

Commission on Dental Accreditation

Accreditation Standards for Advanced Specialty Education Programs in Endodontics

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**Commission on Dental Accreditation
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Endodontics: that branch of dentistry, which is concerned with the morphology, physiology and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic clinical sciences including biology of the normal pulp, the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular conditions.
(Adopted December 1983)

Document Revision History

Date	Item	Action
July 31, 2008	Accreditation Standards for Advanced Specialty Education Programs in Endodontics	Adopted
January 1, 2009	Accreditation Standards for Advanced Specialty Education Programs in Endodontics	Implemented
January 30, 2009	Addition of American Board of Endodontics Definition of "Prospective Board Candidate"	Adopted and Implemented
January 30, 2009	Revisions to Language Common to All Specialties (Preface, Definitions of Terms, and Standards 1, 4 and 5)	Adopted
July 1, 2009	Revisions to Language Common to All Specialties (Preface, Definitions of Terms, and Standards 1, 4 and 5)	Implemented
July 31, 2009	Revised Policy on Major Change and Accreditation of Off-Campus Sites	Adopted and Implemented
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January 1, 2011	Policy Revisions (Major Change, Off-Campus Sites, Authorized Enrollment Increases)	Implemented
August 5, 2011	Deletion of intent statement to Standard 2-4	Adopted and Implemented
August 5, 2011	Revised Policy on Program Changes	Adopted and Implemented

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Mission Statement of the Commission on Dental Accreditation

The Commission on Dental Accreditation serves the public by establishing, maintaining and applying standards that ensure the quality and continuous improvement of dental and dental-related education and reflect the evolving practice of dentistry. The scope of the Commission on Dental Accreditation encompasses dental, advanced dental and allied dental education programs.

Commission on Dental Accreditation
revised: January 30, 2001

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 must be demonstrated within 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.

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).

Preface

Maintaining and improving the quality of advanced education in the nationally recognized specialty areas of dentistry 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 specialty education programs is a voluntary effort of all parties involved. The process of accreditation assures students/residents, 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 recognized specialty areas of dental practice: dental public health, endodontics, oral and maxillofacial pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics and dentofacial orthopedics, pediatric dentistry, periodontics and prosthodontics. 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 education in a recognized specialty area of dentistry 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 consultants. The Commission has established review committees in each of the recognized specialties to review site visit and progress reports and make recommendations to the Commission. Review committees are composed of representatives selected by the specialties and their 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 consultants will evaluate advanced programs in each specialty for accreditation purposes. The Commission on Dental Accreditation establishes general standards which are common to all dental specialties, institutions and programs regardless of specialty. Each specialty develops specialty-specific standards for educational programs in its specialty. The general and specialty-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 specialty.

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

REPORTING PROGRAM CHANGES IN ACCREDITED PROGRAMS

The Commission on Dental Accreditation recognizes that education and accreditation are dynamic, not static, processes. Ongoing review and evaluation often lead to changes in an educational program. The Commission views change as part of a healthy educational process and encourages programs to make them as part of their normal operating procedures.

At times, however, more significant changes occur in a program. Changes may have a direct and significant impact on the program's potential ability to comply with the accreditation standards. Program changes tend to occur in the areas of finances, program administration, enrollment, curriculum and clinical/laboratory facilities, but may also occur in other areas. Reporting changes in the Annual Survey does not preclude the requirement to report changes to the Commission. Failure to report in advance any increase in enrollment or other change, using the Guidelines for Reporting Program Change, may result in review by the Commission, a special site visit, and may jeopardize the program's accreditation status. Advanced specialty education programs must adhere to the Policy on Enrollment Increases In Advanced Specialty Programs.

The Commission's Policy on Integrity also applies to the reporting of changes. If the Commission determines that an intentional breach of integrity has occurred, the Commission will immediately notify the chief executive officer of the institution of its intent to withdraw the accreditation of the program(s) at its next scheduled meeting.

When a change is planned, Commission staff should be consulted to determine reporting requirements. This report must document how the program will continue to meet accreditation standards. The Commission's Guidelines for Reporting Program Changes are available on the ADA website and may provide guidance in adequately explaining and documenting changes.

The program must report all programmatic changes to the Commission in writing at least thirty (30) days prior to the anticipated implementation of the change; however, for changes that involve enrollment increases in advanced specialty programs and changes that involve the addition of off-campus sites, different reporting deadline requirements apply. For enrollment increases in advanced specialty programs the program must submit a request to the Commission one (1) month prior a regularly scheduled semiannual Review Committee/Commission meeting. A program must receive Commission approval for an increase in enrollment prior to publishing or announcing the additional positions or accepting additional students/residents. For the addition of off-campus sites, the program must report in writing to the Commission at least six (6) months prior to the anticipated initiation of educational experiences at the off-campus site. See the Policy on Enrollment Increases In Advanced Specialty Programs and the Policy on Accreditation Of Off-campus Sites for specific information on these types of changes.

The following examples illustrate, but are not limited to, changes that would be reviewed by the appropriate Review Committee and the Commission to ensure that the program continues to meet the accreditation standards:

- Transfer of sponsorship from one institution to another;
- Moving a program from one geographic site to another;
- Program director qualifications not being in compliance with the standards;
- Substantial increase in program enrollment beyond the apparent resources of the program. (Specialty programs see Policy on Enrollment Increases In Advanced Specialty Programs);
- Significant change in the nature of the program's financial support;
- Curriculum changes that eliminate content areas required by the standards;
- Modification or reduction in faculty or support staff;
- Increase in the required length of the program; and/or
- Significant reduction of program dental facilities.

The Commission recognizes that unexpected, changes may occur. If an unexpected change occurs, it must be reported no more than 30 days following the occurrence. Unexpected changes may be the result of sudden changes in institutional commitment, affiliated agreements between institutions, faculty support, or facility compromise resulting from natural disaster. Failure to proactively plan for change will not be considered unexpected change. Depending upon the timing and nature of the change, appropriate investigative procedures including a site visit may be warranted.

The following examples illustrate, but are not limited to, additional program changes that are not reviewed by the Review Committee and the Commission but are reviewed at the next site visit:

- Adding content to individual courses;
- Updating or replacing laboratory/clinical equipment;
- Expansion or relocation of dental facilities within the same institution;
- Re-sequencing specific courses within the curriculum; and/or
- Change in program director. A copy of the new or acting program director's curriculum vitae should be provided to Commission staff.

POLICY ON ENROLLMENT INCREASES IN ADVANCED DENTAL SPECIALTY PROGRAMS

A program considering or planning an enrollment increase, or any other substantive change, should notify the Commission early in the program's planning. Such notification will provide an opportunity for the program to seek consultation from Commission staff regarding the potential effect of the proposed change on the accreditation status and the procedures to be followed.

A request for an increase in enrollment with all supporting documentation must be submitted in writing to the Commission one (1) month prior to a regularly scheduled semiannual Review Committee meeting. A program must receive Commission approval for an increase in enrollment prior to publishing or announcing the additional positions or accepting additional students/residents.

The Commission will not retroactively approve enrollment increases without a special focused site visit. Special circumstances may be considered on a case-by-case basis, including, but not limited to, temporary enrollment increases due to:

- Student/Resident extending program length due to illness, incomplete projects/clinical assignments, or concurrent enrollment in another program;
- Unexpected loss of an enrollee and need to maintain balance of manpower needs;
- Urgent manpower needs demanded by U.S. armed forces; and
- Natural disasters.

Failure to comply with this policy will jeopardize the program's accreditation status, up to and including withdrawal of accreditation. If a program has enrolled beyond the approved number of students/residents without prior approval by the Commission, a special focused site visit will be required at the program's expense.

If the focused visit determines that the program does not have the resources to support the additional student(s)/resident(s), the program will be placed on "intent to withdraw" status and no additional student(s)/resident(s) beyond the previously approved number may be admitted to the program until the deficiencies have been rectified and approved by the Commission. Student(s)/Resident(s) who have already been formally accepted or enrolled in the program will be allowed to continue.

Definitions of Terms Used in Endodontics 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 specialty education programs in endodontics in the application of and in connection with compliance with the Accreditation Standards for Advanced Specialty Education Programs in Endodontics. 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 standards.

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

Levels of Knowledge:

In-depth: A thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding.

Understanding: Adequate knowledge with the ability to apply.

Familiarity: A simplified knowledge for the purposes of orientation and recognition of general principles.

Levels of Skill:

Proficient: The level of skill beyond competency. It is that level of skill acquired through advanced training or the level of skill attained when a particular activity is accomplished with repeated quality and a more efficient utilization of time.

Competent: The level of skill displaying special ability or knowledge derived from training and experience.

Exposed: The level of skill attained by observation of or participation in a particular 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 specialty education.

Sponsoring institution: primary responsibility for advanced specialty education programs.

Affiliated institution: support responsibility for advanced specialty education programs.

Advanced specialty education student/resident: a student/resident enrolled in an accredited advanced specialty 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 a specialty recognized by the American Dental Association.

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

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

Endodontic Terms:

(The first four terms are approved by the American Board of Endodontics [ABE].)

Prospective Board Candidate: A student enrolled in their final year of an advanced education program of endodontics accredited by the Commission of Dental Accreditation of the ADA whose application and payment of the Written Examination fee have been accepted and approved by the Board.

Educationally Qualified Endodontist: An endodontist who has successfully completed an advanced education program in endodontics accredited by the Commission on Dental Accreditation of the ADA.

Board-Eligible Endodontist: An educationally qualified endodontist whose application and credentials have the approval of the ABE.

Board Certified Endodontist: An endodontist who has satisfied all requirements of the certification process of the ABE, has been declared Board Certified by the Directors of the ABE, and maintains Board certification. This individual is a Diplomate of the ABE.

Evidence-based Endodontics (EBE): The integration of the best research evidence with clinician expertise and patient values.

- best research evidence refers to relevant research from basic and applied sciences including clinical, in vivo animal, or in vitro laboratory trials.
- clinician expertise refers to the clinical skills and past experience that allows efficient and accurate assessment of the risks and benefits of potential interventions.
- patient values refer to the unique preferences, concerns and expectations of each patient, which must be integrated into clinical decisions.

STANDARD 1 - INSTITUTIONAL COMMITMENT/PROGRAM EFFECTIVENESS

The program must develop clearly stated goals and objectives appropriate to advanced specialty 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 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 endodontics and that one of the program goals is to comprehensively prepare competent individuals to initially practice endodontics. 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 specialty 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 specialty 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 specialty education programs must be accredited by The Joint Commission or its equivalent. Educational institutions that sponsor advanced specialty 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 specialty education programs must assure 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.

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 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.

AFFILIATIONS

The primary sponsor of the educational program must accept full responsibility for the quality of education provided in all affiliated institutions.

Documentary evidence of agreements, approved by the sponsoring and relevant affiliated institutions, 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: 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).

POLICY STATEMENT ON ACCREDITATION OF OFF-CAMPUS SITES

The Commission on Dental Accreditation must be informed when a program accredited by the Commission, plans to initiate an off-campus site (distance site and/or additional training site not located on the main campus). The Commission must be informed in writing six (6) months prior to the anticipated initiation of educational experiences at the off-campus site.

Generally, only programs without reporting requirements will be approved to initiate educational experiences at off-campus sites. The Commission must ensure that the necessary education as defined by the standards is available, and appropriate resources (adequate faculty and staff, availability of patient experiences, and distance learning provisions) are provided to all students/residents enrolled in an accredited program. When the Commission has received notification that an institution plans to offer its accredited program at an off-campus site, the Commission will conduct a special focused site visit to each off-campus location where a significant portion of each student's/resident's educational experience is provided, based on the specifics of the program, the accreditation standards, and Commission policies and procedures, or if other cause exists for such a visit as determined by the Commission. After the initial visit, each site will continue to be visited during the regularly scheduled site visit to the program.

The Commission recognizes that dental assisting and dental laboratory technology programs utilize numerous extramural dental offices and laboratories to provide students with clinical/laboratory practice experience. In this instance, the Commission will randomly select and visit several facilities during the site visit to a program. All programs accredited by the Commission pay an annual fee. Additional fees will be based on actual accreditation costs incurred during the visit to on and off-campus locations. The Commission office should be contacted for current information on fees.

STANDARD 2 - PROGRAM DIRECTOR AND TEACHING STAFF

The program must be administered by a director who is board certified in the respective specialty 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 specialty education program is to be certified by an ADA-recognized certifying board in the specialty. 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 specialty 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 sponsoring institution must appoint a program director who a) is a full-time faculty member and b) whose time commitment is no less than twenty-four hours per week to the advanced education program in endodontics.

Intent: The intent is to ensure that the program director has sufficient time to participate in all aspects of the program including direct student/resident contact in didactic and clinical activities.

2-2 Responsibilities of the program director must include:

- a. Development of mission, goals, and objectives for the program;**
- b. Development and implementation of a curriculum plan;**
- c. Planning for and operation of the facilities used in the endodontic program;**
- d. Student/resident selection unless the program is sponsored by a federal service utilizing a centralized student/resident selection process;**
- e. Ensuring ongoing evaluation of student/resident performance and faculty teaching performance;**
- f. Evaluation of teaching program and faculty supervision in affiliated institutions;**
- g. Maintenance of records related to the educational program, including written instructional objectives and course outlines;**
- h. Overall continuity and quality of patient care as it relates to program;**
- i. Ongoing planning, evaluation and improvement of the quality of the program;**
- j. Preparation of graduates for certification by the American Board of Endodontics; and**
- k. Ensuring formal (written) evaluation of faculty members at least annually to assess their performance in the educational program.**

Intent: The intent is to ensure that the program director has complete authority to administer all aspects of the advanced education program and that all administrative records are maintained within the institution.

2-3 The number of faculty and the professional education and development of faculty must be sufficient to meet the program's objectives and outcomes.

2-4 There must be attending faculty responsible for all clinical activities.

2-4.1 Attending faculty must have specific and regularly scheduled clinic assignments to provide direct supervision appropriate to a student's/resident's level of training in all patient care.

2-5 Program directors and full time faculty must be provided time and resources to engage in scholarly pursuits, which may include:

- a. Participation in continuing education in endodontics;**
- b. Participation in regional or national endodontic societies;**
- c. Participation in research; and**
- d. Presentation and publication of scientific/clinical studies.**

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 specialty education is not approved, unless the specialty has included language that defines the use of such facilities in its specialty-specific standards.

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

3-1 The clinical facilities for students/residents in endodontics must be specifically identified and readily available.

3-1.1 The design of units must be suitable for all endodontic clinical procedures, including four-handed dentistry.

Intent: The intent is to ensure that students/residents, faculty, and clinical support personnel have the facilities/resources necessary to conduct the clinical phase of the program; that clinical operatories and surrounding space are sufficient to perform all endodontic procedures, including surgery, and to allow for patient comfort, access and space for clinical support personnel, and students/residents/faculty maneuverability.

3-2 Radiographic or imaging equipment and equipment specific for endodontic procedures must be readily available.

Intent: The intent is to ensure that necessary equipment is available in the same clinic area to image teeth and their surrounding structures to aid in diagnosis and treatment.

3-3 Lecture and seminar rooms, as well as audiovisual aids, must be available.

3-4 Appropriate information resources must be available, including access to biomedical textbooks, dental journals, the Internet and other sources pertinent to the area of endodontic practice and research.

3-5 Clinical support personnel must be sufficient to ensure efficient operation of clinical program and to provide students/residents with the opportunity to practice four-handed dentistry techniques.

Intent: The intent is to facilitate efficient delivery of dental care; to enhance the normal operation of endodontic practice; and to provide a simulated clinical practice environment; (Clinical support personnel are needed to keep from placing an undue burden of additional duties and responsibilities on the student/resident, potentially compromising the overall educational objectives of the program.)

3-6 Secretarial and clerical support personnel must be sufficient to permit efficient operation of the program.

Intent: The intent is to ensure operations of the program are managed in an efficient and expeditious manner without placing undue hardship on the faculty and students/residents in the program.

3-7 Program resources must exist to support the number of students/residents enrolled.

Examples of evidence to demonstrate compliance may include:

- annual budget for program including faculty and support staff
- patient availability through appointment book and waiting lists
- number of cases treated per student/resident as compared to previous year
- number of dedicated dental units and their scheduled use
- number of clinical/clerical support staff
- number and availability of endodontic faculty and faculty/student/resident ratio
- list of equipment/supplies

STANDARD 4 - CURRICULUM AND PROGRAM DURATION

Curriculum Approach: Evidence-Based Endodontics (EBE)

The endodontic-specific Standards are based upon EBE, the integration of the best research evidence, clinician expertise and patient values.

The advanced specialty 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 specialty 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 specialty.

The level of specialty area 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 assured by the program director and available for review.

If an institution 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 An advanced specialty education program in endodontics must encompass a minimum duration of 24 months (104 weeks) of full-time study.

Intent: The intent is to ensure that during the 104 weeks it is expected that endodontic students/residents will have a maximum of 8 weeks available for vacations, legal holidays, sick leave and personal time.

4-2 The content of all didactic instruction included in the program curriculum must be documented.

Examples of evidence to demonstrate compliance may include:

- course outlines
- course objectives
- lecture/seminar schedules
- outcomes or competency statements

4-3 A formal (written) annual review of the program curriculum must be conducted.

Intent: The intent is to ensure that the instructional content continues to meet the program goals and objectives.

BIOMEDICAL SCIENCES

4-4 Instruction in the biomedical sciences must provide information emphasizing principles and recent developments in order to meet the advanced program's objectives.

Intent: The intent is to ensure that developing new theories and techniques of endodontic treatment are included in the advanced program curriculum. Instruction should include the biologic and technical aspects of maintaining, replacing, and enhancing the natural dentition, including mechanisms for enhanced tissue healing and tissue regeneration.

4-5 Instruction must emphasize the interrelationships among the biomedical sciences and their application to clinical practice.

4-6 Instruction must be provided in:

- a. **Anatomy (gross and micro) of soft and hard tissues of the head and neck;**
- b. **Embryology;**
- c. **Infectious and immunologic processes in oral health and disease;**
- d. **Pathophysiology of pulpal/periradicular disease;**
- e. **Wound healing;**
- f. **Oral medicine and oral pathology;**
- g. **Pharmacotherapeutics;**
- h. **Research methodology and statistics;**
- i. **Neurosciences; and**
- j. **Biomaterials.**

CLINICAL SCIENCES

- 4-7 A minimum of 40% and a maximum of 60% of the total clock hours in a two-year (24 months) program must be devoted to clinical care.**
- 4-8 Endodontic treatment must be evidence-based. (EBE is the integration of the best research evidence with clinician expertise and patient values).**

Examples of evidence to demonstrate compliance may include:

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

4-9 The educational program must provide in-depth instruction and clinical training to achieve proficiency in the following areas:

- a. Diagnosis, treatment planning and prognosis;**
- b. Non-surgical and surgical endodontic treatment and retreatment;**

Intent: The intent of instruction and training in surgical endodontic treatment and retreatment is to ensure that students/residents are trained to provide comprehensive treatment, which may include the removal of teeth as part of an endodontic treatment plan, e.g., extractions/replantations or extractions of teeth with vertical root fractures or other pathosis for which extraction is the preferred treatment.

- c. Outcome evaluation;**
- d. Radiography and other diagnostic imaging technologies;**
- e. Management of endodontic treatment of medically compromised patients;**
- f. Emergency treatment for endodontic conditions;**
- g. Management of patients with orofacial pain and anxiety;**
- h. Preparation of space for intraradicular restorations and cores in endodontically treated teeth;**
- i. Communication with patients and health care professionals;**
- j. Use of magnification technologies.**

Intent: The intent is to ensure that students/residents are trained in the use of instruments that provide magnification and illumination of the operative field beyond that of magnifying eyewear. In addition to the operating microscope, these instruments may include, but are not limited to, the endoscope, orascope or other developing magnification.

4-10 The educational program must provide in-depth instruction and clinical training to achieve competency in the following areas:

- a. Vital pulp management;**
- b. Endodontic management of developing permanent teeth;**
- c. Endodontic management of traumatic dental injuries; and**

INTENT: the intent is to ensure that students/residents are trained to manage all aspects of the endodontic care of teeth with traumatic injuries

Examples of evidence to demonstrate compliance may include:

Procedures performed by students/residents, which may include, but are not limited to:

- Vital pulp therapy in situations in which traumatic crown fractures result in pulpal involvement.
 - Root canal therapy for traumatically injured teeth in order to prevent or arrest inflammatory, infection-related root resorption.
 - Monitoring and evaluating traumatized teeth and associated tissues to assess the pulpal status and healing over time (reattachment, revascularization, healing of root fractures, etc).
 - Diagnosis and root canal treatment for teeth with pulp necrosis as a result of traumatic injuries.
 - Induction of apical hard tissue barriers in developing teeth with open apices and necrotic pulps.
 - Placement of apical barriers for immediate obturation of teeth with open apices.
- d. A variety of endodontic techniques.**

4-11 The educational program must provide instruction at the level of understanding and clinical training to the level of exposure in the following areas:

- a. Diagnosis and treatment of periodontal disease and defects in conjunction with the treatment of the specific tooth undergoing endodontic therapy; treatment should be provided in consultation with the individuals who will assume the responsibility for the completion or supervision of any additional periodontal maintenance or treatment;**
- b. Placement of intraradicular restorations and cores in endodontically treated teeth; when the patient is referred, this treatment is accomplished in consultation with the restorative dentist;**
- c. Intracoronary bleaching procedures;**
- d. Implant dentistry; and**
- e. Extrusion procedures.**

- 4-12 The educational program must provide instruction in the following areas:**
- a. The history of endodontics;**
 - b. Teaching methodology;**
 - c. Ethics and jurisprudence;**
 - d. Practice management;**
 - e. Risk management; and**
 - f. Medical emergencies.**
- 4-13 Students/residents must actively participate in seminars or conferences involving literature and textbook reviews.**
- 4-14 Students/residents must actively participate in endodontic and interdisciplinary seminars and conferences evaluating diagnostic data, treatment plans, treatment procedures, and outcomes assessment.**
- 4-15 The program must include a system for follow-up evaluation of patients to enable students/residents to assess the outcome of their treatment.**
- 4-16 Comprehensive records of history, diagnosis, and treatment must be maintained for each patient.**

TEACHING/MENTORING

- 4-17 Students/residents must participate in teaching endodontics to predoctoral and/or postdoctoral students/residents.**
- 4-17.1 In a two-year (24 months) program, this participation must not exceed 10% of the total clock hours.**

Intent: The intent is to enhance a student's/resident's ability to organize and evaluate teaching material, to communicate information to others, and/or to mentor others. Teaching is to be in the specialty of endodontics or other related disciplines, at the discretion of the program director.

STANDARD 5 - ADVANCED EDUCATION STUDENTS/RESIDENTS

ELIGIBILITY AND SELECTION

Dentists with the following qualifications are eligible to enter advanced specialty education programs accredited by the Commission on Dental Accreditation:

- a. Graduates from institutions in the U.S. accredited by the Commission on Dental Accreditation;**
- b. Graduates from institutions in Canada accredited by the Commission on Dental Accreditation of Canada; and**
- c. Graduates of international dental schools who possess equivalent educational background and standing as determined by the institution and 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. Transfer 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.

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

EVALUATION

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

- a. Periodically, but at least semiannually, evaluates the knowledge, skills, ethical conduct and professional growth of its students/residents, using appropriate written criteria and procedures;**
- 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: (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 specialty 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 specialty 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 specialty education students/residents must engage in scholarly activity.

6-1 Students/residents must participate in research.

Intent: The intent is to ensure that each student/resident is capable of developing a research protocol and has an active role in conducting a research project.

6-1.1 The research experience and results must be compiled into a document in publishable format.

Examples of evidence to demonstrate compliance may include:

- manuscript
- master's thesis
- Ph.D. dissertation
- progress report of on-going research activity

Advanced Stds