



**Standards**  
**for Advanced Education Programs**  
**in Implant Dentistry\***

Implant dentistry is the special area of dentistry that encompasses planning, placement, restoration, and maintenance of biomaterials to provide patient function, comfort, and esthetics.

\*Approved by the Education Committee of the American Academy of Implant Dentistry, July 1998; revised February 2007; revised and edited March 2016, re-approved June 2021.

## Definition of Terms

The verbs used in this document (i.e., *must*, *should*, *can*, and *may*) were selected carefully and indicate the relative weight attached to each statement. The definition of these words, as used in the *Standards*, follows:

**Applied:** used in actual practice or to work out practical problems.

**Instruction:** any teaching, lesson, rule or precept; details on procedure; directives.

**May or Can:** indicates freedom or liberty to follow a suggested alternative.

**Must:** indicates an imperative need and/or duty; and essential or indispensable item; mandatory.

**Postdoctoral:** can be equated with Advanced.

**Relevant:** bearing upon or relating to the matter in hand; pertinent; to the point. *Relevant* implies close logical relationship with, and importance to, the matter under consideration.

**Should:** indicates the recommended manner to obtain the standard; highly desirable.

**Students:** can be used to include Residents.

## Levels of Knowledge

1. **In-depth:** a thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding.
2. **Understanding:** adequate knowledge with the ability to apply.
3. **Familiarity:** a simplified knowledge for the purposes of orientation and recognition of general principles.

## Levels of Skill

1. **Proficient:** the level of skill beyond competency attained when a particular activity is accomplished with repeated quality and a more efficient utilization of time.
2. **Competent:** the level of skill displaying special skill or knowledge derived from training and experience.
3. **Exposed:** the level of skill attained by observation of, or participation in a particular activity.

## **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 and research.

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

*Intent: It is expected that each program will define its own goals and objectives for the practice of implant dentistry and that one of the program goals is to comprehensively prepare competent individuals to initially practice implant dentistry. The outcomes process includes steps to: (a) develop clear, measurable goals and objectives consistent with the program's purposes/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 institution's 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 materials 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 area of dentistry. The adequacy of financial support on the basis of current appropriations and the stability of sources of funding for the program will be assessed.*

Advanced education programs in implant dentistry **must** be sponsored by institutions that are properly chartered, and licensed to operate and offer instruction leading to degrees, diplomas or certificates with recognized educational validity. Hospitals that sponsor advanced education programs must be accredited by the Joint Commission on Accreditation of Healthcare Organizations or its equivalent. The bylaws, rules and regulations of hospitals that sponsor or provide a substantial portion of advanced 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. Educational institutions that sponsor advanced specialty education programs must be accredited by an agency recognized by the United States Department of Education.

**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.**

## STANDARD 2. PROGRAM DIRECTOR AND TEACHING STAFF

Program Director and Teaching Staff: The program **must** be administered by a director who is board certified or board eligible in implant dentistry or board certified in a specialty related to implant dentistry.

The program director **must** have primary responsibility for the organization and execution of the educational and administrative components of the program.

The program director **must** have sufficient time to:

- A. Participate in the student selection process
- B. Develop and implement the curriculum plan to provide a diverse educational experience in biomedical and clinical sciences
- C. Document the curriculum's goals, objectives and content outlines
- D. Maintain a record of the number and variety of clinical experiences accomplished by each student
- E. Ensure that the majority of faculty assigned to the program are educationally qualified implant dentists
- F. Provide written faculty evaluations at least annually to determine the effectiveness of the faculty in the educational program
- G. Conduct periodic staff meetings for the proper administration of the educational program
- H. Maintain adequate records of clinical supervision

Faculty **must** be assigned for all clinical sessions and be available for consultation with students and patients. There must be direct faculty supervision of students who are performing surgical procedures.

The program director and faculty should demonstrate their continued pursuit of new knowledge in implant dentistry and related fields.

The program director and faculty **must** participate in the assessment of the outcomes of the educational programs.

The program director should prepare students for and encourage them to seek board certification in implant dentistry.

### **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.

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 instrument, workspace, and radiation hygiene and protection, ionizing radiation, waterline cleanliness, hazardous materials and blood borne and infectious diseases. Policies **must** be provided to all students, faculty and appropriate support staff and continuously monitored for compliance. Additionally, policies on blood borne and infectious diseases **must** be made available to applicants for admission and patients.

Students, 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.

All students, 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.

**The use of private offices (facilities as a means of providing clinical experiences in advanced specialty education) is not approved.**

- A. Adequate clinical and radiographic facilities **must** be readily available in order to meet the objectives of the program. State-of-the-art imaging resources, including 3D radiographic imaging, should be accessible to students. There must be a sufficient number of operatories to efficiently accommodate the number of students enrolled. One operatory should be available to each student during clinic assignments.
- B. The institution **must** provide audiovisual capabilities for student seminars. Resources **must** be available to accurately reproduce slides, radiographs and other patient records.
- C. Dental laboratory facilities **must** be available for use by the program.
- D. There **must** be sufficient laboratory space to accommodate the number of students enrolled in the program, including provisions for storage of personal and laboratory armamentaria.
- E. Lecture, seminar, study space and administrative office space **must** be available for the conduct of the educational program as well as to conduct research.

- F. Facilities **must** include access to computer, photographic (including 3D radiographic imaging) and audiovisual resources for educational, administrative, clinical and research support.
- G. Adequate allied dental personnel **must** be assigned to the program to ensure clinical and laboratory technical support.
- H. Secretarial and clerical assistance **must** be available to meet the educational and administrative needs of the program.
- I. Students **must** have ready access to dental and biomedical libraries containing equipment for retrieval of information.

## Standard 4. Curriculum

### Curriculum and Program Duration

The advanced education program **must** be designed to provide special knowledge and skills beyond the D.D.S. or D.M.D. or equivalent non-US degree training and **must** be oriented to the accepted standards of specialty practice as set forth in specific requirements contained in this document. The goals of the clinical and didactic components of the program **must** be clearly identified and documented. Documentation of all program activities **must** be maintained by the program director and available for review.

The program **must** include at least 30 months of formal training. An academic program in a dental specialty or a two-year program in general dentistry or equivalent may fulfill up to 20 months of that requirement. The program director **must** assess the background of each student who receives advanced standing and design a curriculum that includes the implant content lacking in the prior program, thus assuring that the student has experience in all didactic and clinical aspects of this standard.

If an institution or program enrolls part-time students, the institution **must** have guidelines regarding enrollment of part-time students. Part-time students **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 on a part-time basis must assure that:

- 1) the educational experiences, including the clinical experiences and responsibilities, are the same as required of full-time students; and
- 2) there are an equivalent number of months spent in the program.

The curriculum **must** be designed to enable the student to attain skills representative of a clinician competent in the theoretical and practical aspects of implant dentistry. Advanced level instruction may be provided through the following: formal courses, seminars, lectures, self-instructional modules, clinical assignments and laboratory assignments.

- Written goals and objectives **must** be developed for all instruction included in this curriculum
- Content outlines **must** be developed for all didactic portions of the program
- Students **must** actively participate in seminars or conferences
- Students **must** present and participate in the preparation of diagnostic data, treatment planning and presentation of the results of patient treatment
- The amount of time devoted to didactic instruction and research **must** be at least 30% of the total educational experience

- A minimum of 60% of the total program time **must** be devoted to providing patient services, including direct patient care and laboratory procedures
- Students should have teaching experience, but this experience **must** not compromise the didactic or clinical program. If students teach, they **must** not spend more than 10% of their total program time in teaching
- Research experience that enhances the student's ability to interpret and critically analyze scientific literature should be included

### **Biomedical Sciences**

Although students entering postdoctoral programs will have taken biomedical science courses in their predoctoral dental curriculum, this material **must** be updated and reviewed in the program at an advanced level. Education in the biomedical sciences **must** provide the scientific basis needed to understand and apply the diagnostic and therapeutic skills gained during training in implant dentistry.

Formal instruction in the biomedical sciences **must** enable students to:

- Identify patients at risk for oral diseases and employ suitable preventive and/or interceptive treatment
- Diagnose and treat patients with oral diseases according to scientific principles and knowledge of current concepts of etiology, pathogenesis and patient management
- Evaluate critically the scientific literature, update their knowledge bases and evaluate pertinent scientific and technological issues as they arise

### ***Didactic Program: Biomedical Sciences***

Instruction **must** be provided at the *understanding* level in each of the following:

- Histology
- Oral pathology
- Pharmacology
- Infection control

Instruction **must** be provided at the *familiarity* level in each of the following:

- Biochemistry
- Immunology
- Microbiology
- Nutrition and diet

### ***Didactic Program: Oral Implantology and Related Disciplines***



The educational program **must** provide in-depth didactic instruction and clinical training to the level of proficiency in dental implants, as defined in each of the following areas

Didactic instruction in dental implants **must** include the following:

- Historic development of dental implants
- Biologic basis for dental implants and principles of implant biomaterials and bioengineering
- Indications and contraindications for dental implants of various designs and characteristics
- Prosthetic requirements for dental implants
- Pre-surgical examination and treatment planning for the use of dental implants
- Presurgical prosthetics
- Surgical placement of dental implants
- Evaluation of peri-implant tissues
- Treatment enhancement procedures
- Maintenance of dental implants
- Appropriate sterile or aseptic technique for the placement of dental implants

Instruction **must** be provided at the *in-depth* level in each of the following:

- Head and neck anatomy
- Bone physiology
- Diagnostic radiology
- Implant prosthodontics
- Occlusion
- Implant placement
- Site development
- Soft tissue management

Instruction **must** be provided at the *understanding* level in each of the following:

- Complete denture prosthodontics
- Fixed partial denture prosthodontics
- Removable partial denture prosthodontics
- Temporomandibular disorders and orofacial pain
- Biomaterials
- Medical emergencies
- Medically-compromised patients
- Geriatrics
- Pain and anxiety control
- Periodontics
- Endodontics
- Physical evaluation

- Research methodology

Instruction **must** be provided at the *familiarity* level in each of the following:

- Biostatistics
- Practice management
- Epidemiology
- Oral and maxillofacial surgery
- Maxillofacial prosthetics
- Orthodontics

Instruction should be provided in each of the following:

- Behavioral sciences
- Scientific writing
- Teaching methods

## Clinical Program

Students **must** be familiar with:

- Management of temporomandibular disorders and/or oral facial pain
- Various methods of pain and anxiety management
- Treatment of periodontal disease
- Concepts related to more advance therapy and coordination of this therapy with other disciplines

The program **must** provide sufficient clinical experiences for the student to be proficient in the comprehensive implant surgical and prosthetic treatment of patients with various categories of need that **must** include:

- Collecting, organizing, analyzing and interpreting diagnostic data
- Determining a diagnosis and prognosis
- Developing a comprehensive treatment plan and alternatives
- Communicating effectively to patients their treatment needs and the benefits and risks of treatment
- Communicating effectively with other health care professionals
- Surgical preparation of the implant site
- Appropriate aseptic techniques for surgical procedures
- Atraumatic exodontia
- Surgical placement of dental implants (including guided surgery techniques)
- Management of peri-implant tissues
- Evaluating critically the results of treatment
- Effectively utilizing the professional services of allied dental personnel, including but not limited to dental laboratory technicians, dental assistants and dental hygienists
- Diagnosing and managing complications of therapy
- Design, fabrication and insertion of implant supported and/or retained restorations
- Recall and follow-up care of patients

## STANDARD 5. ELIGIBILITY AND SELECTION

Dentists with the following qualifications are eligible to enter advanced education programs in implant dentistry:

- Graduates from institutions in the U.S. accredited by the Commission on Dental Accreditation
- Graduates from institutions in Canada accredited by the Commission on Dental Accreditation of the Canadian Dental Association
- Graduates of foreign dental schools who possess equivalent educational background and standing

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

### 5.1 Evaluation

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

- Periodically, but at least semiannually, evaluates the knowledge, skills and professional growth of its students, using appropriate written criteria and procedures
- Provide to students an assessment of their performance, at least semiannually
- Advances students to positions of higher responsibility only on the basis of an evaluation of their readiness for advancement
- Maintains a personal record of evaluation for each student that is accessible to the student and available for review during site visits

### 5.2 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.

### 5.3 Rights and Responsibilities

At the time of enrollment, the advanced education students **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 education students **must** be provided with written information that affirms their obligations and responsibilities to the institution, the program and program faculty.

## Standard 6. Research

Advanced education students **must** engage in scholarly, evidence-based activities.