



Profile and Competences for the European Dentist



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Abstract

This paper presents the Profile and Competences for the European Dentist as approved by the General Assembly of the Association for Dental Education in Europe at its Annual Meeting, held in Cardiff, September 2004.

A taskforce drafted the document, which was then sent to all European Dental Schools. Reactions received were used to amend the document. European dental schools are expected to adhere to the profile and the 17 major competences but the supporting competences may vary in detail between schools. The document will be reviewed in five years time.

This paper will be disseminated to Ministries of Health, National Dental Associations and Dental Specialty Associations or Societies in Europe and these organizations will be asked to offer their comments. This information will be used in the reviewing process to be started in 2007. It is hoped that the availability of this document will assist dental schools in Europe to further harmonize and improve the quality of their curricula.

Key words: dental curriculum; profile; European dentist; competences

Introduction

The platform to discuss and decide upon the content of the curriculum for the undergraduate dental student in the European Union (EU) has been the Advisory Committee on the Training of Dental Practitioners (ACTDP). In 1995, the ACTDP published the document on proficiencies for the practice of dentistry in the EU (1). This committee comprised representatives from universities, ministries of health and national dental associations from all the EU member states.

In 1997, the European Union's Directorate for Education and Culture funded the DentEd thematic network project (1997-2000). This project was initiated by a group of dental educators mainly from the Association of Dental Education in Europe (ADEE). DentEd was designed to facilitate convergence towards higher standards in dental education and professional training. The DentEd project was followed by a second thematic network project 'DentEd Evolves' (2000-2003). One of the results of DentEd Evolves was the document 'Development of Professional Competences' (2). DentEd and DentEd Evolves have paved the way for expanding the network and making an inventory on the existing curricula for dental education in Europe.

In 1999, the Ministers of Education of 29 countries in the EU signed the Bologna Declaration, formally known as the European Higher Education Area. The ultimate aim of this agreement is to establish a European Higher Education Area by 2010 in which staff and students can move with ease and have recognition of their qualifications. One of the objectives is "to tune" the curricula in terms of structures, programs and actual teaching in order to make the programs more comparable. The Association for Dental Education in Europe (ADEE) and DentEd could play a role in tuning dental education in Europe.

ADEE is a standing organization, which, since 1975, has aimed to further professionalism in dentistry. It has recently established a permanent office in Dublin and shows a vast growth in membership over the last few years. Some 120 schools out of about 200 schools in Europe are now members. It is, therefore, legitimate that ADEE has an official role in representing the dental schools in Europe.

DentEd III (2004-2007) aims to continue to facilitate convergence towards higher standards in dental education in the EU. It aims to harmonise the various dental curricula and to transfer all expertise and activities, including the site-visitation and quality assurance systems, to ADEE. The first outcome of the DentEd III project, is the Profile and Competences document (PCD).

During the ADEE Annual Meeting held in Dresden in 2003 working groups discussed a document 'Modularisation of European Dental Education'. The reports from these working groups served as input for Taskforce I to draft the first version of the PCD. In the spring of 2004 this draft was sent to all European dental schools, both by surface mail and e-mail with the request to note those areas where there was consent and, if there was disagreement with any statement, to give criticisms or suggestions for improvement.

Reactions were received from 63 dental schools and other dental educational associations and processed in the revision of the PCD. All comments, suggestions and criticisms were discussed and amended where appropriate by the working party. The final PCD was unanimously approved by the General Assembly and thereby accepted by the European Dental schools as the leading document in national and internal debates on the profile and competences of the undergraduate dental curriculum. All dental schools have been asked to take care of and coordinate the (authorized) translation of the PDC into the local/native language.

The PDC is accessible on the ADEE website (<http://adee.dental.tcd.ie/>). This document will be sent to national dental associations, European dental associations in the various disciplines and ministries of health and welfare with the request to provide feedback on the document in terms of approval or amendment. These reactions will be used in the revision of the document that will start in 2007 in order to complete the process by the autumn of 2009.

It is envisaged that this document will:

- i. act as a leading document in curriculum revisions in European dental schools in harmonizing and converging towards a European Dental Curriculum while respecting national and regional socio-economic and cultural differences;
- ii. assist deans of dental schools in internal and national discussions;
- iii. be used by curriculum coordinators, teachers and students in dental schools in Europe;
- iv. help to facilitate staff and student exchange within Europe;
- v. be used in global meetings on dental education in order to converge globally;
- vi. help to raise the quality of the dental care provided by dentists educated in the European context;
- vii. serve as basic document on activities towards benchmarking and best practice.

Profile, Competences & Domains

Profile

In 1995, the Commission of the European Communities adopted a directive of the European Parliament and of the Council on the recognition of professional qualities (1). In that document the following has been stated on the profession of Dentistry: “All Member States must recognise the profession of dental practitioner as a specific profession distinct from that of medical practitioner, whether or not specialised in odontostomatology. The Member States must ensure that the training given to dental practitioners equips them with the skills needed for prevention, diagnosis and treatment relating to anomalies and illnesses of the teeth, mouth, jaws and associated tissues. The professional activity of the dental practitioner must be carried out by holders of a qualification as dental practitioner set out in this Directive”. It is stated further that dental training shall at least comprise a total of five years of full-time theoretical and practical study comprising a study given in a university, in a higher institute providing training and recognised as being of an equivalent level or under the supervision of a university.

The identification of an agreed profile and competences presents a particular challenge to dentistry where the new graduate is required to undertake safely the independent practice of dentistry, but where the educational and training programmes greatly differ in the existing and accession countries about to join the EU. It is hoped that the discussions on this document will contribute to facilitate the harmonisation and convergence of dental education in Europe. Achieving agreement on the profile and competences for the graduating dentist in the EU is the first step in tuning dentistry into the Bologna process.

In order to train dental students to become general dental practitioners, European educators have agreed on the profile of the graduating dentist as given in Table 1 (see page 24).

Competences

Dentists are expected to cooperate in the achievement of the total health of the patients through oral health management. A dentist must have acquired this ability through the achievement of a set of **competences** - abilities essential to begin independent, unsupervised dental practice. This should be achieved by the time he or she obtains the first professional degree.

The competences that follow are the basic level of attitudes; behaviour, knowledge and skills necessary for a graduate student to respond to the full range of circumstances encountered in general professional practice. This level of performance requires some degree of speed and accuracy consistent with patient well-being but not performance at the highest level possible. It also requires an awareness of what constitutes acceptable performance under the changing circumstances and a desire for self-improvement.

Competences support integration and merging of all disciplines, which should benefit students and also patients who are receiving treatment. Their definition will give schools

a benchmark with which to (1) review, redefine, and restructure the undergraduate curriculum; (2) review and improve student evaluation processes; and (3) establish and apply outcome measures to assess the effectiveness of the undergraduate programme. Competency statements can also be used as a reference in accreditation processes. In the USA and Canada official documents on competences have been published earlier (4). In the United Kingdom the General Dental Council has produced a document ‘The First Five Years’ (5). Likewise several dental schools have produced competency documents.

Domains

The present document is structured from the general to the more specific for every section. Seven domains have been identified that represent the broad categories of professional activity and concerns that occur in the general practice of dentistry. They are interdisciplinary in orientation:

- I Professionalism
- II Communication and interpersonal skills
- III Knowledge base, information handling and critical thinking
- IV Clinical information gathering
- V Diagnosis and treatment planning
- VI Establishment and maintenance of oral health
- VII Health promotion

Major competences:

Within each domain, one or more “Major Competences” is identified as relating to that domain’s activity or concern. A major competency is the ability to perform or provide a particular, but complex, service or task. Its complexity suggests that multiple and more specific abilities are required to support the performance of any major competency.

Supporting competences:

The more specific abilities could be considered subdivisions of the “Major Competency” and are termed “Supporting Competences”. Achievement of a major competency requires the acquisition and demonstration of **all** supporting competences related to that particular service or task. A suggested provisional list is included to be used by individual schools or countries to complete and modify to meet particular national or regional needs.

In making this subdivision into major and supporting competences, ADEE envisages that all European Schools will adhere to the major competences as described in this document, but the supporting competences may vary in detail between schools.

Domain I: Professionalism

MAJOR COMPETENCE: PROFESSIONAL BEHAVIOR

On graduation, a dentist must have contemporary knowledge and understanding of the broader issues of dental practice, be competent in a wide range of skills, including research, investigative, analytical, problem-solving, planning, communication, presentation and team skills and understand their relevance in dental practice. Specifically, a dentist must:

SUPPORTING COMPETENCES:

- 1.1) *Be competent to display appropriate caring behaviour towards patients.*
- 1.2) *Be competent to display appropriate professional behaviour towards all members of the dental team.*
- 1.3) *Have knowledge of social and psychological issues relevant to the care of patients.*
- 1.4) *Be competent to seek continuing professional development (CPD) allied to the process of continuing education on an annual basis, in order to ensure that high levels of clinical competence and evidence-based knowledge are maintained. This should be readily demonstrated with the use of a CPD logbook.*
- 1.5) *Be competent to manage and maintain a safe working environment with special reference and to all aspects of cross-infection control.*
- 1.6) *Have knowledge and awareness of the importance of his/her own health and its impact on the ability to practice as a dentist (ergonomics and occupational diseases).*
- 1.7) *Be competent to deal with other members of the dental team with regard to health and safety.*

MAJOR COMPETENCE: ETHICS AND JURISPRUDENCE

The graduating dentist must have knowledge and understanding of the moral and ethical responsibilities involved in the provision of care to individual patients and to populations, and have knowledge of current laws applicable to the practice of dentistry. In particular, the graduating dentist must:

SUPPORTING COMPETENCES:

- 1.8) *Have knowledge of the ethical principles relevant to dentistry and be competent at practising with personal and professional integrity, honesty and trustworthiness.*
- 1.9) *Be competent at providing humane and compassionate care to all patients.*

- 1.10) *Have knowledge and understanding of patients' rights, particularly with regard to confidentiality and informed consent, and of patients' obligations.*
- 1.11) *Have knowledge and awareness that dentists should strive to provide the highest possible quality of patient care at all times.*
- 1.12) *Be competent at selecting and prioritising treatment options that are sensitive to each patient's individual needs, goals and values, compatible with contemporary therapy, and congruent with a comprehensive oral health care philosophy.*
- 1.13) *Acknowledge that the patient is the centre of care and that all interactions, including diagnosis, treatment planning and treatment, must have the patient's best interests as the focus of that care.*
- 1.14) *Be competent in respecting patients and colleagues without prejudice concerning gender, diversity of background and opportunity, language and culture.*
- 1.15) *Be competent at recognising their own limitations and taking appropriate action to help the incompetent, impaired or unethical colleague and their patients.*
- 1.16) *Have knowledge of the judicial, legislative and administrative processes and policy that impact all aspects of dentistry.*
- 1.17) *Be competent in understanding audit and clinical governance,*

Domain II: Communication and Interpersonal Skills

MAJOR COMPETENCE: COMPETENT IN COMMUNICATING

The graduating dentist must be competent in communicating effectively with patients, their families and associates, and with other health professionals involved in their care. In particular, he or she must:

SUPPORTING COMPETENCES:

- 2.1) *Establish a patient-dentist relationship that allows the effective delivery of dental treatment.*
- 2.2) *Have knowledge of behavioural sciences and communication including behavioural factors (incl. factors as ethnicity and gender) that facilitate the delivery of dental care and have knowledge of the role of psychological development in patient management.*
- 2.3) *Be competent in identifying patient expectations (needs and demands) and goals for dental care.*

- 2.4) *Be competent at identifying the psychological and social factors that initiate and/or perpetuate dental, oral and facial disease and dysfunction and diagnose, treat or refer, as appropriate.*
- 2.5) *Be competent at sharing information and professional knowledge with both the patient and other professionals, verbally and in writing, including being able to negotiate and give and receive constructive criticism.*
- 2.6) *Be competent at applying principles of stress management to oneself, to patients and to the dental team as appropriate.*
- 2.7) *Be competent at working with other members of the dental team.*

Domain III: Knowledge Base, Information Handling and Critical Thinking

MAJOR COMPETENCE: BASIC BIOMEDICAL, TECHNICAL & CLINICAL SCIENCES

A graduating dentist must have sufficient knowledge and understanding of the basic biomedical, technical and clinical sciences to understand the normal and pathological conditions relevant to dentistry and be competent to apply this information to clinical situations. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 3.1) *Have knowledge and understanding of the scientific basis of dentistry, including the relevant basic and biomedical sciences, the mechanisms of knowledge acquisition, scientific method and evaluation of evidence. Be able to use this knowledge to interpret recent developments and apply relevant benefits to clinical practice.*
- 3.2) *Have knowledge of the scientific principles of sterilisation, disinfection and antisepsis to prevent cross-infection in clinical practice.*
- 3.3) *Have knowledge of the science of dental biomaterials and their limitations and be aware of environmental issues relevant to their use (biocompatibility).*
- 3.4) *Have knowledge of the hazards of ionising radiations and their effects on biological tissues, together with the regulations relating to their use, including radiation, protection and dose reduction.*
- 3.5) *Have knowledge of disease processes including infection, inflammation, disorders of the immune system, degeneration, neoplasia, metabolic disturbances and genetic disorders.*

- 3.6) *Be familiar with the pathological features and dental relevance of common disorders of the major organ systems, and have knowledge of the oral manifestations of systemic disease.*
- 3.7) *Have knowledge of the aetiology and pathological processes of oral diseases (in individual and in society) in order to facilitate their prevention, diagnosis and management.*

MAJOR COMPETENCE: ACQUIRING AND USING INFORMATION

The graduating dentist must be competent at acquiring and using information and in a critical, scientific and effective manner. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 3.8) *Be competent in the use of contemporary information technology for documentation, continuing education, communication, management of information and applications related to health care.*
- 3.9) *Be competent in protecting confidential patient data.*
- 3.10) *Be competent in regularly assessing personal knowledge base and in seeking additional information to correct deficiencies.*
- 3.11) *Be competent in recognizing his or her clinical limitations and refer appropriately.*
- 3.12) *Be competent in evaluating the validity of claims related to the benefits-risks ratio of products and techniques.*
- 3.13) *Be competent in evaluating published clinical and basic science research and integrate this information to improve the oral health of the patient.*
- 3.14) *Be competent in applying experience, scientific knowledge and methods to manage problems of oral health care.*

Domain IV: Clinical Information Gathering

MAJOR COMPETENCE: OBTAINING AND RECORDING A COMPREHENSIVE MEDICAL HISTORY OF THE PATIENT'S ORAL AND DENTAL STATE

On graduation, a dentist must be competent in obtaining and recording a comprehensive medical history and a history of the patient's oral and dental state. This will include biological, medical, psychological and social information in order to evaluate the oral condition in patients of all ages. The dentist will, furthermore, be competent in performing **an appropriate physical examination**; interpreting the findings and organising further investigations. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 4.1) *Be competent to identify the chief complaint of the patient and obtain a history of present illness as part of a comprehensive medical history.*
- 4.2) *Be competent at performing a dietary analysis.*
- 4.3) *Be competent at producing a patient record and maintain accurate patient treatment record entries.*
- 4.4) *Be competent at identifying abnormal patient behaviour (including anxiety).*
- 4.5) *Be competent at initiating an appropriate written medical consultation or referral in order to clarify a question related to the patient's systemic health.*
- 4.6) *Be competent at performing an extraoral and intraoral examination appropriate for the patient, including assessment of vital signs, and record those findings.*
- 4.7) *Be competent at completing and charting a comprehensive dental, periodontal and mucosal examination.*
- 4.8) *Be competent at taking radiographs of relevance to dental practice, interpreting the results and have knowledge of other forms of medical imaging that are of relevance to dentistry.*
- 4.9) *Be competent in managing ionising radiation.*
- 4.10) *Be familiar with the principles that underlie dental radiographic techniques.*
- 4.11) *Have knowledge of appropriate clinical laboratory and other diagnostic procedures and tests, understand their diagnostic reliability and validity, and interpret their results.*
- 4.12) *Be competent at producing diagnostic casts, mounted and with interocclusal records.*
- 4.13) *Be competent at assessing sensory and motor function of the mouth and jaws.*
- 4.14) *Be competent at assessing salivary function.*
- 4.15) *Be competent at assessing orofacial pain.*
- 4.16) *Be competent at assessing facial form and deviations from the normal.*
- 4.17) *Be competent at recognizing signs of patient abuse and neglect and know how to report as required to the appropriate legal authorities.*

Domain V: Diagnosis and Treatment Planning

MAJOR COMPETENCE: DECISION-MAKING, CLINICAL REASONING AND JUDGEMENT

On graduation, a dentist must be competent in decision-making, clinical reasoning and judgement in order to develop a **differential, provisional or definitive diagnosis** by interpreting and correlating findings from the history, clinical and radiographic examination and other diagnostic tests, taking into account the social and cultural background of the individual. A dentist must be competent at forming a diagnosis and treatment plan for patients of all ages (needs and demands), but should recognise those treatments that are beyond his/her skills and need to be **referred to a specialist**. He or she must:

SUPPORTING COMPETENCES:

- 5.1) *Be competent at obtaining informed consent e.g. for operative procedures.*
- 5.2) *Be competent at recognising the presence of systemic disease and know how the disease and its treatment affect the delivery of dental care.*
- 5.3) *Be competent at identifying the location, extent and degree of activity of dental caries and tooth wear.*
- 5.4) *Be competent at diagnosing abnormalities in dental or periodontal anatomic form that compromise periodontal health, function or aesthetics and identify conditions, which require management.*
- 5.5) *Be competent at distinguishing the difference between pulpal health and disease and identify conditions that require management.*
- 5.6) *Be competent at recognising the clinical features of oral mucosal diseases or disorders, including oral neoplasia, and identify conditions that require management.*
- 5.7) *Be competent at recognising maxillofacial problems, the clinical characteristics of acute and chronic craniofacial pain of somatic, neurogenic and psychogenic origin, and identifying and diagnosing conditions that require management by the dentist or other health providers.*
- 5.8) *Be competent at recognising patient behaviour contributing to orofacial problems, and identifying conditions that require diagnosis, prevention and management.*
- 5.9) *Be competent at determining a patient's aesthetic requirements and determine the degree to which those requirements can be met.*

- 5.10) *Be competent at carrying out an orthodontic assessment.*
- 5.11) *Be familiar with the diagnosis of temporomandibular joint disorders.*
- 5.12) *Be competent at diagnosing medical emergencies.*
- 5.13) *Have knowledge of the role of sedation in the management of adult and young patients be competent in when, how and where to refer a patient for sedation and general anaesthesia and at making other appropriate referrals based on clinical assessment.*
- 5.14) *Be competent to manage patients from different social and ethnic backgrounds.*

Domain VI: Establishment and Maintenance of Oral Health

MAJOR COMPETENCE: EDUCATE PATIENTS AND MANAGE COMPREHENSIVE PRIMARY CARE

The graduating dentist must be competent to educate patients and manage comprehensive primary care for patients of all ages; that emphasizes **current concepts of prevention and treatment of oral disease**; and supports the maintenance of systemic and oral health. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 6.1) *Have knowledge of the concepts of minimal intervention and of providing a comprehensive approach to oral care.*
- 6.2) *Be competent in applying evidence-based treatment.*
- 6.3) *Be competent at oral hygiene instruction, topical fluoride therapy and fissure sealing.*
- 6.4) *Be competent to educate patients concerning the aetiology and prevention of oral disease and encourage them to assume responsibility for their oral health.*
- 6.5) *Be competent to prescribe and monitor the effects of appropriate pharmaceutical agents including the chemical control of dental plaque.*
- 6.6) *Be competent to provide dietary counselling and nutritional education relevant to oral health.*
- 6.7) *Be competent to develop strategies to predict, prevent and correct deficiencies in patient's oral hygiene regimens and provide patients with strategies to control adverse oral habits.*

- 6.8) *Be competent to evaluate all treatment results and provide or recommend additional action and maintenance.*
- 6.9) *Be competent at performing preventive and restorative procedures that preserve tooth structure, prevent hard tissue disease and promote soft tissue health.*

MAJOR COMPETENCE: ORAL MEDICINE MANAGEMENT

On graduation, the dentist must be competent to diagnose and manage common oral mucosal diseases and disorders in patients of all ages. In particular, he or she must:

SUPPORTING COMPETENCES:

- 6.10) *Be competent at counselling patients regarding the nature and severity of non-life-threatening oral mucosal diseases and disorders, providing the patient with realistic options and expectations of management.*
- 6.11) *Be competent at performing limited soft tissue diagnostic procedures.*
- 6.12) *Be competent to participate in the diagnosis and proper referral of the patient with life-threatening oral mucosal diseases.*
- 6.13) *Be competent at managing acute oral infections, including patient referral and prescription of appropriate drugs.*
- 6.14) *Be familiar with the treatment of common oral medical disorders, both medical and surgical.*
- 6.15) *Have knowledge concerning the effects of tobacco on the oral mucosa and ways in which to help patients who wish to stop using tobacco.*

MAJOR COMPETENCE: PERIODONTAL MANAGEMENT

The new graduate in dentistry must be competent to manage periodontal diseases in patients of all ages. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 6.16) *Be competent at evaluating the periodontium, establishing a diagnosis and prognosis and formulating a treatment plan.*
- 6.17) *Be competent at educating patients concerning the aetiology of periodontal disease and encourage them to assume responsibility for their oral health.*
- 6.18) *Be competent at instructing patients in appropriate oral hygiene methods compatible with periodontal health.*

- 6.19) *Be competent at supragingival and subgingival scaling and root debridement, using both powered and manual instrumentation and in stain removal and prophylaxis.*
- 6.20) *Have knowledge of the secondary periodontal aetiological factors.*
- 6.21) *Be competent to diagnose, explain and discuss the need for advanced periodontal surgical procedures and the proper method of referral for speciality care.*
- 6.22) *Be competent at evaluating the results of periodontal treatment and establish and monitor a maintenance programme, including a discussion of risk factors.*

MAJOR COMPETENCE: CARIES AND ENDODONTIC MANAGEMENT

The new dentist must be competent to manage caries, pulpal and peri-radicular disorders in patients of all ages. In particular, he or she must:

SUPPORTING COMPETENCES:

- 6.23) *Be competent at assessing patient risk for caries and implement caries prevention strategies.*
- 6.24) *Be competent at removing or otherwise treating carious tooth tissue using techniques that maintain pulp vitality and restore the tooth to form, function and aesthetics with appropriate materials, preventing hard tissue disease and promoting soft tissue health.*
- 6.25) *Be competent at performing therapeutic procedures designed to preserve the defence mechanism of the dental pulp.*
- 6.26) *Be competent at performing endodontic treatment on uncomplicated single and uncomplicated multi-rooted teeth.*
- 6.27) *Be competent at recognising indications for surgical and complicated non-surgical root canal therapy and take appropriate action.*

MAJOR COMPETENCE: SURGICAL PROCEDURES

On graduation, a dentist must be competent to treat and manage conditions requiring simple reparative surgical procedures of the hard and soft tissues in patients of all ages, including the extraction of teeth, the removal of roots when necessary and the performance of minor soft tissue surgery, and to apply appropriate pharmaceutical agents to support treatment. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 6.28) *Be competent to perform uncomplicated extraction of erupted teeth.*

- 6.29) *Have knowledge of the management of trauma in deciduous and permanent dentitions and be familiar with the surgical and non-surgical aspects of the management of maxillofacial trauma.*
- 6.30) *Be competent to perform surgical extraction of an uncomplicated unerupted tooth and the uncomplicated removal of fractured or retained roots.*
- 6.31) *Be competent to perform uncomplicated pre-prosthetic surgical procedures.*
- 6.32) *Be competent to manage and treat common intra-operative and postoperative surgical complications.*
- 6.33) *Be competent to describe the indications and contraindications, principles and techniques of surgical placement of osseointegrated implant fixtures.*

MAJOR COMPETENCE: PAIN AND ANXIETY MANAGEMENT

On graduation, a dentist must be competent to employ appropriate techniques to manage orofacial pain, discomfort and psychological distress. In particular, he or she must:

SUPPORTING COMPETENCES:

- 6.34) *Be competent at infiltration and block local anaesthesia in the oral cavity for restorative and surgical procedures or other treatment, as needed, for orofacial pain management, including management of potential complications of local anaesthesia.*
- 6.35) *Be competent at diagnosing orofacial pain, treating it as appropriate or referring the patient to relevant specialists.*
- 6.36) *Have knowledge of inhalation and intravenous conscious sedation techniques for dental procedures.*
- 6.37) *Be competent to select and prescribe drugs for the management of preoperative, operative and postoperative pain and anxiety.*
- 6.38) *Be competent at identifying the origins and continuation of dental fear and anxiety and manage this fear and anxiety with behavioural techniques.*

MAJOR COMPETENCE: RESTORATIVE/PROSTHODONTIC MANAGEMENT

The new graduate must be competent to restore defective and/or missing teeth to acceptable form, function and aesthetics in patients of all ages. Particularly, he or she must:

SUPPORTING COMPETENCES:

- 6.39) *Be competent at designing effective indirect restorations, anterior and posterior crowns, post crowns, simple bridges, complete and partial dentures and bite-*

rising splints and undertake some of these procedures as is relevant to the country of practice.

- 6.40) *Have knowledge and experience of the design and laboratory procedure used in the production of crowns, bridges, partial and complete dentures and be able to make appropriate chair-side adjustment to these restorations.*
- 6.41) *Be competent at describing for patients the principles and techniques of aesthetic treatments including differences between patient expectations and achievable results.*
- 6.42) *Be competent at describing for patients the principles and techniques involved in the use of osseointegrated implants for restorations.*
- 6.43) *Be familiar with the potential and limitations (risks and benefits) of dental technological procedures and the handling of dental materials in restoring the dentition.*

MAJOR COMPETENCE: ORTHODONTIC MANAGEMENT

On graduation, a dentist must be competent at managing limited developmental or acquired dento-alveolar, growth related and functional abnormalities of the primary, mixed and permanent dentition. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 6.44) *Be familiar with the principles of treatment of dento-facial anomalies including the common orthodontic/maxillofacial procedures involved.*
- 6.45) *Be competent at diagnosing orthodontic treatment need and be familiar with contemporary treatment techniques.*
- 6.46) *Be competent to design, insert and adjust space maintainers and design, insert and adjust active removable appliances to move a single tooth or correct a crossbite.*
- 6.47) *Be competent at managing appropriately all forms of orthodontic emergency including referral when necessary.*
- 6.48) *Be competent to identify pernicious oral habits that may exacerbate malocclusion, and prevent their consequences through patient education and training and appliance therapy, as needed.*

MAJOR COMPETENCE: EMERGENCY TREATMENT

The graduate dentist must be competent effectively to prevent and manage the majority of medical and dental emergency situations encountered in the general practice of dentistry. In particular, he or she must:

SUPPORTING COMPETENCES:

- 6.49) *Be competent to develop and implement an effective strategy for preventing dental and medical emergencies in the dental surgery and establish policies for the management of such emergencies should they occur.*
- 6.50) *Be competent at carrying out resuscitation techniques and immediate appropriate management of cardiac arrest, anaphylactic reaction, upper respiratory obstruction, collapse, vasovagal attack, epileptic fit, haemorrhage, inhalation or ingestion of foreign bodies, hypoglycaemia, and diabetic coma or other medical emergencies that may occur in the course of dental practice.*
- 6.51) *Be competent to identify and manage dental emergencies including those of pulpal, periodontal or traumatic origin.*
- 6.52) *Be competent to identify and promptly refer dental or medical emergencies, which are beyond the scope of management by a general dentist.*

Domain VII: Health Promotion

MAJOR COMPETENCE: IMPROVING ORAL HEALTH OF INDIVIDUALS, FAMILIES AND GROUPS IN THE COMMUNITY

The new dentist must be competent at improving the oral health of individuals, families and groups in the community. Specifically, he or she must:

SUPPORTING COMPETENCES:

- 7.1) *Be competent in applying the principles of health promotion and disease prevention.*
- 7.2) *Have knowledge of the organisation and provision of healthcare in the community and in the hospital service.*
- 7.3) *Be competent in understanding the complex interactions between oral health, nutrition, general health, drugs and diseases that can have an impact on oral health care and oral diseases.*
- 7.4) *Have knowledge of the prevalence of the common dental conditions in the country of training/practice.*
- 7.5) *Have knowledge of the importance of community-based preventive measures.*
- 7.6) *Have knowledge of the social, cultural and environmental factors, which contribute, to health or illness.*

Document Review

This document, as approved by the General Assembly of ADEE at its Annual Meeting in Cardiff in September 2004, needs to be reviewed again in five years time, i.e., **September 2009**.

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Table 1. Agreed profile for the new European Dentist as approved by the general Assembly of ADEE, Cardiff 2004.

The new graduating European dentist should:

- ❖ have had a broad academic and dental education and be able to function in all areas of clinical dentistry;
 - ❖ be trained sufficiently in dental science;
 - ❖ be able to work together with other dental and health care professionals in the health care system; should have good communicative skills;
 - ❖ be prepared for life-long learning and continuing professional development;
 - ❖ be able to practice evidence-based comprehensive dentistry based on a problem solving approach, using basic theoretical and practical skills.
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Table 2. Domains and definitions of major and supporting competences as used in the document.

Domains: represent the broad categories of professional activity and concerns that occur in the general practice of dentistry. They are interdisciplinary in orientation:

- I Professionalism
- II Communication and interpersonal skills
- III Knowledge base, information handling and critical thinking
- IV Clinical information gathering
- V Diagnosis and treatment planning
- VI Establishment and maintenance of oral health
- VII Health promotion

Major competences: Within each domain, one or more “Major Competences” is identified as relating to that domain’s activity or concern. A major competency is the ability to perform or provide a particular, but complex, service or task. Its complexity suggests that multiple and more specific abilities are required to support the performance of any major competency.

Supporting competences: The more specific abilities could be considered subdivisions of the “Major Competency” and are termed “Supporting Competences”. Achievement of a major competency requires the acquisition and demonstration of **all** supporting competences related to that particular service or task.
