



# A common European curriculum for dental hygiene

## 1 | INTRODUCTION

The European Dental Hygienists Federation (EDHF) is a not-for-profit organisation that, to date, represents 24 national Dental Hygiene Associations across the European Union, European Economic Area and the World Health Organisation (WHO) European Region (Table 1). Founded in 1999, the EDHF now represents associations with an estimated membership of 38 000 dental hygienists,<sup>1</sup> and the aims of EDHF have thus developed to include:

- Improving access to high quality preventive oral health care.
- Providing a platform from which to exchange information and promote dialogue between member associations.
- Supporting professional development and continued professional education of dental hygienists.
- Collaborating with oral health and wider health organisations for the benefit of the profession and for the health of patients.

The EDHF meets annually at its pan-European conference, and various internal taskforces exist longitudinally relating to enhancing oral health literacy, and harmonising the skills and training of dental hygienists across Europe. The latter, in relation to the training of dental hygienists, forms the basis for this series of curriculum papers. This introductory paper aims to describe the current situation with respect to the training of dental hygienists across Europe, and to outline the process by which EDHF has established a new Common European Curriculum (CEC). It is expected that dental hygiene educators will use the CEC as a starting template when authoring or updating curricula, taking into account their own local levels of regulatory practice.

## 2 | WHAT IS DENTAL HYGIENE AND HOW IS IT REGULATED?

It is recognised that there is considerable variation regarding what constitutes the practise of dental hygiene across EDHF member states.<sup>2</sup> This is compounded by the fact that the International Standard Classification of Occupations (ISCO) does not classify dental hygienists as a unique group. Instead, they are included

within sub-group “3251–Dental assistants and therapists”. As such, it is difficult to determine from a regulatory perspective, exactly *what* constitutes the role of a dental hygienist. The regulation lists activities that include “preparing cavities”, “placing fillings” and “fitting dental prostheses”,<sup>3</sup> which many member states would consider outside the standard expected scope of practice. *Core* activities for dental hygienists across member states are largely confined to:

1. educational and promotional activities relating to preventive oral health.
2. examination, diagnosis and provision of preventive dental care.

Table 2 outlines some of the *other* procedures that dental hygienists are permitted to undertake in some countries, according to the “Mutual evaluation of regulated professions” project.<sup>2</sup> On occasion, these extra regulated activities are only permitted on condition that the hygienist can demonstrate suitable training, competence and indemnity.

### 2.1 | Regulation

Aside from the disparate nature of permitted activities, the regulation and autonomy of dental hygiene are also extremely variable. According to the European Commission, 8 member states reported that they do not regulate access, or set mandatory qualification requirements.<sup>2</sup> Ten member states reported specifying that hygienists may carry out activities under *direct supervision or prescriptions* of dentists. In all Nordic countries, Switzerland and the UK, hygienists may carry out certain treatments and activities either directly (independently) or under the prescription of a dentist. It is worth noting that not all European countries were represented as part of the “Mutual evaluation of regulated professions” exercise.

### 2.2 | Qualification

In terms of qualification requirements, the majority of member states (12) require completion of programmes at post-secondary level and are of between 2 and 4 years’ duration (normally a minimum of 180

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**TABLE 1** National dental hygiene associations represented by EDHF

Austria
Belgium
Czechia
Denmark
Estonia
Finland
Germany
Ireland
Israel
Italy
Latvia
Lithuania
Malta
Netherlands
Norway
Poland
Portugal
Russia
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom

European Credit Transfer and Accumulation credits). On occasions, these must then be followed by mandatory vocational placements, portfolios of experience and state-run examinations.<sup>2</sup>

### 2.3 | Working environments

The majority of dental hygienists work as part of a team, within a general dental practice environment.<sup>2</sup> However, there are also significant numbers of hygienists who work independently, or in smaller, more specialist clinical teams—both within private and public settings. These may include:

1. Working independently (possible in 16 member states).
2. Oral Healthcare Teams.
3. Specialist Periodontology clinics.
4. Specialist Oncology or other multidisciplinary teams in hospitals or secondary care environments.
5. Residential care or homes for the elderly or medically compromised.
6. Other public health services.

The disparate nature of practice environments means that the dental hygienist has an important and necessary role in

inter-professional collaboration. At present, this element of training is likely under-represented. It was the aim of the Common Educational Framework (CEF) taskforce to ensure that this aspect formed a critical part of the new curriculum documentation.

### 2.4 | Statement of the problem

As outlined thus far, the definition, practise, regulation and training of dental hygienists is inconsistent across Europe. The European Commission data from 2016 is considered somewhat incomplete, and as a result, the EDHF commissioned pan-European surveys in 2014 and 2016 in order to better understand the practise of Dental Hygiene across Europe. This work resulted in the publication of a “Professional Profile” for Dental Hygienists across Europe.<sup>4</sup> Whilst it is not within the scope of this series of papers to engage with the *regulation* of dental hygiene, it is a concern that there is, as a result of the discrepant regulation, poor harmonisation of training. This is most apparent and problematic where Dental Hygiene training is provided vocationally; in this instance, the higher vocational curriculum is aligned to the regulatory scope of practice.

As described in the “Graduating European Dentist” documents (GED),<sup>5</sup> Health 2020, (the European policy for health and well-being, adopted by EU member states in 2012), aims to support action across governments and society to “significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality”.<sup>6</sup> The policy stresses the need to rethink the education and training of health professionals in order to improve the alignment between education and health systems priorities. A framework for action on inter-professional education has also been published,<sup>7</sup> in order that educators can better prepare graduating students as they enter the workplace as a member of the collaborative practice team. Taking the above needs into account, “A Common European Curriculum for Dental Hygiene” describes a contemporaneous curriculum for use by dental educators and other stakeholders. It aims to provide a basis from which institutions *and* regulators can plan, benchmark and quality assure the training that they are providing for dental hygienists.

### 2.5 | Process

EDHF established a Common Education Framework (CEF) project team, CEF taskforce and two reference groups, in 2017. The project team comprised the President and Vice President of EDHF (Yvonne Nyblom and Ellen Bol-van den Hil, respectively) and a project manager, Corrie Jongbloed. Members of the other involved groups are represented in Tables 2 and 3. An overview of the CEF project and the relationship between the working groups is outlined in Figure 1. The project team was responsible for delivery of the project and for overseeing the activities of the CEF taskforce. The CEF taskforce comprised representative members from across Europe, and two

**TABLE 2** Additional dental hygiene procedures that vary from country to country<sup>2</sup>

Procedure	Number of countries permitting the activity
Placement of topical treatment and fissure sealants	10
Administering local anaesthesia	9
Working with ionising radiation and taking photographs	8
Adjusting existing restorations	7
Care of implants and peri-implant tissues	5
Tooth whitening upon prescription	5
Administration of medicinal products	4
Removal of sutures after the wound has been checked by a dentist	4
Placement and removal of dental dam	3
Taking impressions	3
Prescribing radiographs	3
Use of antimicrobial therapy to manage plaque related diseases	3
Application and removal of orthodontic appliances	2
Emergency refitting of crowns	2
Treatment of caries in primary teeth	2
Treatment of periodontal disease prescribed by a dentist/ root planing	2
Placement and removal of retraction threads	1
Desensitising agent application to dentine	1
Placement of temporary dressings and re-cementing crowns with temporary cement	1
Oral cancer screening	1
Prescriptions (restricted)	1
Inhalational sedation	1
Subcutaneous and intramuscular injections	1

ADEE representatives. Working curriculum documents were then sent to two reference groups, who included further subject matter experts based at institutions and organisations across Europe.

Between May and July 2018, ADEE mediated an open pan-European consultation on the curriculum documents. The following parties were invited to participate in the consultation:

- EDHF-CEF Reference Groups.
- EDHF Member Associations.
- Institutions.
- Regulatory bodies.
- Professional organisations.
- Corporate Partners.
- Individuals.

Over 300 distinct comments and/or suggestions were received, including comprehensive responses from a number of ADEE member-institutions and interested individuals. Concurrently, the documents were considered within workshops at both the European Federation of Periodontology annual conference (June 2018) and the ADEE annual conference (August 2018). Consultation outcomes, comments and suggestions were reviewed by the taskforce, and changes were made where it was felt necessary. A final Common European Curriculum for Dental Hygiene was unanimously adopted by the EDHF General Assembly on 4 October 2018 (Jerusalem).

## 2.6 | Educational strategy

In keeping with the approach adopted by the ADEE “Graduating European Dentist” taskforce, a learning-outcomes approach was used when formulating the dental hygiene curriculum. For the purposes of consistency and clarity, the terms “Competences” and “Learning Outcomes” are described below:

### 2.6.1 | Competences

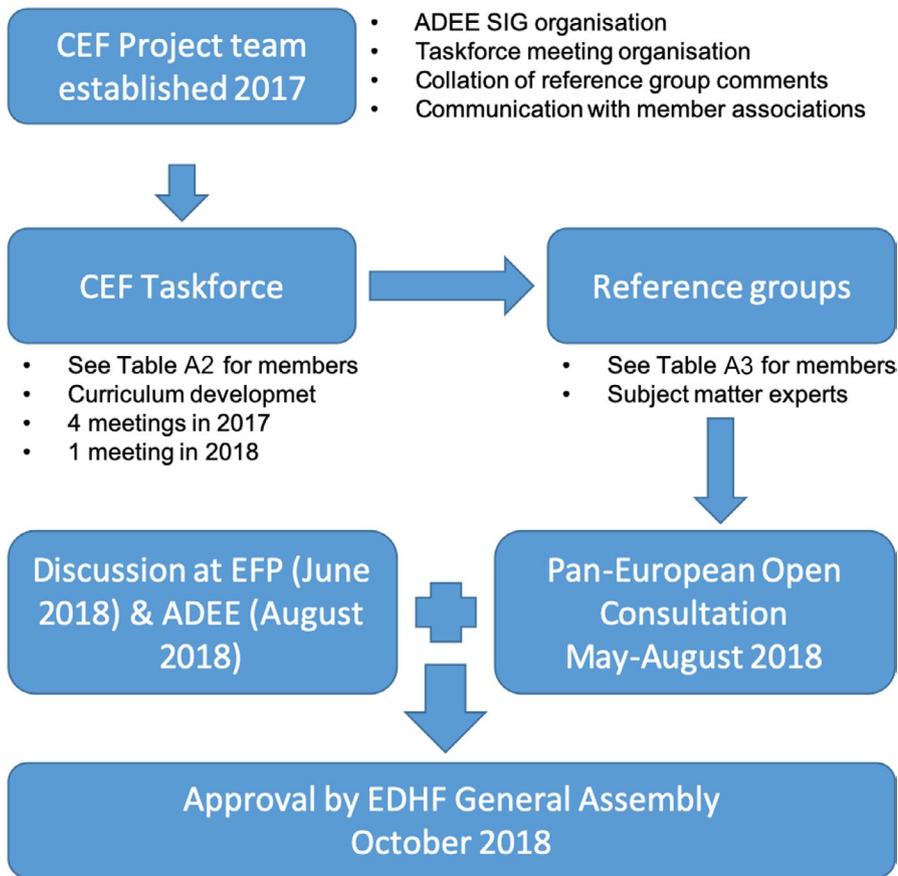
*Professional behaviours and skills required by a graduating dental care professional in order to respond to the full range of circumstances encountered in general professional practice<sup>8</sup>*

### 2.6.2 | Learning outcomes

*A series of individual and objective outcomes, with shared ownership between students and staff, designed to facilitate the learning and assessment process.<sup>5</sup>*

It is understood that institutions and regulators may wish to see a more competence-based definition of a dental hygienist—however, the taskforce is clear that a learning-outcomes based approach is a sound basis through which to establish a curriculum—and this can then be adopted and modified alongside other stakeholders, as required. The role of ADEEs representatives on the taskforce was to assist the learning outcome-based approach and to provide pedagogic support in constructing a new curriculum.

The curriculum has been written in such a way that the Domains and their defined “Major Competences” provide a basis from which qualifying dental hygienists can build confidence and competence, and accept the importance of continuing professional development throughout their career. EDHF would like to stress that this is very much an aspirational curriculum, and *not* a regulatory document. It is to assist educators with putting together a comprehensive curriculum that can be suitably taught and assessed. EDHF is happy to see the curriculum framework



**FIGURE 1** The CEF process, from its inception in 2017 through to approval

altered and augmented to suit individual institutional needs and requirements.

The Framework in Appendix A, mirrors the GED documentation,<sup>5</sup> and comprises four Domains covering topics referred to as “Major Competences”. These are accompanied by a series of associated “Learning Outcomes”.

## 2.7 | Quality assuring the delivery of dental hygiene education

Education and training must not take place in environments where fundamental standards of quality and safety are not adhered to.<sup>9</sup> Quality assurance processes are therefore fundamentally important to the delivery of effective education and patient-centred care. As such, we refer the reader to the quality assurance aspects discussed within the GED documentation.<sup>5</sup> These include:

- Staff appraisal, training and development.
- Policies and procedures.
- Disciplinary processes including fitness to practice and fitness to study.
- Examiner feedback, calibration and training.
- Feedback (from staff, students and patients).
- A supportive infrastructure.

## 2.8 | Programme length, level and ECTS

Whilst the curriculum provides no guidance on programme length or hours of study, the taskforce felt that Bachelor-level programmes (representing EQF level 6 or above) should have a length equivalence of 3 years (4500 hours) or a minimum of 180 ECTS credits (at 25 hours per credit). Ultimately, the way in which the curriculum is structured and implemented is for individual institutions (in conjunction with their regulators within the European Higher Education Area) to decide.

## 2.9 | Intended impact

In the absence of any existing pan-European learning-outcomes-based curricula for dental hygiene, it is hoped that the new CEC will help to inform educators and institutions about how to structure, adapt and improve their programmes. Given the novelty of such a curriculum, it is anticipated that the new documents are shared with all stakeholders of dental hygiene education, including the students themselves. Only then, will students be able to take true ownership of their learning and contribute to meaningful and necessary curriculum development.

In common with the GED framework, it is expected that the CEC for dental hygiene will:

- Refine and harmonise dental hygiene curricula across Europe, whilst respecting regional, socio-economic and cultural variation.

- Reinforce the importance of an outcome-based curriculum, which is informed by a robust and effective system of student and staff feedback.
- Provide a clear curriculum that is accessible to all stakeholders of dental hygiene education, including students themselves.
- Enhance patient safety through a high standard of clinical and professional care on a European and global level.
- Act as an *educational* basis from which new European Directives can be formed—in conjunction with relevant European political organisations and in harmony with individual member state requirements.

## 2.10 | Summary

The CEC for Dental Hygiene now provides a standardised curriculum approach that reflects best academic practice for European dental hygiene education. EDHF is happy to see this document disseminated widely and the outcome will be future derivations which take account of local cultural and patient needs in different areas of the world.

The CEC does not interfere with national regulations on professionals since every country has their own laws, regulation and supervising bodies. Instead, it defines a standard framework for dental hygienist education, giving universities and other providers of dental hygiene training a benchmark from which to tailor their programmes in line with local demands, regulations and aspirations.

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