

Case Western Reserve University
School of Dental Medicine

Competencies for Graduates

Background

Competence refers to an accumulation of knowledge, skills, experiences, and values in dental education that together help to define the necessary foundation for the development of individuals who wish to join the profession of dentistry. The goal of the educational program is to provide the student of dentistry with the experiences that allow a learning environment conducive to the development of the combined knowledge base, clinical skills, and the professional value system needed to enter the practice of dentistry.

This document defines the competency statements in broad terms, citing key areas of instruction and experiences. Each competency statement is accompanied by a set of descriptive educational outcomes that define the knowledge, skills, experiences and values that the faculty has determined to be contributory to the individual competency statement.

The competencies in this document have been defined by the faculty of the School of Dental Medicine to include the knowledge base, clinical skills and values that are requisite for the beginning practitioner to start their professional career. The notion of personal continuous improvement and life-long learning are philosophies that must be integrated into professional life. These qualities will provide a template for the new practitioner as he/she joins the community of professionals committed to improving oral health.

Case Western Reserve University School of Dental Medicine
Definition of Competency:

That level of foundation knowledge, clinical skills, experiences, and values that are necessary for students of dentistry to have acquired as they make the transition from a supervised educational program to the independent practice of general dentistry.

Definitions

Student active participation in patient treatment:

When students are actively engaged in the treatment of patients descriptive words such as “treat”, “perform”, “restore”, “provide” are utilized.

Student oversight and observation of clinical activities for patients:

If students are not actively engaged in the provision of direct care for patients, yet are involved in the oversight and coordination of care for evaluation, or referral to other health care providers, the word “manage” is used.

Use of the words “appropriate”, “accurate”:

The use of the words such as “appropriate”, “accurate” are not included in this document. The faculty assumes that all aspects of patient evaluation and care are conducted in an appropriate manner and are completed with satisfactory accuracy and quality assurance. There are systems designed in the educational program that provide check-points for the determination of quality assurance related to appropriate and accurate patient care.

It is also recognized that our program chooses to include educational components that are not defined by competencies. The faculty of the School of Dental Medicine has made a commitment to providing a program that addresses the needs of our patient populations and will provide the student with the necessary information to provide dental care. This encompasses a context of a perspective of the dental profession that is broadly-based on improving oral health and includes diverse elements such as new knowledge, emerging technology, and special patient populations among other constructs.

It is recognized that not every competency statement and its educational outcomes will individually satisfy all the components of “knowledge, skills, experiences, and values” in contributing to competence. The Competency Document is viewed broadly in this perspective.

Professionalism:

Encompasses a group of principles defined by ethical guidelines, standards for infection control, use of interpersonal skills in managing diverse patients, interpersonal skills, and use of behavioral principles applied to the practice of dentistry.

Oral Mucosal Disorders:

Refers to diseases of the oral soft tissues that could include infections, neoplastic disease, and systemic diseases with oral manifestations.

Practice Configurations:

Refers to various ways in which practitioners can arrange their practice structure such as solo or group practice, etc.

Patient Populations:

The faculty of the School of Dental Medicine defines the competency document in terms of preparation of students to care for child, adolescent, adult, and geriatric/special care individual patient groups, as well as the oral health of society.

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Competency 1: Graduates must be competent in patient assessment and diagnosis.

Educational outcomes. The graduate will be able to:

1. Examine the head, neck and stomatognathic system
2. Collect and interpret the medical, dental and social histories, including diagnostic aids and tests
3. Communicate with other health care professionals
4. Interpret the signs and symptoms of disease
5. Differentiate pathologic conditions from normal clinical findings
6. Develop diagnoses based upon assessment of collected data

Competency 2: Graduates must be competent in comprehensive treatment planning

Educational outcomes:

1. Demonstrate ability to develop optimal and alternative treatment plans which are properly sequenced
2. Obtain informed consent from the patient or patient representative
3. Evaluate the outcomes of treatment and modify treatment plans if necessary

Competency 3: Graduates must function under the standards of professionalism

Educational outcomes:

1. Apply the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health
2. Manage a diverse patient population and display the interpersonal skills to communicate and function in a multi-cultural work environment
3. Demonstrate knowledge of the codes, laws, rules and ethical principles that govern and influence the practice of dentistry
4. Evaluate new scientific and technical information, and identify the relevance to the practice of dentistry
5. Recognize the role of life-long learning and critical thinking using self-assessment as a step for continual improvement

Competency 4: Graduates must be competent in oral health promotion and disease prevention.

Educational Outcomes:

1. Educate individual patients about the etiology and development of oral diseases.
2. Educate individual patients about the treatment of dental disease and the prognosis with and without treatment
3. Provide preventive/maintenance regimens individualized to each patient's needs
4. Recognize the principles for the development, implementation, and maintenance of a recall system
5. Recognize the principles involved in community interventions to improve oral health and participate in clinical experiences in community oral health improvement

Competency 5: Graduates must be competent in the prescription and administration of pharmacologic agents used in the practice of dentistry.

Educational Outcomes:

1. Prescribe and monitor therapeutic agents for the prevention and treatment of oral diseases and infection
2. Recognize, and evaluate the potential for drug interactions
3. Demonstrate knowledge of common drugs used in dental and medical situations related to the practice of dentistry

Competency 6: Graduates must be competent in the prevention and management of dental emergencies.

Educational Outcomes:

1. Recognize, treat, and manage dental emergencies
2. Recognize the need for preventive therapies for patients at risk of traumatic injuries
3. Recognize, evaluate and manage uncomplicated localized odontogenic infections and common post-operative complications

Competency 7: Graduates must be competent in the recognition, prevention and short-term management of medical emergencies in the dental office.

Educational Outcomes:

1. Recognize the signs of a medical emergency
2. Assess patient risk for medical problems utilizing the health history, patient interview, and through communication with other health care professionals
3. Recognize the steps in management of medical emergencies
4. Maintain certification in Basic Life Support Techniques

Competency 8: Graduates must be competent in the diagnosis and management of pulpal and periradicular disease.

Educational outcomes:

1. Collect and interpret diagnostic data and determine a diagnosis
2. Perform non-surgical endodontic treatment
3. Explain the principles for the management of traumatic injuries to the tooth involving pulpal compromise and vitality

Competency 9: Graduates must be competent to diagnose, prevent, treat and manage periodontal disease.

Educational Outcomes:

1. Identify and manage periodontal risk/etiologic factors
2. Evaluate and diagnose the periodontal condition of patients
3. Perform dental prophylaxis and scaling and root planning
4. Demonstrate and evaluate proper home care procedures
5. Evaluate the outcomes of treatment

Competency 10: Graduates must be competent to treat dental disease and to repair defects with restorations and prostheses that are developed to conform to the anatomic, functional and esthetic requirements of patients.

Educational Outcomes:

1. Evaluate teeth and supporting structures, assessing prognosis, and develop plan for care
2. Identify and remove carious tooth structure and defective restorative material
3. Restore/replace teeth with dental materials based on requirements for form, function and esthetics
4. Prescribe laboratory fabrication of fixed or removable prostheses, recognize when modification is necessary
5. Describe principles of osseointegration and refer patients for evaluation

Competency 11: Graduates must be competent in the management of peri-operative pain and anxiety.

Educational Outcomes:

1. Prescribe medications for the control of pain and/or anxiety
2. Demonstrate effective local anesthesia techniques, and manage local anesthesia failures
3. Manage patients with anxiety and/or refer patients requiring special treatment
4. Demonstrate effective behavioral management techniques

Competency 12: Graduates must be competent to perform uncomplicated oral hard and soft tissue surgery.

Educational Outcomes:

1. Evaluate patient health history, dental surgical and pre-prosthetic needs to develop a diagnosis and surgical treatment plan
2. Perform uncomplicated oral surgical procedures
3. Manage intra-operative and post-operative surgical complications

Competency 13: Graduates must be competent to recognize temporomandibular joint disorders and malocclusion.

Educational Outcomes:

1. Recognize, diagnose and refer patients with temporomandibular disorders
2. Diagnose occlusal dysfunction
3. Recognize skeletal and/or occlusal abnormalities which require treatment or referral
4. Describe the principles of space maintenance

Competency 14: Graduates must be competent in the management of oral mucosal disorders.

Educational Outcomes:

1. Diagnose, evaluate and treat or refer patients with oral mucosal disorders
2. Describe the management of oral mucosal disorders
3. Describe laboratory tests useful in the assessment and diagnosis of oral mucosal disorders

Competency 15: Graduates must demonstrate their comprehension of practice management skills and business protocols that meet the needs for oral health care delivery.

Educational Outcomes:

1. Demonstrate skills as the leader of the health care team
2. Manage patient information
3. Demonstrate knowledge of risk management and quality assurance
4. Evaluate different models of oral health care management and delivery
5. Evaluate various practice configurations
6. Demonstrate use of information technology resources in contemporary dental practice

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