoscope.

Circulation:

- The dentist must continually evaluate blood pressure and heart rate unless invalidated by the nature of the patient, procedure or equipment and this is noted in the time-oriented anesthesia record.
- Continuous ECG monitoring of patients with significant cardiovascular disease should be considered.

Documentation:

- Appropriate time-oriented anesthetic record must be maintained, including the names of all drugs, dosages and their administration times, including local anesthetics, dosages and monitored physiological parameters.
- Pulse oximetry, heart rate, respiratory rate, blood pressure and level of consciousness must be recorded continually.

5. Recovery and Discharge

- Oxygen and suction equipment must be immediately available if a separate recovery area is utilized.
- The qualified dentist or appropriately trained clinical staff must continually monitor the patient's blood pressure, heart rate, oxygenation and level of consciousness.
- The qualified dentist must determine and document that level of consciousness; oxygenation, ventilation and circulation are satisfactory for discharge.
- Post-operative verbal and written instructions must be given to the patient, parent, escort, legal guardian or care giver.
- If a pharmacological reversal agent is administered before discharge criteria have been met, the patient must be monitored for a longer period than usual before discharge, since re-sedation may occur once the effects of the reversal agent have waned.

6. Emergency Management

- If a patient enters a deeper level of sedation than the dentist is qualified to provide, the dentist must stop the dental procedure until the patient is returned to the intended level of sedation.
- The qualified dentist is responsible for the sedative management, adequacy of the facility and staff, diagnosis and treatment of emergencies related to the administration of moderate sedation and providing the equipment, drugs and protocol for patient rescue.

C. Deep Sedation or General Anesthesia

1. Patient History and Evaluation

Patients considered for deep sedation or general anesthesia must undergo an evaluation prior to the administration of any sedative. This must consist of at least a review of their medical history and medication use and NPO (nothing by mouth) status. In addition, patients with significant medical considerations (e.g., ASA III, IV) should also require consultation with their primary care physician or consulting medical specialist. Assessment of Body Mass Index (BMI)[4] should be considered part of a pre-procedural workup. Patients with elevated BMI may be at increased risk for airway associated morbidity, particularly if in association with other factors such as obstructive sleep apnea.

2. Pre-operative Evaluation and Preparation

- The patient, parent, legal guardian or care giver must be advised regarding the procedure associated with the delivery of any sedative or anesthetic agents and informed consent for the proposed sedation/anesthesia must be obtained.
- Determination of adequate oxygen supply and equipment necessary to deliver oxygen under positive pressure must be completed.
- A focused physical evaluation must be performed as deemed appropriate.
- Baseline vital signs including body weight, height, blood pressure, pulse rate, respiration rate, and blood oxygen saturation by pulse oximetry must be obtained unless invalidated by the patient, procedure or equipment. In addition, body temperature should be measured when clinically appropriate.
- Pre-operative verbal and written instructions must be given to the patient, parent, escort, legal guardian or care giver, including pre-operative fasting instructions based on the ASA Summary of Fasting and Pharmacologic Recommendations.
- An intravenous line, which is secured throughout the procedure, must be established except as provided in part IV. C.6. Special Needs Patients.

3. Personnel and Equipment Requirements

Personnel: A minimum of three (3) individuals must be present.

- A dentist qualified in accordance with part III. C. of these Guidelines to administer the deep sedation or general anesthesia.
- Two additional individuals who have current certification of successfully completing a Basic Life Support (BLS) Course for the Healthcare Provider.
- When the same individual administering the deep sedation or general anesthesia is performing the dental procedure, one of the additional appropriately trained team members must be designated for patient monitoring.

Equipment:

- A positive-pressure oxygen delivery system suitable for the patient being treated must be immediately available.
- Documentation of compliance with manufacturers' recommended maintenance of monitors, anesthesia delivery systems, and other anesthesia-related equipment should be maintained. A pre-procedural check of equipment for each administration must be performed.
- When inhalation equipment is used, it must have a fail-safe system that is appropriately checked and calibrated. The equipment must also have either (1) a functioning device that prohibits the delivery of less than 30% oxygen or (2) an appropriately calibrated and functioning in-line oxygen analyzer with audible alarm.
- An appropriate scavenging system must be available if gases other than oxygen or air are used.
- The equipment necessary to establish intravenous access must be available.
- Equipment and drugs necessary to provide advanced airway management, and advanced cardiac life support must be immediately available.
- The equipment necessary for monitoring end-tidal CO_2 and auscultation of breath sounds must be immediately available.
- Resuscitation medications and an appropriate defibrillator must be immediately available.

4. Monitoring and Documentation

Monitoring: A qualified dentist administering deep sedation or general anesthesia must remain in the operatory room to monitor the patient continuously until the patient meets the criteria for recovery. The dentist must not leave the facility until the patient meets the criteria for discharge and is discharged from the facility. Monitoring must include:

Oxygenation:

- Oxygenation saturation must be evaluated continuously by pulse oximetry.

Ventilation:

- Intubated patient: End-tidal CO_2 must be continuously monitored and evaluated.
- Non-intubated patient: End-tidal CO_2 must be continually monitored and evaluated unless precluded or invalidated by the nature of the patient, procedure, or equipment. In addition, ventilation should be monitored and evaluated by continual observation of qualitative signs, including auscultation of breath sounds with a precordial or pretracheal stethoscope.
- Respiration rate must be continually monitored and evaluated.

Circulation:

- The dentist must continuously evaluate heart rate and rhythm via ECG throughout the procedure, as well as pulse rate via pulse oximetry.
- The dentist must continually evaluate blood pressure.

Temperature:

- A device capable of measuring body temperature must be readily available during the administration of deep sedation or general anesthesia.
- The equipment to continuously monitor body temperature should be available and must be performed whenever triggering agents associated with malignant hyperthermia are administered.

Documentation:

- Appropriate time-oriented anesthetic record must be maintained, including the names of all drugs, dosages and their administration times, including local anesthetics and monitored physiological parameters.
- Pulse oximetry and end-tidal CO_2 measurements (if taken), heart rate, respiratory rate and blood pressure must be recorded continually.

5. Recovery and Discharge

- Oxygen and suction equipment must be immediately available if a separate recovery area is utilized.
- The dentist or clinical staff must continually monitor the patient's blood pressure, heart rate, oxygenation and level of consciousness.
- The dentist must determine and document that level of consciousness; oxygenation, ventilation and circulation are satisfactory for discharge.
- Post-operative verbal and written instructions must be given to the patient~~,~~ and parent, escort, guardian or care giver.

6. Special Needs Patients

Because many dental patients undergoing deep sedation or general anesthesia are mentally and/or physically challenged, it is not always possible to have a comprehensive physical examination or appropriate laboratory tests prior to administering care. When these situations occur, the dentist responsible for administering the deep sedation or general anesthesia should document the reasons preventing the recommended preoperative management.

In selected circumstances, deep sedation or general anesthesia may be utilized without establishing an indwelling intravenous line. These selected circumstances may include very brief procedures or periods of time, which, for example, may occur in some patients; or the establishment of intravenous access after deep sedation or general anesthesia has been induced because of poor patient cooperation.

7. Emergency Management

405 The qualified dentist is responsible for sedative/anesthetic management, adequacy of the facility and staff,
406 diagnosis and treatment of emergencies related to the administration of deep sedation or general
407 anesthesia and providing the equipment, drugs and protocols for patient rescue.

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1 Excerpted from Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia, 2014, of the American Society of Anesthesiologists (ASA)
2 ASA Physical Status Classification System is reprinted with permission of the American Society of Anesthesiologists, Updated by ASA House of Delegates, October 15, 2014.
3 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. 2011. Reprinted with permission.
4 Standardized BMI category definitions can be obtained from the Centers for Disease Control and Prevention or the American Society of Anesthesiologists.

ADA American Dental Association®

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

Adopted by the ADA House of Delegates, October 2016

I. Introduction

The administration of local anesthesia, sedation and general anesthesia is an integral part of the practice of dentistry. The American Dental Association 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, chemical and psychological modalities to 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. The intent of these *Guidelines* is to provide direction for the teaching of pain control and sedation to dentists and can be applied at all levels of dental education from predoctoral through continuing education. They are designed to teach initial competency in pain control and minimal and moderate sedation techniques.

These *Guidelines* recognize that many dentists have acquired a high degree of competency in the use of anxiety and pain control techniques through a combination of instruction and experience. It is assumed that this has enabled these teachers and practitioners to meet the educational criteria described in this document.

It is not the intent of the *Guidelines* to fit every program into the same rigid educational mold. This is neither possible nor desirable. There must always be room for innovation and improvement. They do, however, provide a reasonable measure of program acceptability, applicable to all institutions and agencies engaged in predoctoral and continuing education.

The curriculum in anxiety and pain control is a continuum of educational experiences that will extend over several years of the predoctoral program. It should provide the dental student with the knowledge and skills necessary to provide minimal sedation to alleviate anxiety and control pain without inducing detrimental physiological or psychological side effects. Dental schools whose goal is to have predoctoral students achieve competency in techniques such as local anesthesia and nitrous oxide inhalation and minimal sedation must meet all of the goals, prerequisites, didactic content, clinical experiences, faculty and facilities, as described in these *Guidelines.*

Techniques for the control of anxiety and pain in dentistry should include both psychological and pharmacological modalities. Psychological strategies should include simple relaxation techniques for the anxious patient and more comprehensive behavioral techniques to control pain. Pharmacological strategies should include not only local anesthetics but also sedatives, analgesics and other useful agents. Dentists should learn indications and techniques for administering these drugs enterally, parenterally and by inhalation as supplements to local anesthesia.

The predoctoral curriculum should provide instruction, exposure and/or experience in anxiety and pain control, including minimal and moderate sedation. The predoctoral program must also provide the knowledge and skill to enable students to recognize and manage any emergencies that might arise as a consequence of treatment. Predoctoral dental students must complete a course in Basic Life Support for the Healthcare Provider. Though Basic Life Support courses are available online, any course taken online should be followed up with a hands-on component and be approved by the American Heart Association or the American Red Cross.

Local anesthesia is the foundation of pain control in dentistry. Although the use of local anesthetics in dentistry has a long record of safety, dentists must be aware of the maximum safe dosage limit for each patient, since large doses of local anesthetics may increase the level of central nervous system depression with sedation. The use of minimal and moderate sedation requires an understanding of local anesthesia and the physiologic and pharmacologic implications of the local anesthetic agents when combined with the sedative agents.

Level of sedation is entirely independent of the route of administration. Moderate and deep sedation or general anesthesia may be achieved via any route of administration and thus an appropriately consistent level of training must be established.

For children, the American Dental Association supports the use of the American Academy of Pediatrics/American Academy of Pediatric Dentistry Guidelines for Monitoring and Management of Pediatric Patients During and After Sedation for Diagnostic and Therapeutic Procedures and the American Dental Association's Council on Dental Education and Licensure's 2021 Guidelines for Teaching Pediatric Pain Control and Sedation to Dentists and Dental Students.

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 education programs that teach deep sedation and/or general anesthesia to competency have specific teaching requirements described in the Commission on Dental Accreditation requirements for those advanced programs and represent the educational and clinical requirements for teaching deep sedation and/or general anesthesia in dentistry.

The objective of educating dentists to utilize pain control, sedation and general anesthesia is to enhance their ability to provide oral health care. The American Dental Association urges dentists to participate regularly in continuing education update courses in these modalities in order to remain current.

All areas in which local anesthesia and sedation are being used must be properly equipped with suction, physiologic monitoring equipment, a positive pressure oxygen delivery system suitable for the patient being treated and emergency drugs. Protocols for the management of emergencies must be developed and training programs held at frequent intervals.

II. Definitions

Methods of Anxiety and Pain Control

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.[1]

Patients whose only response is reflex withdrawal from repeated painful stimuli would not be considered to be in a state of minimal sedation.

The following definitions apply to administration of minimal sedation:

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

dosing for minimal sedation via the enteral route – minimal sedation may be achieved by the administration of a drug, either singly or in divided doses, by the enteral route to achieve the desired clinical effect, not to exceed the maximum recommended dose (MRD).

The administration of enteral drugs exceeding the maximum recommended dose during a single appointment is considered to be moderate sedation and the moderate sedation guidelines apply.

Nitrous oxide/oxygen when used in combination with sedative agent(s) may produce minimal, moderate, deep sedation or general anesthesia.

If more than one enteral drug is administered to achieve the desired sedation effect, with or without the concomitant use of nitrous oxide, the guidelines for moderate sedation must apply.

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

moderate sedation - a drug-induced depression of consciousness during which patients respond *purposefully* to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.[1]

> *Note*: 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. Further, a patient whose only response is reflex withdrawal from a painful stimulus is not considered to be in a state of moderate sedation.

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

> *titration* - administration of incremental doses of an intravenous or inhalation drug until a desired effect is reached. Knowledge of each drug's time of onset, peak response and duration of action is essential to avoid over sedation. Although the concept of titration of a drug to effect is critical for patient safety, when the intent is moderate sedation one must know whether the previous dose has taken full effect before administering an additional drug increment.

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.[1]

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.[1]

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 diagnose and manage the physiologic consequences (rescue) for patients whose level of sedation becomes deeper than initially intended.[1]

For all levels of sedation, the qualified dentist must have the training, skills, drugs and 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, sublingual].

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, sublingual, or 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.

Terms

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: Although the use of local anesthetics is the foundation of pain control in dentistry and has a long record of safety, dentists must always be aware of the maximum, safe dosage limits for each patient. Large doses of local anesthetics in themselves may result in central nervous system depression especially in combination with sedative agents.

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

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

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

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

continual - repeated regularly and frequently in a steady succession.

continuous - prolonged without any interruption at any time.

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

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

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

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

competent - displaying special skill or knowledge derived from training and experience.

American Society of Anesthesiologists (ASA) Patient Physical Status Classification[2]

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)		

American Society of Anesthesiologists' Fasting Guidelines[3]

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

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 so that mastery of the subject is achieved. 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 Pain Control

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

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

1. have an in-depth knowledge of those aspects of anatomy, physiology, pharmacology and psychology involved in the use of various anxiety and pain control methods;

2. be competent in evaluating the psychological and physical status of the patient, as well as the magnitude of the operative procedure, 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;

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 and pain control and patient management, including the nature and purpose of pain
2. Review of physiologic and psychologic aspects of anxiety and pain
3. Review of 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 and anxiolytics
   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) Psychological status
      (2) ASA physical status
      (3) Type and extent of operative procedure
   b. Nonpharmacologic methods

(1) Psychological and behavioral methods
(a) Anxiety management
(b) Relaxation techniques
(c) Systematic desensitization
(2) Interpersonal strategies of patient management
(3) Hypnosis
(4) Electronic dental anesthesia
(5) Acupuncture/Acupressure
(6) Other

c. Local anesthesia
(1) Review of related anatomy, and physiology
(2) Pharmacology
(i) Dosing
(ii) Toxicity
(iii) Selection of agents
(3) Techniques of administration
(i) Topical
(ii) Infiltration (supraperiosteal)
(iii) Nerve block – maxilla-to include:
(aa) Posterior superior alveolar
(bb) Infraorbital
(cc) Nasopalatine
(dd) Greater palatine
(ee) Maxillary (2nd division)
(ff) Other blocks
(iv) Nerve block – mandible-to include:
(aa) Inferior alveolar-lingual
(bb) Mental-incisive
(cc) Buccal
(dd) Gow-Gates
(ee) Closed mouth
(v) Alternative injections-to include:
(aa) Periodontal ligament
(bb) 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 student ability, teaching methods and the anxiety and pain control modality taught.

Clinical experience in minimal and moderate sedation techniques should be related to various disciplines of dentistry and not solely limited to surgical cases. Typically, such experience will be provided in managing healthy adult patients.

Throughout both didactic and clinical instruction in anxiety and pain control, psychological management of the patient should also be stressed. Instruction should emphasize that the need for sedative techniques is directly related to the patient's level of anxiety, cooperation, medical condition and the planned procedures.

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

E. Facilities: Competency courses must be presented where adequate facilities are available for proper patient care, including drugs and equipment for the management of emergencies.

IV. Teaching Administration of Minimal Sedation

The faculty responsible for curriculum in minimal sedation techniques must be familiar with the ADA Policy Statement: *Guidelines for the Use of Sedation and General Anesthesia by Dentists*, and the Commission on Dental Accreditation's *Accreditation Standards* for dental education programs.

These *Guidelines* present a basic overview of the recommendations for teaching minimal sedation. These include courses in nitrous oxide/oxygen sedation, enteral sedation, and combined inhalation/enteral techniques.

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

1. Describe the adult anatomy and physiology of the respiratory, cardiovascular and central nervous systems, as they relate to the above techniques.
2. Describe the pharmacological effects of drugs.
3. Describe the methods of obtaining a medical history and conduct 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 minimal sedation.
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.

Inhalation Sedation (Nitrous Oxide/Oxygen)

A. Inhalation Sedation Course Objectives: 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 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.

B. Inhalation Sedation 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 adult 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 (i.e., 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. Prevention, recognition and management of complications and life-threatening situations.
12. Administration of local anesthesia in conjunction with inhalation sedation techniques.
13. Description, maintenance and use of inhalation sedation equipment.

14. Introduction to potential health hazards of trace anesthetics and proposed techniques for limiting occupational exposure.

15. Discussion of abuse potential.

C. Inhalation Sedation 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 hours* plus management of clinical dental cases, during which clinical competency in inhalation sedation technique is achieved. The 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 Inhalation Sedation 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.

E. Faculty: The course should be directed by a dentist or physician qualified by experience and training. This individual should possess an active permit or license to administer moderate sedation 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, and cardiologists and psychologists, should be encouraged.

A participant-faculty ratio of not more than ten-to-one when inhalation sedation is being used allows for adequate supervision during the clinical phase of instruction; a one-to-one ratio is recommended during the early state of participation.

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

F. Facilities: Competency courses must be presented where adequate facilities are available for proper patient care, including drugs and equipment for the management of emergencies.

Enteral and/or Combination Inhalation-Enteral Minimal Sedation

A. Enteral and/or Combination Inhalation-Enteral Minimal Sedation Course Objectives: Upon completion of a competency course in enteral and/or combination inhalation-enteral minimal 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 enteral and/or combination inhalation-enteral minimal sedation (combined minimal sedation).

4. List and discuss the indications and contraindications for the use of enteral and/or combination inhalation-enteral minimal sedation (combined minimal sedation).

5. List the complications associated with enteral and/or combination inhalation-enteral minimal sedation (combined minimal sedation).

6. Discuss the prevention, recognition and management of these complications.

7. Administer enteral and/or combination inhalation-enteral minimal sedation (combined minimal sedation) to patients in a clinical setting in a safe and effective manner.

8. Discuss the abuse potential, occupational hazards and other effects of enteral and inhalation agents.

9. Discuss the pharmacology of the enteral and inhalation drugs selected for administration.

10. Discuss the precautions, contraindications and adverse reactions associated with the enteral and inhalation drugs selected.

11. Describe a protocol for management of emergencies in the dental office and list and discuss the emergency drugs and equipment required for management of life-threatening situations.

12. Demonstrate the ability to manage life-threatening emergency situations, including current certification in Basic Life Support for Healthcare Providers.

13. Discuss the pharmacological effects of combined drug therapy, their implications and their management. Nitrous oxide/oxygen when used in combination with sedative agent(s) may produce minimal, moderate, deep sedation or general anesthesia.

B. Enteral and/or Combination Inhalation-Enteral Minimal Sedation 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 profiling.

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 adult respiratory and circulatory physiology and related anatomy.

6. Pharmacology of agents used in enteral and/or combination inhalation-enteral minimal sedation, including drug interactions and incompatibilities.

7. Indications and contraindications for use of enteral and/or combination inhalation-enteral minimal sedation (combined minimal sedation).

8. Review of dental procedures possible under enteral and/or combination inhalation-enteral minimal sedation).

9. Patient monitoring using observation, monitoring equipment, with particular attention to vital signs and reflexes related to consciousness.

10. Maintaining proper records with accurate chart entries recording medical history, physical examination, informed consent, time-oriented anesthesia record, including the names of all drugs administered including local anesthetics, doses, and monitored physiological parameters.

11. Prevention, recognition and management of complications and life-threatening situations.

12. Administration of local anesthesia in conjunction with enteral and/or combination inhalation-enteral minimal sedation techniques.

13. Description, maintenance and use of inhalation sedation equipment.

14. Introduction to potential health hazards of trace anesthetics and proposed techniques for limiting occupational exposure.

15. Discussion of abuse potential.

C. Enteral and/or Combination Inhalation-Enteral Minimal Sedation Course Duration: Participants must be able to document current certification in Basic Life Support for Healthcare Providers and have completed a nitrous oxide competency course to be eligible for enrollment in this course. 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 include a minimum of *16 hours*, plus clinically-oriented experiences during which competency in enteral and/or combined inhalation-enteral minimal sedation techniques is demonstrated. Clinically-oriented experiences may include group observations on patients undergoing enteral and/or combination inhalation-enteral minimal sedation. Clinical experience in managing a compromised airway is critical to the prevention of life-threatening emergencies. 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.

D. Participant Evaluation and Documentation of Instruction: Competency courses in combination inhalation-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. Faculty: The course should be directed by a dentist or physician qualified by experience and training. This individual should possess a current permit or license to administer moderate sedation 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. Dental faculty with broad clinical experience in the particular aspect of the subject under consideration should participate. In addition, the participation of highly qualified individuals in related fields, such as anesthesiologists, pharmacologists, internists, and 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.

F. Facilities: Competency courses must be presented where adequate facilities are available for proper patient care, including drugs and equipment for the management of emergencies.

V. Teaching Administration of Moderate Sedation

These *Guidelines* present a basic overview of the requirements for a competency course in moderate sedation. These include courses in enteral and parenteral 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 pre-requisite nitrous oxide-oxygen competency course is required for participants combining moderate sedation with nitrous oxide-oxygen.

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

1. List and discuss the advantages and disadvantages of moderate sedation.
2. Discuss the prevention, recognition and management of complications associated with moderate sedation.
3. Administer moderate sedation to patients in a clinical setting in a safe and effective manner.
4. Discuss the abuse potential, occupational hazards and other untoward effects of the agents utilized to achieve moderate sedation.
5. Describe and demonstrate the technique of intravenous access, intramuscular injection and other parenteral techniques.
6. Discuss the pharmacology of the drug(s) selected for administration.

7. Discuss the precautions, indications, contraindications and adverse reactions associated with the drug(s) selected.
8. Administer the selected drug(s) to dental patients in a clinical setting in a safe and effective manner.
9. List the complications associated with techniques of moderate sedation.
10. Describe a protocol for management of emergencies in the dental office and list and discuss the emergency drugs and equipment required for the prevention and management of emergency situations.
11. Discuss principles of advanced cardiac life support or an appropriate dental sedation/anesthesia emergency course equivalent.
12. Demonstrate the ability to manage emergency situations.
13. Demonstrate the ability to diagnose and treat emergencies related to the next deeper level of anesthesia than intended.

B. Moderate Sedation 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. 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 anesthesia continuum, with special emphasis on the distinction between the conscious and the unconscious state.
6. Review of adult respiratory and circulatory physiology and related anatomy.
7. Pharmacology of local anesthetics and agents used in moderate sedation, including drug interactions and contraindications.
8. Indications and contraindications for use of moderate sedation.
9. Review of dental procedures possible under moderate sedation.
10. Patient monitoring using observation and monitoring equipment, with particular attention to vital signs, ventilation/breathing and reflexes related to consciousness.
11. Maintaining proper records with accurate chart entries recording medical history, physical examination, informed consent, time-oriented anesthesia record, including the names of all drugs administered including local anesthetics, doses, and monitored physiological parameters.
12. Prevention, recognition and management of complications and emergencies.
13. Description, maintenance and use of moderate sedation monitors and equipment.
14. Discussion of abuse potential.
15. Intravenous access: anatomy, equipment and technique.

16. Prevention, recognition and management of complications of venipuncture and other parenteral techniques.

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

18. Prevention, recognition and management of systemic complications of moderate sedation, with particular attention to airway maintenance and support of the respiratory and cardiovascular systems.

Moderate Sedation Course Duration and Documentation:

The Course must include:

- A minimum of 60 hours of instruction plus administration of sedation for at least 20 individually managed patients.
- Certification of competence in 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.

D. 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. Faculty: The course should be directed by a dentist or physician qualified by experience and training. This individual should possess a current permit or license to administer moderate or deep sedation and general anesthesia in at least one state, have had at least three years of experience, including formal postdoctoral training in anxiety and pain control. Dental faculty with broad clinical experience in the particular aspect of the subject under consideration should participate. In addition, the participation of highly qualified individuals in related fields, such as anesthesiologists, pharmacologists, internists, cardiologists and psychologists, should be encouraged.

A participant-faculty ratio of not more than four-to-one when moderate sedation is being taught allows for adequate supervision during the clinical phase of instruction. A one-to-one ratio is recommended during the early stage of participation.

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

F. Facilities: Competency courses in moderate sedation must be presented where adequate facilities are available for proper patient care, including drugs and equipment for the management of emergencies. These facilities may include dental and medical schools/offices, hospitals and surgical centers.

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1 Excerpted from Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia, 2014, of the American Society of Anesthesiologists (ASA)

2 ASA Physical Status Classification System is reprinted with permission of the American Society of Anesthesiologists, Updated by ASA House of Delegates, October 15, 2014.

3 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. 2011. Reprinted with permission.