

## Update of The Erasmus Program for postgraduate education in Europe

During the NEBEOP meeting June 14, 2010 in Portorož, SLOVENIA, a Task Force group was installed to make proposals for an update of the Erasmus program during the academic year 2010-2011 to be discussed in the next NEBEOP meeting.

The members of Task Force group are:

- Kathryn Derringer (UK)
- Ted Eliades (Greece)
- Marie Filleul (France)
- Jan Huggare (Sweden), chairperson
- Roberto Martina (Italy)
- Pertti Pirttiniemi (Finland)
- Sabine Ruf (Germany) – since June 2011
- Rainer Schwestka-Polly (Germany)

The taskforce presented their proposal to the Council of NEBEOP for further consideration:

- Anne Marie Kuijpers-Jagtman (the Netherlands)
- Stavros Kiliaridis (Switzerland)
- Pertti Pirttiniemi (Finland)

This document contains the proposed changes of the Task Force, the Council and the participants in the NEBEOP meeting in Istanbul (June 19, 2011).

This update concerns the section 6 of the original Erasmus Postgraduate Programme as published in 1992, entitled *'Three years Postgraduate Programme in Orthodontics: the Final Report of the Erasmus Project'* (Vander Linden FPGM, coordinator and reporter. *Europ J Orthod* 1992;14:85-94).

section	NAME	Old # hrs	New #hrs
<b>A</b>	General biological and medical subjects	305	310
<b>B</b>	Basic orthodontic subjects	315	325
<b>C</b>	General orthodontic subjects	350	340
<b>D</b>	Orthodontic techniques	195	195
<b>E</b>	Interdisciplinary treatment procedures	70	125
<b>F</b>	Management of health and safety	20	25
<b>G</b>	Practice management, administration, and ethics	45	45
<b>H</b>	Extramural educational activities	pm	pm
	Total theoretical hours	1365	1365

## 6. OBJECTIVES OF OBLIGATORY THEORETICAL EDUCATION OF ORTHODONTISTS

The hours indicated in parentheses in the following sections are the minimal number of hours necessary for the average student to devote to the subject in order to achieve the required level of comprehension (= a sound knowledge and understanding of all subjects). **In addition the students are required to achieve a level of competency in the subjects indicated in chapter 7. The term 'competent to' means that students should have 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.**

At least one-third of the theoretical education hours must be spent in staff-student contact activities (lectures, seminars, workshops, etc.).

### A. General biological and medical subjects (310 hrs)

#### A1. Paediatrics (20 hrs)

Knowledge of:

- somatic growth and its variations
- adolescent growth spurt and its relationship to growth of the craniofacial complex
- genetic and environmental factors that influence somatic growth
- concept of biological age, skeletal age, dental age, and stages of sexual development
- endocrinology related to growth and development
- allergy, eczema related to orthodontics
- eating disorders
- overweight in children and adolescents
- blood diseases, leukaemia
- diabetes
- DAMP (Deficits in Attention, Motor Control and Perception)
- **Child abuse**

#### A2. Anatomy and embryology of craniofacial structures (40 hrs)

Knowledge of:

embryology of craniofacial structures for understanding of

- normal growth and development of the face, jaws, and teeth
- teratogenesis
- development of clefts and other facial congenital malformations

anatomical features, tissue systems, and functional anatomy essential for comprehension of

- growth of the craniofacial skeleton
- development of skeletal deformities
- dentofacial orthopaedics

- ENT aspects and phonetics related to orthodontics
- orthognathic surgical correction of facial dysmorphology and malocclusion

### **A3. Genetics (25 hrs)**

Knowledge of:

genetic principles essential for comprehension of:

- normal development of the dento-facial complex
- craniofacial malformations
- prenatal diagnosis of craniofacial anomalies
- genetic counselling
- molecular genetic methods

### **A4. Cell and molecular biology, immunology and microbiology (30 hrs)**

Knowledge of:

Cytological, histo-chemical, and microbiological principles essential for the understanding of:

- cell metabolism under normal and abnormal conditions
- tissue formation and proliferation
- development of bone, cartilage, teeth, and muscle
- bone growth
- temporomandibular joint
- tooth eruption, - movements and reactions in tooth supporting tissues
- dento-facial orthopaedics
- soft tissue changes related to orthodontics
- mechanisms of root resorption
- biofilms

### **A5. Oral pathology and medicine (20 hrs)**

Knowledge of:

the most common oral pathologic conditions and their impact on the orthodontic treatment:

- oral cancer and pre-cancer
- oral manifestations in immune-compromised patients
- oral manifestations of viral diseases (in children)
- oral ulceration
- oral mycoses
- burning mouth syndrome
- periodontal manifestations of systemic diseases
- salivary gland diseases
- facial trauma
- head and neck tumours

## **A6. Pharmacology (10 hrs)**

Knowledge of:

pharmacological agents with relevance to orthodontic treatment:

- antibiotics
- prostaglandin inhibitors
- non-steroidal anti-inflammatory drugs (NSAIDs)
- calcium regulators (parathyroid hormone, thyroid hormones, estrogens, bisphosphonates)
- anti-epileptics
- immunosuppressive agents
- growth hormone substitutes
- psychiatric drugs and tranquillizers
- agents affecting salivation

## **A7. ENT and phonetics (20 hrs)**

Knowledge of:

basic principles of normal function and ENT-pathophysiology related to orthodontics and/or craniofacial growth:

- of the nose and para-nasal sinuses
- of the pharynx, epipharynx, and larynx
- otitis externa, otitis media, and otitis interna
- normal and compromised nasal breathing
- sleep disorders and particularly Obstructive Sleep Apnoea and snoring
- diagnostic tools for sleep disorders and how to interpret the results
- normal and abnormal speech and its relation to craniofacial aberrations
- velo-pharyngeal function, obturators

## **A8. Syndromes in which the head is involved (20 hrs)**

Knowledge of:

most common types of oro-facial clefts, craniofacial anomalies, and syndromes in which the head is involved with respect to:

- aetiology
- classification
- effect on craniofacial growth
- psychosocial development

## **A9. Psychology of the child, adolescent and adult (35 hrs)**

Knowledge of:

concepts and principles of developmental psychology essential for the understanding of:

- patient motivation and assessment of co-operation

- psychological aspects of puberty and adolescence
- impact of facial appearance on self-esteem
- psychological aspects of orthognathic surgery
- development of cognition, language and communication, sex-differences

concepts of psychopathology and mental disorders essential for the understanding of their impact on orthodontic treatment:

- mental retardation, slow learning capacity, dyslexia,
- eating disorders, anorexia nervosa, psychiatric disorders, depressions
- ADHD and other behavioural disorders in relation to odontophobia
- autism spectrum disorders
- conduct disorders, oppositional defiant disorders, self-harming behaviour
- suicide attempts
- different methods used in child and adolescent psychiatric treatment

#### **A10. Research methodology and biostatistics (90 hrs)**

Knowledge of:

general principles, theory and practice of research designs and commonly used statistical methods in

- diagnostic studies
- intervention and experimental studies
- etiological research
- epidemiologic surveys
- systematic reviews and meta-analysis

Knowledge of:

- philosophy of science
- ethical and legal aspects in research involving animals and human subjects
- scientific integrity
- scientific misconduct
- evidence based decision-making

## **B. Basic orthodontic subjects (325 hrs)**

### **B1. Development of the dentition (normal and abnormal) (70 hrs)**

Knowledge of:

- normal and abnormal development of the dentition from birth to adulthood
- abnormalities in number, size, form and position of the teeth
- genetic and environment factors relevant to the development of the dentition
- orthodontic consequences of abnormalities of the dentition
- interceptive orthodontic measures to improve the ultimate situation

## **B2. Facial growth (normal and abnormal) (50 hrs)**

Knowledge of:

- growth sites in the craniofacial skeleton
- postnatal growth changes in the craniofacial region, including soft tissues
- variation in the function of components within the craniofacial region relevant to facial growth
- individual variation in facial configuration
- influence of genetic and environmental factors on facial growth

## **B3. Physiology and pathophysiology of the stomatognathic system (35 hrs)**

Knowledge of:

- the process of mastication and swallowing
- normal and abnormal functional dental occlusion
- normal and abnormal behaviour of soft tissue structures
- normal and abnormal functioning of the temporomandibular joint
- diagnostic procedures regarding the temporomandibular joint

## **B4. Aspects of tooth movements and dento-facial orthopaedics (35 hrs)**

Knowledge of:

- the process of tooth eruption and spontaneous tooth movement
- biological response on different types of force application
- influence of force systems and force magnitude
- post-treatment changes

## **B5. Oral and maxillofacial radiology and other imaging techniques (30 hrs)**

Knowledge of:

- abnormalities and pathological conditions that can be diagnosed on radiographs
- health and safety guidelines with respect to oral and maxillofacial radiology
- digital oral and maxillofacial radiographic and other imaging techniques
- 3D imaging (CT, CBCT, MR, stereo photogrammetry) and their indications

## **B6. Cephalometric radiography (45 hrs)**

Knowledge of:

- the radiographic anatomy of the head
- cephalometric diagnostic analyses
- limitations of cephalograms and their analyses

## **B7. Orthodontic materials (25 hrs)**

Knowledge of:

- properties and composition of orthodontic materials

## **B8. Orthodontic biomechanics (35 hrs)**

Knowledge of:

- basic principles of statics and mechanics of materials
- force systems produced by different orthodontic appliances
- force systems produced by dento-facial orthopaedic devices

## **C. General orthodontic subjects (340 hrs)**

### **C1. Aetiology and epidemiology of malocclusions (20 hrs)**

Knowledge of:

- genetic and environmental factors that influence postnatal development of the dentition and facial growth
- unfavourable influence of environmental factors and their interception
- prevalence of malocclusions and ethnic variation

### **C2. Need and demand for orthodontic treatment (20 hrs)**

Knowledge of:

- validity of indices in estimating need for treatment
- models to determine the demand for treatment
- influence of society on demand for treatment
- aspects involved in subjective need for treatment
- role played by orthodontists in demand for treatment
- factors involved in estimating objective need

### **C3. Diagnostic procedures (15 hrs)**

Knowledge of:

- basic principles of patient history and clinical examination
- prerequisites for high quality diagnostic records (impressions of the dentition, extra-oral and intra-oral photographs, radiographic images necessary for orthodontic purposes).

#### **C4. Orthodontic diagnostic assessment, treatment objectives, and treatment planning (60 hrs)**

Knowledge of:

- basic principles of orthodontic diagnostic assessment, treatment objectives and systematic treatment planning

#### **C5. Growth and treatment analysis (45 hrs)**

Knowledge of:

- indices to measure occlusal and aesthetic outcome of orthodontic treatment
- growth analyses based on serial radiographic images
- limitations of analyses of growth and treatment changes (including computerized prediction)

#### **C6. Long-term effect of orthodontic treatment (30 hrs)**

Knowledge of:

- the long-term effect of orthodontic treatment in individual patients, also in relation to aging effects of the face and dentition

#### **C7. Iatrogenic effects of orthodontic treatment (30 hrs)**

Knowledge of:

- the influence of orthodontic treatment on temporomandibular joints
- the development of white spots, pulp necrosis, root resorption, and periodontal disease during orthodontic treatment
- caries risk evaluation and preventive measures during orthodontic treatment
- pain and discomfort related to orthodontic treatment
- the possible influence of treatment on dento-facial appearance and aesthetics

#### **C8. Orthodontic literature (120 hrs)**

Knowledge of:

- methods to evaluate the methodological quality of scientific publications

### **D. Orthodontic techniques (195 hrs)**

A level of competency is required for the topics D1-D8. The requirements are described in detail in Chapter 7

#### **D1. Removable appliances (30 hrs)**

- D2. Functional appliances (20 hrs)**
- D3. Extra-oral appliances (20 hrs)**
- D4. Partial fixed appliances (20 hrs)**
- D5. Fixed labial and lingual appliances (60 hrs)**
- D6. Retention appliances (15 hrs)**
- D7. Skeletal anchorage devices, TADs (20 hrs)**
- D8. Oral devices for OSA treatment (10 hrs)**

## **E. Interdisciplinary treatment procedures (125 hrs)**

### **E1. Adult orthodontics (15 hrs)**

Knowledge of:

- indications and specific aspects of orthodontic treatment of adults

### **E2. Treatment of patients with orofacial clefts and craniofacial anomalies (20 hrs)**

Knowledge of:

- interdisciplinary approaches in the treatment
- indication, timing, and application of various components of interdisciplinary treatment
- specific aspects of orthodontic treatment in cleft lip and palate patients

### **E3. Orthodontic-surgical treatment (20 hrs)**

Knowledge of:

- minor surgical procedures in relation to orthodontic treatment
- indication and application of different types of orthognathic procedures
- **2D and/or 3D** treatment planning and cast surgery

### **E4. Orthodontic-periodontal treatment (20 hrs)**

Knowledge of:

- the effect of orthodontic treatment on the periodontium
- the specific aspects of orthodontic treatment in periodontally compromised dentitions

## **E5. Orthodontic-restorative-prosthetic treatment (10 hrs)**

Knowledge of:

- principles of combined orthodontic-restorative-prosthetic treatment
- orthodontic implications of implants

## **E6. Craniomandibular disorders (40 hrs)**

Knowledge of:

- aetiology of craniomandibular disorders
- general measures to improve craniomandibular disorders
- various therapeutic procedures

## **F. Management of health and safety (25 hrs)**

### **F1. Management of oral health (10 hrs)**

Knowledge of:

- procedures to detect a high risk of developing periodontal problems, enamel decalcification, and dental caries in orthodontic patients
- procedures to detect a high risk of developing periodontal problems in orthodontic patients

A major part of this subject is incorporated in C7 (iatrogenic aspects of orthodontic treatment).

### **F2. Health and safety conditions in an orthodontic practice (10 hrs)**

Knowledge of:

- guidelines and recommendations for preventing and controlling infectious diseases in orthodontic settings and comply with them
- guidelines and recommendations for managing personnel health and safety concerns related to infection control in an orthodontic practice

### **F3. Multicultural health and health care behaviour (5 hrs)**

Knowledge of:

- cultural differences in patient expectations
- intercultural communication skills in a patient – care provider relationship

## **G. Practice management, administration, and ethics (45 hrs)**

### **G1. Office management (15 hrs)**

Knowledge of:

- design of an orthodontic practice
- equipment and instruments needed in an orthodontic practice
- recruitment and selection of auxiliary personnel
- training and quality control of auxiliary personnel
- financing and administration of an orthodontic practice
- public relationships
- quality management certification

### **G2. Communication (10 hrs)**

Knowledge of:

- principles of effective communication with patients, parents, staff, and third parties

### **G3. Ergonomy (5 hrs)**

Knowledge of:

- principles of ergonomic positioning of patient, orthodontist, chair-side assistant, instruments

### **G4. Legislation (10 hrs)**

Knowledge of:

- laws and regulations that apply to an orthodontic practise
- responsibilities and services vulnerable to malpractice law suits
- different insurance coverages required
- procedures to follow when a law suit arises

### **G5. Professional ethics (5 hrs)**

Knowledge of:

- behaviour and conduct expected of an orthodontist as health care provider
- ethical standards that apply to relationships with personal, patients, and colleagues

## H. Extramural educational activities

It is highly recommended to:

- participate in EOS Distinguished Teacher's Lectures
- participate in meetings and congresses arranged by national and international orthodontic societies, especially the yearly congress of European Orthodontic Society, participation at least once during residency is highly recommended

## 7. OBLIGATORY COMPETENCY LEVELS TO BE REACHED AT THE END OF POSTGRADUATE EDUCATION IN ORTHODONTICS

In addition to the theoretical knowledge levels indicated in Chapter 6 the students are required to achieve a level of competency in the below mentioned subjects. The term 'competent to' means that students should have 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.

The minimal number of hours required to achieve the competency level are included in the number of hours listed in chapter 6.

The minimal number of hours necessary for the average student to devote to the subject in order to achieve the required level of comprehension (= a sound knowledge and understanding of all subjects) are indicated in chapter 6. The competency level "competent to" should be achieved throughout the education, the hours are not specified.

### A. General biological and medical subjects

#### A10. Research methodology and biostatistics

Competent to:

- apply the principles of evidence based medicine
- rate the quality of evidence and validity of conclusions
- use electronic databases efficiently to answer a clinical or research question
- understand and evaluate statistical methods and interpretation of findings in current literature
- perform an analytical review of biomedical research and clinical research papers
- write a protocol for a research project
- apply data processing procedures
- interpret own research findings
- present research findings in oral and written form.

## **B. Basic orthodontic subjects**

### **B1. Development of the dentition (normal and abnormal)**

Competent to recognize and identify a given situation of the dentition in terms of:

- normality or abnormality
- developmental stage attained
- future development
- possibilities for interceptive measures to improve the ultimate situation

Competent to

- master early orthodontic treatment (orthodontic interception)

### **B2. Facial growth (normal and abnormal)**

Competent to recognize and identify:

- postnatal growth changes in the craniofacial region, including soft tissues
- variation in the function of components within the craniofacial region relevant to facial growth
- individual variation in facial configuration
- influence of genetic and environmental factors on facial growth

### **B4. Aspects of tooth movements and dento-facial orthopaedics**

Competent to recognize and identify:

- the process of tooth eruption and spontaneous tooth movement
- biological response on different types of force application
- influence of force systems and force magnitude
- post-treatment changes

### **B5. Oral and maxillofacial radiology and other imaging techniques**

Competent to:

- recognize and identify abnormalities and pathological conditions that can be diagnosed on radiographs
- apply the ALARA (As Low As Reasonably Achievable) principles for radiation protection
- judge and improve the quality of radiographs for orthodontic purposes
- apply health and safety guidelines with respect to oral and maxillofacial radiology

### **B6. Cephalometric radiography**

Competent to:

- describe the radiographic anatomy of the head

- identify relevant anatomical structures on cephalograms
- make digital or manual tracings of cephalograms in *norma lateralis* and *norma frontalis*
- perform cephalometric diagnostic analyses

## **B7. Orthodontic materials**

Competent to:

- select appropriate materials for orthodontic procedures
- properly handle and apply orthodontic materials

## **B8. Orthodontic biomechanics**

Competent to:

- apply principles of mechanics to clinical problems
- solve problems related to force resultants and force equivalents
- estimate force systems produced by different orthodontic appliances
- estimate force systems produced by dento-facial orthopaedic devices

# **C. General orthodontic subjects**

## **C1. Aetiology and epidemiology of malocclusions**

Competent to:

- assess orthodontic treatment need and perform screening procedures

## **C3. Diagnostic procedures**

Competent to:

- obtain a relevant patient history
- perform a thorough clinical examination
- determine habitual occlusion, evaluate functional occlusion, and different jaw relationships of patients
- evaluate influence of functional components of soft tissues on dento-facial morphology
- take high quality impressions of the dentition
- take high quality extra-oral and intra-oral photographs
- take high quality radiograph images necessary for orthodontic purposes.

#### **C4. Orthodontic diagnostic assessment, treatment objectives, and treatment planning**

Competent to:

- arrive at a tentative diagnosis and classification on the basis of a cursory examination of a patient
- provide advice after a cursory examination concerning feasibility of treatment, need for more detailed analysis and treatment planning, or consultation of other specialists for further evaluation and treatment
- arrive at a proper diagnosis on the basis of anamnestic data, patient examination, dental casts, photographs, radiographic images, and other relevant data
- predict the likely effect on growth and development of face and dentition if no therapy is implemented
- define objectives of treatment with due consideration of alternatives
- define a treatment plan for various types of orthodontic and dento-facial abnormalities, including strategy of treatment and retention, therapeutic measures, timing and sequence of their application, prognosis, and estimated treatment and retention time
- make a cost/benefit assessment for different treatment and retention procedures
- assess scope, limitations and stability of orthodontic treatment
- communicate treatment plan to patients and their parents

#### **C5. Growth and treatment analysis**

Competent to:

- use indices to measure occlusal and aesthetic outcome of orthodontic treatment
- perform growth analyses based on serial radiographic images
- detect and describe treatment changes by analysis of serial tracings
- present limitations of analyses of growth and treatment changes
- present potential and limitations of various methods of longitudinal cephalometric assessment
- understand the validity and limitation of growth prediction including computerized prediction

#### **C6. Long-term effect of orthodontic treatment**

Competent to:

- describe the probable long-term effect of orthodontic treatment in individual patients, also in relation to aging effects of the face and dentition
- inform the patients about post-treatment changes associated with different anomalies and treatment procedures

## **C7. Iatrogenic effects of orthodontic treatment**

Competent to:

- evaluate the influence of treatment on temporomandibular joints
- identify factors involved in development of white spots, pulp necrosis, root resorption, and periodontal disease during orthodontic treatment
- prevent or handle intra- and extra-oral lesions due to orthodontic appliances
- make caries risk evaluation and apply preventive measures during orthodontic treatment
- deal with pain and discomfort related to orthodontic treatment
- describe the possible influence of treatment on dento-facial appearance and aesthetics

## **C8. Orthodontic literature**

Competent to:

- detect essentials in current literature (taught in specific literature review sessions)
- evaluate the methodological quality of scientific publications
- develop and present a critical appraised topic (CAT)

## **D. Orthodontic techniques**

### **D1. Removable appliances**

Competent to:

- describe the use of removable appliances
- identify indications and contra-indications and design the appliance
- implement potential and limitations of removable appliances in the treatment
- describe and evaluate the construction
- perform a repair

### **D2. Functional appliances**

Competent to:

- describe the use of removable and fixed functional appliances
- identify indications and contra-indications and make the design
- implement potential and limitations of functional appliances in the treatment
- describe and evaluate the construction
- perform a repair

### **D3. Extra-oral appliances**

Competent to:

- describe the use of various types of headgears, facial masks, chin cups, and combined extra-oral/functional appliances
- identify indications and contra-indications and make the design
- implement potential and limitations of extra-oral appliances in the treatment
- identify safety aspects of extra oral appliances

A major part of the section is covered in B4 (Aspects of tooth movements and dentofacial orthopaedics).

### **D4. Partial fixed appliances**

Competent to:

- describe the use of partial fixed and semi-removable appliances
- identify indications and contra-indications and make the design
- implement potential and limitations of different approaches in partial fixed appliance therapy.

### **D5. Fixed labial and lingual appliances**

Competent to:

- describe the use of labial and lingual fixed appliances
- identify indications and contra-indications
- describe different concepts and treatment approaches in design and biomechanical principles
- describe the potential and limitations of different appliance systems
- master at least one system of full fixed appliance

### **D6. Retention appliances**

Competent to:

- describe the use of retention appliances
- identify indications and contra-indications and design the appliance
- describe the most appropriate duration of retention
- implement potential and limitations of retention appliances in the treatment
- describe and evaluate the construction
- perform a repair

## **D7. Skeletal anchorage devices, TADs**

Competent to:

- recognise when TADs or skeletal anchorage devices should be considered as part of the management of a malocclusion

## **D8. Oral devices for OSA treatment**

- The achievement of a competency level is encouraged, but is not obligatory.

# **E. Interdisciplinary treatment procedures**

## **E1. Adult orthodontics**

Competent to:

- describe indications and specific aspects of orthodontic treatment of adults
- collaborate in the diagnosis and treatment planning of adult patients in collaboration with general dental practitioners

## **E2. Treatment of patients with orofacial clefts and craniofacial anomalies**

- The achievement of a competency level is encouraged, but is not obligatory.

## **E3. Orthodontic-surgical treatment**

Competent to:

- describe specific aspects of orthodontic treatment in patients requiring orthognathic surgery
- collaborate in the diagnosis and treatment planning of cases that require minor surgical procedures and orthognathic cases

## **E4. Orthodontic-periodontal treatment**

Competent to:

- describe the contribution of orthodontic treatment to the periodontal condition of patients
- describe specific aspects of orthodontic treatment in periodontally compromised dentitions
- evaluate indications and contra-indications of orthodontic treatment in periodontally compromised dentitions
- collaborate in the diagnosis and treatment planning of periodontally compromised dentitions

## **E5. Orthodontic-restorative-prosthetic treatment**

Competent to:

- identify indication and application of combined orthodontic-restorative-prosthetic treatment
- describe orthodontic implications of implants
- describe specific aspects of orthodontic treatment in combined orthodontic-restorative-prosthetic patient care
- collaborate in the diagnosis and treatment planning of orthodontic-restorative-prosthetic treatment either in combination with conventional prosthetic work or with the use of implants

## **E6. Craniomandibular disorders**

Competent to:

- describe indications and contra-indications for orthodontic treatment in patients with craniomandibular disorders
- identify possible implications of orthodontic treatment in the presence of a craniomandibular disorder
- collaborate in the diagnosis and treatment planning of patients with a craniomandibular disorder by a team of specialists

## **F. Management of health and safety**

### **F1. Management of oral health**

Competent to:

- instruct patients to maintain optimal oral hygiene as a preventive measure for gingival and dental lesions

### **F2. Health and safety conditions in an orthodontic practice**

Competent to:

- implement guidelines and recommendations for preventing and controlling infectious diseases in orthodontic settings and comply with them
- implement guidelines and recommendations for managing personnel health and safety concerns related to infection control in an orthodontic practice and comply with them
- evaluate systematically the practice infection-control program to ensure procedures are followed accurately
- control exposure to substances hazardous to health for patients and personnel

## **G. Practice management, administration, and ethics**

### **G1. Office management**

Competent to:

- implement a quality management system in an orthodontic practice

### **G2. Communication**

Competent to:

- communicate effectively with patients, parents, staff, and third parties
- utilize effective communication tools and different presentation modes

### **G3. Ergonomics**

Competent to:

- position patient, orthodontist, chair-side assistant, instruments in an ergonomic optimal manner
- to perform specific clinical procedures in the most efficient sequence