Appendix 1

Profile and competences for the graduating European dentist – update 2009

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The identification of an agreed ‘profile and competences’ presents a particular challenge to dentistry. The new graduate is required to safely undertake the independent practice of dentistry, but education and training programmes differ greatly both amongst old EU countries and between these countries and accession countries which recently joined the EU. It is hoped that the discussions on this document will contribute to further harmonisation and convergence of dental education in Europe.

To train dental students to become general dental practitioners, European educators have agreed on the profile of the graduating dentist as presented in Table 1.

<table>
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<tr>
<th>TABLE 1. Agreed profile for the new European Dentist as approved by the General Assembly of the Association for Dental Education in Europe, Cardiff 2004</th>
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<td>On graduation the new European dentist should:</td>
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<td>• Have had a broad academic dental education and be able to function in all areas of clinical dentistry</td>
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<td>• Be trained in biomedical science</td>
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<td>• Be able to work together with other dental and health care professionals in the health care system</td>
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<td>• Have good communicative skills</td>
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<td>• Be prepared to undertake continuing professional development supporting the concept of life-long learning</td>
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<td>• Be able to practice evidence-based dentistry based through a problem solving approach, using basic theoretical and practical skills</td>
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Competences

The competences, at the graduation, are the basic level of professional behaviour, knowledge and skills necessary for a graduating dentist 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 wellbeing. It also requires an awareness of what constitutes acceptable performance under changing circumstances and a desire for self-improvement. Competences should support integration and merging of all disciplines, which should benefit dentists in training and also patients who are receiving treatment.

The graduating dentist should learn to undertake a holistic approach to the management of their patients. They should have knowledge of and adhere to the concept of dental team working in their approach to patient management; all this should be supported by an ethos of achieving continuing professional development (CPD) and promoting life-long learning to achieve a continuum of education from undergraduate to retirement.
Domains

The present document is structured from the general to the more specific for every section. Seven domains (listed below) have been identified that represent the broad categories of professional activity and concerns that occur in the general practice of dentistry. The domains are interdisciplinary in orientation and must embrace an element of critical thinking; they may apply in differing ways to patients of all ages, including children, adolescents, adults and the elderly within a given population:

I Professionalism
II Interpersonal, Communication and Social Skills
III Knowledge Base, Information and Information literacy
IV Clinical Information Gathering
V Diagnosis and Treatment Planning
VI Therapy: Establishing and Maintaining Oral Health
VII Prevention and Health Promotion

Major competences

Within each domain, at least one ‘major competence’ is identified as relating to that domain’s activity. A major competence is the ability of a dentist on graduation 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 competence.

In this document the following definitions have been applied to the competences:
- Be competent at: a dentist should on graduation demonstrate a sound theoretical knowledge and understanding of the subject together with an adequate clinical experience to be able to resolve clinical problems encountered independently or without assistance.
- Have knowledge of: a dentist should on graduation demonstrate a sound theoretical knowledge and understanding of the subject, but may have only limited clinical/practical experience.
- Be familiar with: a dentist should on graduation demonstrate a basic understanding of the subject but need not have clinical experience or be expected to carry out procedures independently.

Domain I: professionalism
Major competence: professional attitude and behaviour
On graduation, a dentist must be competent in a wide range of skills, including investigative, analytical, problem solving, planning, communication, and presentation skills and should demonstrate a contemporary knowledge and understanding of the broader issues of dental practice. The dentist should understand the relevance of these issues, including research, team building and leadership skills in clinical dental practice.

Major competence: ethics and jurisprudence
On graduation a dentist must display knowledge of the content and have a thorough understanding of the moral and ethical responsibilities involved in the provision of care to individual patients, to populations and communities. The dentist must demonstrate knowledge of contemporary laws applicable to the practice of dentistry.

Domain II: interpersonal, communication and social skills
Major competence: communication
On graduation a dentist must be competent to communicate effectively, interactively and reflectively with patients, their families, relatives and carers and with other health professionals involved in their care, irrespective of age, social and cultural background.

**Domain III: knowledge base, information and information literacy**

**Major competence: application of basic biological, medical, technical and clinical sciences**

On graduation a dentist must be competent to apply knowledge and understanding of the basic biological, medical, technical and clinical sciences to recognise the difference between normal and pathological conditions/disorders relevant to clinical dental practice and understand the bases of these.

**Major competence: acquiring and using information**

On graduation, the dentist must be competent at demonstrating appropriate information literacy to acquire and use information from library and other databases and display the ability to use this information in a critical, scientific and effective manner. A dentist should demonstrate an ability to maintain their professional knowledge and understanding throughout their professional life.

**Domain IV: clinical information gathering**

**Major competence: obtaining and recording a complete history of the patient’s medical, oral and dental state**

On graduation, a dentist must be competent at obtaining and recording a complete history of the patient’s medical, oral and dental state. This will include biological, medical, psychological and social information to evaluate the oral and dental condition in patients. In addition, the dentist will be competent at performing an appropriate physical examination; interpreting the findings and organising further investigations when necessary to arrive at an appropriate diagnosis.

**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 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 patient. A dentist must be competent at formulating and recording a diagnosis and treatment plan which meets the needs and demands of patients. For treatments that are beyond their skills, a dentist should be competent to be able to refer on for an appropriate specialist opinion and/or treatment.

**Domain VI: therapy: establishing and maintaining oral health**

This domain provides a broad range of major and supporting competences on establishing and maintaining oral health. In areas where specific competencies or learning outcomes are not available it is hoped that this PCD will encourage specialist educators to produce this information. This domain may relate to patients from different age groups (children, adolescents, adults and the elderly) or specifically to one particular age group and to those patients with special needs and requirements. On graduation the dentist should be aware of their limitations and know when to refer a patient for specialist dental or medical care.

**Major competence: establishing and maintaining oral health**

On graduation, the dentist must be competent at:

(6.1) Educating patients and managing primary oral health care for patients at all stages in their life (including children, adolescents, adults and the ageing population/elderly) appropriately, effectively and safely, emphasising current concepts of prevention, risk assessment and treatment of oral disease which supports the maintenance of systemic and oral health and improves the quality of life for the individual.

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(6.2) Treating patients whose special needs, desires and requirements (eg children) may influence their dental care and know when to refer.
(6.3) Employing appropriate techniques to manage oro-facial pain, including TMJ disorders, discomfort and psychological distress.
(6.4) Managing periodontal disease.
(6.5) Managing caries and other hard tissue tooth loss.
(6.6) Managing pulpal and peri-radicular disease and disorders.
(6.7) Restoring defective, non-defective and/or missing teeth to acceptable form, function and aesthetics.
(6.8) Planning and performing all common prosthetic procedures, including tooth preparation and impression taking.
(6.9) Understanding and applying the biomechanical principles of fixed and removable prostheses commonly used to replace missing teeth.
(6.10) Treating and managing conditions requiring minor surgical procedures of the hard and soft tissues, and to apply and/or prescribe appropriate pharmaceutical agents to support treatment.
(6.11) Managing common oral mucosal diseases and disorders.
(6.12) Managing minor developmental or acquired dentoalveolar, growth-related and functional abnormalities of the primary, mixed and permanent dentition.
(6.13) Preventing and managing the majority of medical and dental emergency situations encountered in clinical dental practice.

**Domain VII: prevention and health promotion**

**Major competence: improving oral health of individuals, families and groups in the community**

On graduation a dentist must be competent at promoting and improving the oral health of individuals, families and groups in the community.