

Commission on Dental Accreditation

Accreditation Standards for Advanced Dental Education Programs in Orthodontics and Dentofacial Orthopedics

Accreditation Standards for Advanced Dental Education Programs in Orthodontics and Dentofacial Orthopedics

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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

Orthodontics and Dentofacial Orthopedics Standards

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 If the deficiencies are not corrected within the specified time period, accreditation will be withdrawn, unless the Commission extends the period for achieving compliance for good cause.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: 8/18; 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).

Revised: 7/08; Reaffirmed: 8/18; 8/13; 8/10; Adopted: 2/02

Other Accreditation Actions:

Teach-Out: An action taken by the Commission on Dental Accreditation to notify an accredited program and the communities of interest that the program is in the process of voluntarily terminating its accreditation due to a planned discontinuance or program closure. The Commission monitors the program until students/residents who matriculated into the program prior to the reported discontinuance or closure effective date are no longer enrolled.

Reaffirmed: 8/18; Adopted: 2/16

Discontinued: An action taken by the Commission on Dental Accreditation to affirm a program's reported discontinuance effective date or planned closure date and to remove a program from the Commission's accredited program listing, when a program either 1) voluntarily discontinues its participation in the accreditation program and no longer enrolls students/residents who matriculated prior to the program's reported discontinuance effective date or 2) is closed by the sponsoring institution.

Intent to Withdraw: A formal warning utilized by the Commission on Dental Accreditation to notify an accredited program and the communities of interest that the program's accreditation will be withdrawn if compliance with accreditation standards or policies cannot be demonstrated by a specified date. The warning is usually for a six-month period, unless the Commission extends for good cause. The Commission advises programs that the intent to withdraw accreditation may have legal implications for the program and suggests that the institution's legal counsel be consulted regarding how and when to advise applicants and students of the Commission's accreditation actions. The Commission reserves the right to require a period of non-enrollment for programs that have been issued the Intent to Withdraw warning.

Revised: 2/16; 8/13; Reaffirmed: 8/18

Withdraw: An action taken by the Commission when a program has been unable to demonstrate compliance with the accreditation standards or policies within the time period specified. A final action to withdraw accreditation is communicated to the program and announced to the communities of interest. A statement summarizing the reasons for the Commission's decision and comments, if any, that the affected program has made with regard to this decision, is available upon request from the Commission office. Upon withdrawal of accreditation by the Commission, the program is no longer recognized by the United States Department of Education. In the event the Commission withdraws accreditation from a program, students currently enrolled in the program at the time accreditation is withdrawn and who successfully complete the program, will be considered graduates of an accredited program. Students who enroll in a program after the accreditation has been withdrawn will not be considered graduates of a Commission accredited program. Such graduates may be ineligible for certification/licensure examinations.

Revised 6/17; Reaffirmed: 8/18; 8/13; 8/10, 7/07, 7/01; CODA: 12/87:9

Denial: An action by the Commission that denies accreditation to a developing program (without enrollment) or to a fully operational program (with enrollment) that has applied for accreditation. Reasons for the denial are provided. Denial of accreditation is considered an adverse action.

Reaffirmed: 8/18; 8/13; Adopted: 8/11

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 disciplines 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 residency, 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, institutions and programs. Each discipline develops discipline-specific standards for educational 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 educational 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, gender, 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).

Definitions of Terms Used in Orthodontic and Dentofacial Orthopedic 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 as 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 orthodontics and dentofacial orthopedics in the application of and in connection with compliance with the Accreditation Standards for Advanced Dental Education Programs in Orthodontics and Dentofacial Orthopedics. 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 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 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.

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 dentistry: Evidence-based 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.

Ethics and Professionalism

1-1 Graduates must receive instruction in 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: Graduates 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.

The program **must** document its effectiveness using a formal and ongoing outcomes assessment process to include measures of advanced 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 orthodontics and dentofacial orthopedics and that one of the program goals is to comprehensively prepare competent individuals to initially practice orthodontics and dentofacial orthopedics. 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.

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

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 (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.

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.**
- 1-3 Documentary evidence of agreements, approved by the sponsoring and relevant major and minor activity sites not owned by the sponsoring institution, must be available. 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: An "institution (or organizational unit of an institution)" is defined as a dental, medical or public health school, patient care facility, or other entity that engages in advanced dental education. The items 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).

- 1-4 For each site where educational activity occurs, there must be an on-site clinical supervisor who is qualified by education and/or clinical experience in the curriculum areas for which they are responsible.**
- 1-5 All faculty, including those at major and minor educational activity sites, must be calibrated to ensure consistency in training and evaluation of students/residents that supports the goals and objectives of the program.**

Intent: It is the responsibility of the program director to ensure that all faculty, including those at sites where educational activity occurs, are qualified.

If the program utilizes off-campus sites for clinical experiences or didactic instruction, please review the Commission's Policy on Accreditation of Off-Campus Sites found 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 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 orthodontic program is to be certified by the American Board of Orthodontics.

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; 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.

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

- 2-1 The program must be directed by one individual.**
- 2-2 The program director position must be full-time as defined by the institution.**
- 2-3 There must be evidence that sufficient time is devoted to the program by the director so that the educational and administrative responsibilities can be met.**

Intent: The program director is expected to be intimately involved in all aspects of the program.

Examples of evidence to demonstrate compliance may include:

- Program's director's weekly schedule

- Institution's definition of full-time and part-time commitment
- Program director's job description

2-4 A majority of the discipline-specific instruction and supervision must be conducted by individuals who are educationally qualified in orthodontics and dentofacial orthopedics.

2-5 Besides maintaining clinical skills, the director must have teaching experience in orthodontics and dentofacial orthopedics. For all appointments after July 1, 2009, the director must have had teaching experience in an academic orthodontic departmental setting for a minimum of two (2) years.

2-6 Periodic faculty meetings must be held for the proper function and improvement of an advanced dental education program in orthodontics and dentofacial orthopedics.

Examples of evidence to demonstrate compliance may include:

- Schedules and minutes of faculty meetings
- Action taken as a result of faculty meetings
- Records of attendance at faculty meetings

2-7 The faculty must have knowledge of the required biomedical sciences relating to orthodontics and dentofacial orthopedics. Clinical instruction and supervision in orthodontics and dentofacial orthopedics must be provided by individuals who have completed an advanced dental education program in orthodontics and dentofacial orthopedics approved by the Commission on Dental Accreditation (grandfathered), or by individuals who have equivalent education in orthodontics and dentofacial orthopedics.

2-8 In addition to their regular teaching responsibilities with the department, full-time faculty must have adequate time for their own professional development.

Intent: Full-time faculty have the obligation to teach, conduct research and provide service to the institution and/or profession.

Examples of evidence to demonstrate compliance may include:

- Weekly schedules of full-time faculty
- Curriculum vita of full-time faculty, including academic ranks
- Schedule of faculty commitments in teaching, research and service

2-9 The program must ensure a minimum of one (1) full time equivalent (FTE) faculty to four (4) students/residents for the entire program, including clinical, didactic, administration, and research components.

- 2-10 For clinic coverage, the program must ensure no less than one (1) faculty to eight (8) students/residents to assure the number and time commitment of faculty is sufficient to provide full supervision of the clinical portion of the program.**
- 2-11 The faculty covering clinic must be orthodontists.**
- 2-12 Faculty evaluations must be conducted and documented at least annually.**

Examples of evidence to demonstrate compliance may include:

- Faculty evaluation records
- Credentials and advanced education of faculty
- Institution plan for professional development

- 2-13 There must be evidence of an ongoing systematic procedure to evaluate the quality of treatment provided in the program.**

Examples of evidence to demonstrate compliance may include:

- Records of case presentations and evaluation
- Patient charts available for audit
- Protocol for treatment

- 2-14 The program director and faculty must prepare students/residents to pursue certification by the American Board of Orthodontics.**

2-14.a The program director must document the number of graduates who become certified by the American Board of Orthodontics.

- 2-15 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

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

Evidence of participation in continuing education activities

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. 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.

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 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 for 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.

Intent: Required orthodontic clinical experiences do not occur in private office facilities. Practice management and elective experiences may be undertaken in private office facilities.

3-1 Adequate space must be designated specifically for the advanced dental education program in orthodontics and dentofacial orthopedics. For each clinic session to which a student/resident is assigned, the program must provide a minimum of one (1) clinic chair per student/resident.

Intent: Dedicated space is necessary to maintain the autonomy of a program. Sharing the same clinical facilities with other areas of dentistry is not permitted.

3-2 Facilities must permit the students/residents to work effectively with trained allied dental personnel.

Intent: A program is expected to have auxiliaries available to assist the students/residents so the program can meet the educational Standards.

Examples of evidence to demonstrate compliance may include:

- Schedule of dental assistants' assignments

3-3 Radiographic, biometric and data collecting facilities must be readily available to document both clinical and research data. Imaging equipment must be available.

3-4 Students/Residents in an orthodontic program must have access to adequate space, equipment, and physical facilities to do research.

Intent: Adequate space is necessary to do research, but does not need to be dedicated to orthodontic research.

3-5 Adequate secretarial, clerical, dental auxiliary and technical personnel must be provided to enable students/residents to achieve the educational goals of the program.

Intent: The intent is to ensure the students/residents utilize their time for educational purposes.

3-6 Clinical facilities must be provided within the sponsoring or affiliated institution to fulfill the educational needs of the program.

3-7 Sufficient space must be provided for storage of patient records, models and other related diagnostic materials.

3-8 These records and materials must be readily available to effectively document active treatment progress and immediate as well as long term post-treatment results.

Intent: Students/Residents are expected to have easy access to active, post treatment, and retention records. These records should be complete.

3-9 Digital radiography equipment must be available and accessible to the orthodontic clinic so that panoramic, cephalometric and other images can be provided for patients. Cone-beam volumetric images are also acceptable.

Intent: High quality radiographic images are essential for orthodontic and dentofacial orthopedic therapy. Three dimensional cone-beam CT images of the dentition, face and TMJs are acceptable if the equipment is convenient.

STANDARD 4 - CURRICULUM AND PROGRAM DURATION

Curriculum Approach: Evidence-Based Dentistry (EBD)

Evidence-based dentistry (EBD) 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. (*Adopted by the American Association of Orthodontists House of Delegates 05/24/2005*)

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. Evidence-based 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.

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 student/residents of these programs receive the same educational requirements as set forth in these Standards.

If an institution and/or program enrolls part-time students/residents, the institution **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** assure 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.

4-1 Program Duration: Advanced dental education programs in orthodontics and dentofacial orthopedics must be a minimum of twenty-four (24) months and 3700 scheduled hours in duration.

Examples of evidence to demonstrate compliance may include:

- Class schedules and outlines

4-2 Biomedical Sciences: A graduate of an advanced dental education program in orthodontics must be competent to:

- Develop treatment plans and diagnosis based on information about normal and abnormal growth and development;**
- Use the concepts gained in embryology and genetics in planning treatment;**
- Include knowledge of anatomy and histology in planning and carrying out treatment; and**
- Apply knowledge about the diagnosis, prevention and treatment of pathology of oral tissues.**

Examples of evidence to demonstrate compliance may include:

- Course outlines and case treatment records
- Outcome assessment of clinical performance

4-3 Clinical Sciences:

4-3.1 Orthodontic treatment must be evidence-based. (EBD 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.) *(Adopted by the American Association of Orthodontists House of Delegates 05/24/2005)*

Examples of evidence to demonstrate compliance may include:

- orthodontic literature applied to clinical treatment decisions
- integration of current systematic literature reviews with treatment conferences
- ethics applied to patient management

4-3.2 An advanced dental education program in orthodontics and dentofacial orthopedics requires extensive and comprehensive clinical experience, which must be representative of the character of orthodontic problems encountered in private practice.

Intent: The intent is to ensure there is diversity in the patient population so that the students/residents will learn to treat a variety of orthodontic problems from the primary to adult dentition.

Examples of evidence to demonstrate compliance may include:

- Case treatment records
- Percentage of each category of patient care

4-3.3 Experience must include treatment of all types of malocclusion, whether in the permanent or transitional dentitions, and should include treatment of the primary dentition when appropriate.

Examples of evidence to demonstrate compliance may include:

- Case treatment records

4-3.4 A graduate of an advanced dental education program in orthodontics must be competent to:

- a. **Coordinate and document detailed interdisciplinary treatment plans which may include care from other providers, such as restorative dentists and oral and maxillofacial surgeons or other dental specialists;**
- b. **Treat and manage developing dentofacial problems which can be minimized by appropriate timely intervention;**
- c. **Use dentofacial orthopedics in the treatment of patients when appropriate;**
- d. **Treat and manage major dentofacial abnormalities and coordinate care with oral and maxillofacial surgeons and other healthcare providers;**
- e. **Provide all phases of orthodontic treatment including initiation, completion and retention;**
- f. **Treat patients with at least one contemporary orthodontic technique;**

Intent: It is intended that the program teach one or more methods of comprehensive orthodontic treatment.

- g. Manage patients with functional occlusal and temporomandibular disorders;**
- h. Treat or manage the orthodontic aspects of patients with moderate and advanced periodontal problems;**
- i. Develop and document treatment plans using sound principles of appliance design and biomechanics;**
- j. Obtain and create long term files of quality images of patients using techniques of photography, radiology and cephalometrics, including computer techniques when appropriate;**
- k. Use dental materials knowledgeably in the fabrication and placement of fixed and removable appliances;**
- l. Develop and maintain a system of long-term treatment records as a foundation for understanding and planning treatment and retention procedures;**
- m. Practice orthodontics in full compliance with accepted Standards of ethical behavior;**

Intent: A program may be in compliance with the standard on ethical behavior when ethical behavior is acquired through continuous integration with other courses in the curriculum.

Examples of evidence to demonstrate compliance may include:

- Course outlines
- Case treatment records
- n. Manage and motivate patients to participate fully with orthodontic treatment procedures;**
- o. Study and critically evaluate the literature and other information pertaining to this field;**
- p. Identify patients with sleep-related breathing disorders/sleep apnea;**
- q. Identify patients with Craniofacial Anomalies and Cleft Lip and Palate;**
- r. Treat and effectively manage malocclusions that require four (4) quadrants of bicuspid extractions or of comparable space closure;**
- s. Treat and effectively manage Class II malocclusions, defined as a bilateral end-on or greater Class II molar or a unilateral full cusp Class II molar, through a non-surgical treatment approach; and**

Examples of evidence to demonstrate compliance may include:

- Course outlines
- Clinical outcomes assessment
- ABO Assessment Tools: Discrepancy Index, Cast-Radiograph Evaluation, Case Management Forms

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t. Manage patients with intellectual and developmental disabilities.

4-4 Supporting Curriculum. The orthodontic graduate must have understanding of:

- a. Biostatistics;**
- b. History of Orthodontics and Dentofacial Orthopedics;**
- c. Jurisprudence;**
- d. Oral Physiology;**
- e. Pain and Anxiety Control;**
- f. Pediatrics;**
- g. Periodontics;**
- h. Pharmacology;**
- i. Preventive Dentistry;**
- j. Psychological Aspects of Orthodontic and Dentofacial Orthopedic Treatment;**
- k. Public Health Aspects of Orthodontics and Dentofacial Orthopedics;**
- l. Speech Pathology and Therapy;**
- m. Practice Management; and**
- n. The variety of recognized techniques used in contemporary orthodontic practice.**

Examples of evidence to demonstrate compliance may include:

- Course outlines

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.*

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 an appropriate curriculum that results in the same standards of competence required by students/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 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.*

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

5-1 A committee of orthodontic faculty members must be responsible for the selection of students/residents for postdoctoral training unless the program is sponsored by a federal service utilizing a centralized student/resident selection process.

Examples of evidence to demonstrate compliance may include:

- Institutional/program policies on eligibility and selection
- Minutes from meetings of committee of orthodontic faculty members

EVALUATION

A system of ongoing evaluation and advancement **must** assure 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 semi annually;
- 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 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.

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 students/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.*

STANDARD 6 - RESEARCH

Advanced dental education students/residents **must** engage in scholarly activity.

6-1 Students/Residents must initiate and complete a research project to include critical review of the literature, development of a hypothesis and the design, statistical analysis and interpretation of data.

Examples of evidence to demonstrate compliance may include:

- List of student/resident scholarly activity
- List of student/resident research projects
- Copies of student/resident research protocol
- List of completed manuscripts that are result of student/resident research
- Copy of completed manuscripts that are result of student/resident research
- Student/Resident manuscripts submitted for publication
- List of published manuscripts
- Papers/manuscripts published by graduates after leaving program