

Review

# European Quality Markers in Oral and Maxillofacial Surgery Specialty Training: Defining Standards

## OMFS European Trainee Forum of UEMS<sup>1</sup>

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### Abstract

According to the European Union (EU) Directive 2005/36, the medical specialty of oral and maxillofacial surgery (OMFS) exists with two possible formats: dual degree OMFS called Dental, Oral and Maxillofacial Surgery (DOMFS) - basic medical and basic dental training and single medical degree Maxillofacial Surgery (MFS). Within the EU and across all of Europe, differences in the nature and quality of OMFS training coexist. By implementing the highest possible standards of training, patient care can be improved. To establish quality metrics for an ideal OMFS training programme, the European OMFS Trainee Forum of the Union Européenne des Médecins Spécialistes (UEMS) conducted a Delphi consensus protocol from November 2023 to January 2024. Facilitated by the OMFS Section of UEMS, 57 trainees from 32 countries participated. The process involved the definition of three quality levels using the red, amber, and green (RAG) rating system. Following the Delphi process, 46 domains were identified, including features within training programmes/rotations, teaching and education programmes, training placements, recording of training progression and activity, and external assessment of training programmes. The results were aligned with the UEMS OMFS European Training Requirement (ETR). With the introduction of a RAG rating, trainees and trainers can review their training programmes with the aim of improving them by moving domains from Red to Green. Raising the standard of training will benefit our patients. This initiative could mark a significant step towards the harmonisation of OMFS training, improving quality and ensuring consistent, high-level care throughout Europe.

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**Keywords:** Surgical training; Quality standards; Delphi consensus; European training requirements

### Introduction

In 2021 the “Union Européenne des Médecins Spécialistes” (UEMS) approved an Oral and Maxillofacial Surgery (OMFS) European Training Requirement (ETR), a pan-European syllabus and curriculum for training in the medical specialties of OMFS. In this paper, we outline quality markers for OMFS specialty training with the aim of improving standards across Europe. UEMS members include all members of the European Union, the European Economic Area, plus Switzerland and the UK.

Changing surgical training, even with changes which would improve training, is challenging.<sup>1,2</sup> Improving surgical training always involves change.<sup>3,4</sup> Defining standards

within surgical training is complex.<sup>5,6</sup> OMFS is a specialty with a long history and it encompasses a wide range of treatments and procedures. Across Europe training remains heterogeneous ([https://omfsuems.eu/omfs\\_training/](https://omfsuems.eu/omfs_training/)) and the specialty specific training period ranges from four to seven years.<sup>7</sup> Dual degree DOMFS is the most common in UEMS nations with 21 including this form of OMFS. Eight nations have single medical degree MFS, and 3 UEMS nations do not yet have a medical OMFS specialty. Outside UEMS, nations vary in where they are in their path towards medical OMFS. The European OMFS Trainee Forum welcomes trainees from all European nations. We hope the standards we define in this paper will help all trainees and trainers who practice in our field.<sup>7</sup>

\* Corresponding authors at: Department of Oral and Maxillofacial Surgery University Hospital RWTH Aachen Pauwelsstraße 30, 52074 Aachen, Germany (Behrus Puladi) and Department of Oral and Maxillofacial Surgery Ospedale dell' Angelo Venice-Mestre ULSS3 Veneto, Via Paccagnella 11, 30174 Chirignago-Zelarino (Venice), Italy (Francesco Lemma).

<sup>1</sup> This Collaboration author group present in the end of the appendix section.

The significant differences between UEMS nations present challenges for harmonisation. This diversity can generate barriers, particularly during training making cross-country exchange difficult. Diversity also creates examples of best practice from which all can learn. Both the need for excellent training and the challenge of overcoming differences between countries created the opportunities for this Delphi Review.

Trainees from the Psychiatry Section of the UEMS, the European Federation of Psychiatry Trainees, have created an online resource called ‘Test your own training’ where trainees can register and, by completing the questionnaire, generate a report of how their training compares to the UEMS Psychiatry European Training Requirement (<https://efpt.eu/tyot/>). We hope that this paper will help the creation of a similar resource for OMFS.

## Methods

During the inaugural meeting of the European OMFS Trainee Forum in March 2023 in Brussels, trainees representing UEMS member nations and beyond gathered and shared

experiences. The training programmes shared on the OMFS Section website were discussed ([https://omfsuems.eu/omfs\\_training/](https://omfsuems.eu/omfs_training/)) and best practice was identified from the collected reference documents. The Delphi consensus study template, defining and measuring surgical training,<sup>5</sup> was used to ensure that all key domains were addressed. The Delphi consensus was conducted online using twice monthly Zoom meetings from November 2023 to March 2024. As well as defining the domains to be assessed, trainees were asked to give examples of ‘best practice’ or ‘gold standards’ from their nation and their experience. A red, amber, and green (RAG) rating system was applied for each table where green was best, amber intermediate and red least desirable. Furthermore, feedback was obtained from the OMFS Section and Board of the UEMS and the European Association for Cranio Maxillo Facial Surgery (EACMFS), and incorporated accordingly.

## Results

A total of 57 trainees from 32 nations took part in the survey (Fig. 1). The domains to which RAG ratings were developed

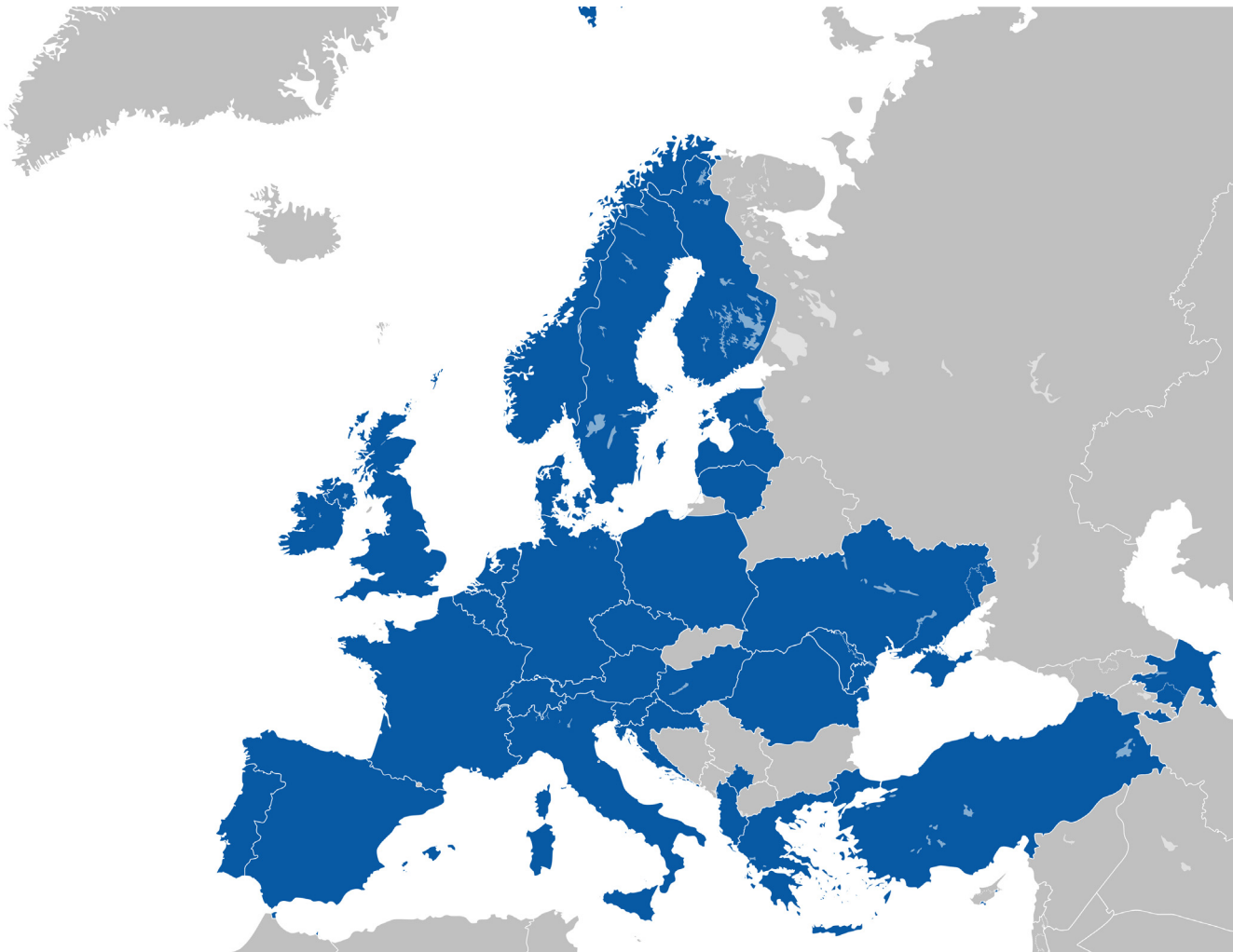


Fig. 1. Nations whose trainees were involved in the development of the RAG criteria for OMFS.

Table 1  
National domains defining OMFS training.

Domain	Descriptor	Green	Amber	Red
Number of training posts	Number of training posts matched to European benchmark of OMFS specialists	>2 per 100,000 specialists	1-2 per 100,000 specialists	1 or fewer per 100,000
Syllabus / knowledge	Teaching programme covering all areas defined by OMFS ETR	National syllabus covers entire OMFS ETR	Covers the majority of ETR with no gaps in core areas	Some gaps in core areas
Surgical experience/competence	Experience defined with indicative numbers of key procedures.	Indicative numbers required to complete training, which includes competencies at level 4.	Indicative numbers but not required to complete training.	No indicative numbers
Certification guidelines	Definition of training end-point with checklist	Externally assessed checklist	Internally assessed checklist	No checklist
Recruitment	Recruitment process into specialty training is open, fair and effective	Multi-domain process with written person specifications and job descriptions	Single-step process with written person specifications and job descriptions	No written person specification or job description
Post-training fellowships	Post-certification fellowship availability to develop sub-specialty interests	Formal post-fellowship programmes	Informal programmes	None
Cost of training	Trainees paying for elements of their own training – e.g. portfolio use or study leave	All training costs are within the programme including all mandatory requirements	Some costs are shared by the trainees. Mandatory training is provided.	No study budget – trainees pay for everything including mandatory parts
Support for less than full-time (LTFT) training	Support for LTFT training	Access to LTFT on request	Limited access to LTFT	LTFT not supported
<b>In dual degree OMFS nations</b>				
Dual degree	Second degree incorporated into specialty training	Second degree incorporated and fully funded	Formal support during second degree but not incorporated	No support
Easy path to training for both dentists and doctors	Pathway for dentists and doctors	A clear, fair route from either first degree should be possible recognising transferable knowledge and skills.	A route is available but does not recognise transferable knowledge and skills	Training pathway is inflexible / inequitable, there is no clear entry point from either medicine-first or dentistry-first.

total 46: 8 for OMFS in general plus 2 for dual-degree OMFS nations (Table 1); 11 specifically for the training programme/rotation and 6 for the teaching/education programmes (Table 2); 9 for training placements and 4 for records of training progression/activity (Table 3); and finally, 6 for the external assessment of the training programmes (Table 4).

## Discussion

To our knowledge, this is the first European attempt to define standards for OMFS specialty training. The domains will be discussed in more detail than in the tables and brief examples of best practice from the perspective of the trainees listed (Table 5).

### *What good should look like in the national domains of OMFS training*

#### *Number of training posts – Workforce planning*

Workforce planning in medicine and surgery is challenging but essential. In Europe there is a range of specialist provision from 0.28/100,000 in Ireland to 3/100,000 in Switzerland.<sup>8</sup> Training positions should be supported by appropriate spe-

cialty provision. The duration of OMFS training makes planning a long-term rather than a medium-term consideration. There is an ageing workforce and to retain older surgeons it is vital to consider the impact of pension regulations.<sup>9</sup> Further to this, less than full-time (LTFT) training is increasingly popular, meaning that in future a larger number of specialists is likely to be required to deliver the same capacity.<sup>10</sup> This approach is essential not only to ensure appropriate patient care, but also to prevent the burden of care for large numbers of patients falling on too few specialists.

#### *Curriculum including syllabus (knowledge)*

A detailed written curriculum defines the knowledge base (syllabus) and skills/behaviour of an OMFS specialist. Providing access to the UEMS OMFS ETR, which covers key areas including the UEMS concise Royal College of Physicians and Surgeons of Canada (CANMED) definitions of a physician, should be part of the induction of all trainees.

#### *Surgical experience – Indicative numbers*

Indicative numbers are not maximum or minimum experiences, but rather a target that most trainees should reach during training. Where these are defined they help to raise the level of experience across the country.<sup>11</sup>

Table 2  
Training programme/rotation.

Domain	Descriptor	Green	Amber	Red
Induction	Induction into specialty training	Formal induction into all aspects of training including being given a copy of the full curriculum	Informal induction. Curriculum available online	No induction
OMFS ETR experience - training opportunities within rotation	Experience defined in the curriculum available to all trainees in the training rotation	All trainees and trainers are sent a copy of the curriculum and an outline of their training	Curriculum is available and trainees told about their training	No curriculum provided and no formal information about training.
Formal teaching programme	Teaching programme For detail see Table 4	Full breadth and depth of syllabus delivered in formal education programme	Teaching programme which covers majority of syllabus	No formal teaching programme
Training rotation	Experience of more than one unit and group of trainers	Training rotates through geographically compact multiple units/trainers with a single employer	Training in single unit with multiple trainers or multiple units with multiple employers	Single unit and few trainers
Early years, middle years and later years training.	Training opportunities appropriate for phase	All training appropriate for phase	Most training appropriate for phase	Some training appropriate for phase
Private practice	Private practice	Programme includes formal experience in private practice	Access to private practice in trainee's own time	No access to private practice
Simulation	Simulation facilities	Simulation embedded within curriculum, trainees empowered to develop simulation training skills and medical education training as appropriate	Limited access to simulation facilities	No access to simulation
Critical appraisal, research and audit	Evidence of skills and knowledge in critical appraisal, outcome measures including journal clubs and audit.  Access to research including higher qualifications.	Universal experience of critical appraisal and audit (outcome measurement and service improvement). Access to formal clinical academic training pathways, dedicated research time possible	Limited access – research only possible out of programme	No access
Management and leadership	Training in leadership and management	Formal element of programme focused on this domain	Informal element	None
Faculty training	All trainees required to maintain training.	All trainers have formal training and maintain training CPD	Some trainers have formal training and maintain training CPD	No trainers have training
<b>Teaching and education programme</b>				
Domain	Descriptor	Green	Amber	Red
Formal teaching	Amount of teaching	2 hours per week on average	1-2 hours per week	Less than 1 hour
Syllabus for teaching	Based on OMFS ETR	Covers full curriculum in a planned way	Some structured teaching	No structure
Protected study time in weekly timetable	Protected study time should be part of the timetable	An average of 2 hours teaching/study time per week	Less than 2 hours but more than 1 hour	Less than 1 hour on average per week
Access to educational material	Library access or online database with access to national and international professional literature.	Free access to educational resources, journal access, textbooks.	Limited access to literature or full access at a cost to the trainee or not up to date	No access / limited access to literature /educational resources
Study time and study leave	Study time, study leave and funding	Study leave and funding support.	Study leave but no funding	No study leave or study time in timetable.
Teaching by trainees	Teaching opportunities and assessment	Formal assessment of trainees teaching	Informal assessment	No teaching opportunities for trainees

#### Certification checklist

When the endpoint of training is clearly defined, checklists can provide a target for trainees and trainers ([JCST Certification Guidelines and Checklists](#)).

#### Cost of training

In some nations all elements of training, including mandated courses, are included in the training programme.<sup>7</sup> Where this

Table 3  
Training placement.

Domain	Descriptor	Green	Amber	Red
Notice of changes of placement or timetable	Trainee given sufficient notice of placement, rotation changes to allow for planning of leave and life	More than 8 weeks' notice and a facility to report and address exceptions.	4-8 weeks' notice	No defined minimum notice period for placement changes
Weekly timetable	Defined timetable with key elements	Timetable for all of training contains all key elements provided at the commencement of the placement	Timetable for most of training includes most key elements	Timetable provided on pro-rata/ad hoc basis.
Early years, middle years and later years training.	Training opportunities appropriate for phase	All training appropriate for phase	Most training appropriate for phase	Some training appropriate for phase
Out-of-hours experience and European Working Time Directive (EWTD)	Compatible with EWTD Has direct supervision when needed.	Fully compatible with EWTD	Mostly compatible with EWTD	Not compatible with EWTD
Trauma and emergencies	Elective trauma operating and emergency experience	Weekly access to consultant supervised trauma lists and undifferentiated emergency cases	Unplanned access to trainer supervised trauma lists/cases	All trauma operating on unplanned emergency lists (shared with other specialties) with limited supervision.
Theatre sessions	Consultant supervised training sessions	4 sessions per week	3 sessions per week	2 or fewer sessions per week
Operative experience supervision in procedures where trainees has less than level 4 competency (early/middle phase)	Supervision should be one-on-one with trainer scrubbed.	>90% of supervisors scrubbed	60%-90% of supervisors scrubbed	Less than 60% of supervisors scrubbed
Outpatient clinics	Consultant supervised outpatient clinics	3 per week including a specialist clinic	2 per week including a specialist clinic	1 per week or no specialist clinic
Educational supervisor/coach/mentor (in addition to clinical trainers)	Assigned educational supervisor / mentor for whole of training	Named assigned educational supervisor for whole of training with planned meetings several times a year	Supervisor but no formal meetings planned - access to if requested	No access to formal meetings
Record of training progression and activity				
Domain	Descriptor	Green	Amber	Red
Training record/portfolio to measure progress	Training portfolio	Universal online record	Individual records in a variety of formats	No records
Experience register / logbook	Online record of experience / logbook	Universally accessible eLogbook	Individual logbooks in a variety of formats	No logbook
Competency progress / review of training	Review of competency progression	Formal annual review with external oversight	Informal annual review	No review
Multi-source feedback (MSF)	MSF is collected for each trainee from trainers, peers and allied professionals	At least once per year	Less than once a year	Never

is not the case, the burden of the cost of training falls upon the trainee.<sup>12,13</sup>

#### Active support for women in surgery

OMFS trainees have highlighted the fact that female trainees do not always find the nature of training posts conducive.<sup>14</sup> There is evidence that female surgeons perform better than male surgeons<sup>15,16</sup> so all efforts should be made to make training rotations attractive, supportive, and effective for female trainees. The option of LTFT training is important to retain female trainees in the workforce,<sup>17</sup> particularly as the gender balance within OMFS improves.<sup>18</sup>

#### Special requirements in OMFS dual degree nations

The special challenges in OMFS dual degree nations should also be considered.

#### Incorporation of second degree into specialty training

This was one of the key recommendations in the largest review of OMFS training in Europe (2008 GMC (PMETB) Report on Training in OMFS). In Germany and Slovenia, where this is the case, there are extremely competitive recruitment rounds. This gives geographical certainty during training and it is one of the most important developments sought by the specialty when it is not available.<sup>19,20</sup>

#### Routes into training from both dentistry and medicine

For countries with dual degree, training should be possible from dentistry or medicine as the first degree. The attainment of both degrees should be coordinated to avoid unnecessary repetition of content, perhaps by the development of curriculum-mapped, accelerated programmes, which may prevent unnecessary prolongation of training.

Table 4  
External assessment of training programme.

Domain	Descriptor	Green	Amber	Red
Trainee feedback	Formal feedback recorded	Universal feedback survey for all trainees with results reviewed externally and issues addressed	Some internal feedback	No feedback
Trainer feedback	Formal feedback recorded	Universal feedback survey for all trainers with results reviewed externally and issues addressed	Some internal feedback	No feedback
Training record/portfolio	Review of training records on completion of training	External review of all training records	External review of some training records	No external review
Experience register	Review of experience register	External review of all training records	External review of some training records	No external review
Summative assessment of knowledge (exit exam)	Summative assessment of knowledge	Formal assessment including written and oral elements by an external provider	Informal external assessment	Internal assessment
Summative review of portfolio experience/competence by external body	Experience defined with indicative numbers of key procedures.	Indicative numbers required to complete training, which includes competencies at level 4.	Internal review of indicative numbers but not required to complete training.	No review

Table 5  
Examples from European OMFS training.

Country	Example
Albania**	Training is conducted in a specialised facility to ensure focused and comprehensive training. Trainees actively participate in all surgical procedures, which enhance hands-on experience. The curriculum is well structured with a smooth transition from oral to maxillofacial surgery.
Austria	Extensive exposure to all pillars of OMFS through comprehensive surgical rotations. Opportunity to begin residency with a single degree (medical) and progress to a dual degree during training. Rotations include a variety of subspecialties, providing broad medical exposure.
Azerbaijan**	Recognised specialty with structured residency programme. Regular certification and continuing education courses keep skills current and validated. Qualified to work in both public and private sectors on certification.
Belgium	Comprehensive training in OMFS, including access to new technologies. Progression from observation to independent surgery enhances skill development. A double degree in OMFS is obtained at the end of the training.
Croatia	Detailed and comprehensive residency programme covering all relevant surgical branches. Close mentorship with experienced surgeons provides guided learning. Training emphasises hands-on experience and patient care.
Czech Republic	Dual tracks for medical and dental graduates accommodate diverse educational backgrounds. Mandatory rotations in various specialties broaden medical knowledge and skills. Extensive internship and course requirements ensure thorough preparation for certification.
Denmark*	Exposure to hands-on surgical experience in multiple hospitals enhances diversity of experience. Rotations in various medical specialties, including opportunities for international experience, combined with the requirement for 'prior experience' before entering training ensure trainees are well prepared.
Estonia*	Compliance with the European Working Time Directive ensures reasonable working hours. Opportunities for paid overtime. Access to mentorship and extensive professional literature facilitates continuous learning.
Finland	Dual qualification in 5-year programme aligns with other surgical specialties. Structured rotations in general and advanced surgery. Evaluation through core entrustable professional activities ensures progressive skill development.
France	High-quality medical education under national supervision. Opportunities for rotations in specialised departments throughout France. Access to updated European standards and professional development resources.
Germany	Accessible training opportunities for qualified candidates. Transferable components between medical and dental training shorten the path to dual qualification (medical training mandatory before starting higher surgical training). Structured educational pathways to OMFS specialty.
Greece	Extensive exposure to a wide range of specialties, including oncology. Excellent collaboration and mentorship throughout training. Opportunities for international fellowships due to full recognition of the specialty abroad.
Hungary	Highly practical training complements the theoretical knowledge acquired in medical school. Encourages the development of improvisational skills, which are critical for problem-solving in real-world scenarios. The programme is designed to overcome challenges such as budgetary constraints and to enhance resourcefulness in clinical practice.
Ireland	Newly revitalised programme with opportunities for training in both Ireland and the UK. Alignment with the UK Intercollegiate Surgical Curriculum Programme (ISCP) system adds credibility to the programme. Recent approval for the full training programme to be delivered in Ireland.

Italy	Structured programme with a mix of didactics, diaries and mandatory rotations. Opportunity for trainees to gain international experience. Rigorous annual evaluations maintain high standards of training quality.
Kosovo**	Extensive training experience in a tertiary care centre. Rapid transition to independent practice during residency. Extensive exposure to diverse pathologies enriches clinical skills.
Latvia	Integration of practical hospital work with regular theoretical seminars. Supportive training environment with attention to gender equity. Enhanced learning experience by working with diverse surgical teams.
Lithuania	Trainees have the opportunity to work closely with dentists on complex clinical cases, fostering extensive interdisciplinary collaboration. Opportunities abound for international internships and clinical rotations in specialised centres throughout the country, enhancing exposure to diverse practices and techniques. Extensive clinical work and practical skill development are combined with theoretical seminars to provide a well-rounded educational experience.
Luxembourg	Flexibility for students to transfer to partner universities in France, Belgium or Germany for specialised training. OMFS specialists in Luxembourg bring diverse experience and practice from their training abroad. The recent expansion of medical education, including the introduction of a Bachelor of Medicine, signals the potential future development of specialised training programmes in the country.
Moldova**	Training to become an oral and maxillofacial surgeon includes medical school, followed by a 5-year residency, then specialisation in OMFS. OMFS residents often work closely with other specialists to ensure a comprehensive approach to patient care. During residency, residents complete a variety of rotations including dentoalveolar surgery, implantology, otolaryngology, ophthalmology, neurosurgery, and many others.
The Netherlands	Comprehensive curriculum covering the full scope of the specialty. Objective assessment of skills and knowledge through Entrusted Professional Activities. Specialised training opportunities for those interested in oncological head and neck surgery.
Norway**	Trainees start operating from day one, providing immediate hands-on surgical experience. Exposure to a large volume of trauma cases provides valuable practical skills and knowledge. There is a strong emphasis on training and instruction in 3D planning for orthognathic surgery, with advanced technological methods incorporated into the curriculum.
Poland	Structured programmes for both medical and dental students. Mandatory rotations in various specialties provide a broad clinical perspective. Emphasis on comprehensive training covering both theoretical and practical aspects of OMFS.
Portugal	Introduction of a new detailed evaluation system to objectively assess surgical, scientific and other objectives. Mandatory rotations in different national OMFS departments and in border specialties enhance diverse clinical exposure. The residency programme emphasises comprehensive training, including a national examination for accessibility.
Romania	Emphasises a “learning by doing” approach within well-structured programmes that ensure that practical skills are developed alongside theoretical knowledge. Provides a friendly work environment that enhances the learning experience and professional growth. Covers a wide range of surgical topics, integrating theory and practice for a comprehensive education in the field.
Slovenia	A high-quality programme that meets European standards and provides thorough training. The unique training centre allows trainees to learn from experts in all areas of OMFS, providing a focused learning environment. The programme covers a wide range of topics from oral surgery to congenital deformities, ensuring well-rounded expertise.
Spain	A comprehensive 5-year programme that includes a competitive entrance examination. Early hands-on surgical involvement and collaboration with other specialties. Training covers the entire specialty, from oral surgery to facial aesthetics, in tertiary public hospitals.
Sweden*	Free access to higher education and residency training for all EU/EEA citizens, with financial benefits. Opportunity for dual qualification without incurring significant student debt. The system supports a broad approach to OMFS specialty training, including all EU/EEA citizens.
Switzerland**	Training in state-of-the-art facilities with access to advanced medical technology and research. A multilingual environment with excellent networking opportunities enhances learning and career prospects.
Turkey**	Free tuition and salary for trainees who enter the programme through a national examination. Training includes various fields related to OMFS, such as emergency medicine and plastic surgery. Trainees have the right to work as specialists at universities for two years after completing their training, increasing job security and experience.
Ukraine**	Trainees benefit from extensive hands-on experience with a high volume of patients, enhancing their clinical skills. Legal establishment of “maxillofacial surgery” as a distinct specialty in 2021 is encouraging growth and formalisation of the field. Significant opportunities for trainees to participate in surgery and clinical manipulations in university and clinical hospitals, including emergency care of war victims and experience in military medicine, provide a unique and invaluable perspective on trauma and emergency care.
United Kingdom**	A well-structured curriculum with clear competencies ensures thorough training. Long-established trainee support networks provide guidance and support. The wide range of practice covers both the public and private sectors, offering diverse career opportunities.

\* EU nation without medical OMFS

\*\* Non-EU nation

### *What good should look like in OMFS training programmes*

#### *Induction*

Making a good start to specialty training is important, but inevitably training time is restricted and pre-specialty training is variable. Induction to specialty training can be generic<sup>21</sup> or specialty-specific. Clearly-defined objectives, and introducing trainees to the ‘nuts and bolts’ of training, including how to build their portfolio and maintain their log-book, and how to reach the requirements to complete the training, are all immensely valuable. For OMFS a national induction programme could be time efficient and could help

to introduce new specialty trainees to their ‘peer group’, generating a sense of camaraderie and the opportunity to share knowledge and experience.

#### *OMFS curriculum – Experience and training opportunities provided*

Training programmes must be designed to deliver the whole curriculum. This may involve trainees spending time in training units that have opportunities not present in the ‘base’ rotation, for example, cleft and craniofacial experience, and it should not be present as an afterthought. Where a rotation does not have certain subspecialties there should

be the opportunity to have ‘taster’ sessions early in training to allow trainees who might be interested to acquire the necessary evidence to support an application for fellowships later on.

#### *Training rotation including private practice*

Even when the standard of training is excellent, trainees gain a richer experience when they have the opportunity to work with a variety of surgeons in different environments.<sup>4,5</sup> Experience in private practice may be required to offer the aesthetic element of the OMFS curriculum, giving the trainee the full range of professional experience.

#### *Training opportunities appropriate for phase of training*

At the start of specialty training, trainees should be able to acquire the knowledge and skills on which they can build. This often means focusing on core entrustable professional competencies (EPAs) rather than just the number of interventions.

#### *Research, critical appraisal, and audit*

Surgical training must include evaluation of evidence and exposure to research. Promoting scholarship is fundamental to developing patient outcomes and training. The minimum requirement is well defined by CANMED in the domain of ‘Scholar’.<sup>22</sup> The abridged CANMED core competencies as a specialist are part of the OMFS ETR ([CANMED Competencies – Abridged for UEMS](#)). Routes into research should be flexible, with a range of entry/return points to training.<sup>23</sup>

#### *Management and leadership*

Competencies in these domains, which are expected of all specialists, are also defined in the UEMS abridged CANMED competencies.

#### *Faculty training*

Training surgeons is a skill. A minimum standard for trainers<sup>24</sup> (clinical supervisors) should include regular teaching on the process of training, and an awareness of the curriculum and targets defined by a checklist that incorporates the different modules in the EPAs. Trainers who have individual responsibility for one or more trainees (assigned educational supervisors<sup>25</sup>) will need additional skills and knowledge as well as availability. Those running training programmes need management and strategic knowledge as well as ability, and learning these skills is essential.<sup>26,27</sup>

#### *Training placement*

##### *Notice of placement*

A good training programme should ensure that the trainee is given sufficient notice of any changes in a rotation or timetable to allow for family arrangements and time off, and to maintain their quality of life. At least eight weeks is the standard defined in the British Medical Association’s Good Rostering Guide (<https://www.bma.org.uk/media/1979/>

[bma-nhse-good-rostering-guidance-may2018.pdf](#)). Exceptions are noted and should be addressed.<sup>28</sup>

##### *Weekly timetable*

Having a defined and transparent weekly schedule that includes operative sessions, outpatient sessions including specialist clinics, and time for personal development/study/projects, creates a clear and open approach to training. A good timetable is one of the key quality indicators of all surgical training placements.<sup>11</sup>

##### *Appropriate placement and supervision*

Having operative surgery sessions at which the trainee only assists is not appropriate. In the early and middle phases of training, supervision should be one-on-one with the supervisor scrubbed. The monitoring of this is easiest with a national logbook used by all trainees and trainers. The eLogbook generates reports for trainees, their supervisors, and their trainers.<sup>11</sup>

##### *Working week, on-call, and out-of-hours experience – European Working Time Directive (EWTD)*

There has been a tradition in surgery of the need for excessive hours to give trainees sufficient experience. This is no longer appropriate.<sup>4,29</sup> Long working weeks are often filled with ‘work’ rather than training opportunities.<sup>3,30</sup> The EWTD<sup>31</sup> has been applied in many European nations to the benefit of training, trainees, patients, and families of trainees.

##### *Educational supervisor/coach/mentor*

Each placement should have a lead educational supervisor with whom the trainee can raise issues about training. The trainee should also have a lead educational supervisor. In some training rotations this lead supervisor provides mentorship and support for the whole of the trainee’s time. In others the supervisor changes as the trainee moves placements.<sup>32</sup>

##### *Teaching and education programme*

The delivery of a formal education programme is challenging in smaller training rotations/programmes. National education programmes<sup>33</sup> have been developed during COVID-19, and European programmes are available. The ideal combination is some local training, including journal clubs augmented by formal lectures and webinars on a regional, national, or European basis. These should be planned to cover the whole curriculum during the training programme and before any summative assessment. The trainee’s working timetable should incorporate time reserved for these scientific activities.

Training programmes should contain all forms of post-graduate teaching. Publications have supported trainee-led, didactic, online, and national programmes.<sup>33,34</sup> To be effective the teaching time should be protected to avoid distract-



tions<sup>4</sup> and the syllabus should cover all the domains of the programme of study (<https://www.jcst.org/-/media/files/jcst/quality-assurance/quality-indicators/omfsqisv10.pdf>) to the level required by the summative assessment. Teaching by trainees helps prepare them for their trainer role when they become specialists.<sup>26,35</sup>

### *Record of training progression and activity*

#### *Logbook and indicative numbers*

Evidence for the value of a surgical logbook for trainees and trainers in surgery is consistent and overwhelming.<sup>11,36,37</sup> For OMFS trainees there is the eLogbook from the Royal College of Surgeons of Edinburgh and a downloadable Access<sup>®</sup> logbook ([https://omfsuems.eu/\\_userfiles/pages/files/omfs\\_logbook/uems\\_omfs\\_surgical\\_experience\\_register.accdb](https://omfsuems.eu/_userfiles/pages/files/omfs_logbook/uems_omfs_surgical_experience_register.accdb)).

Indicative numbers of procedures, when detailed and specific, define a minimum level of experience expected in training. They are indicative in that they are not mandatory but rather expected. Some surgeons acquire competencies faster than others. A low number with evidence of competency at level 4 is appropriate for completion of training.

#### *Portfolio*

A written (online) portfolio with evidence across all the domains of training allows for regular review of a trainee's progress. In the penultimate year this should include a gap analysis against any requirements for completion of training.

#### *Multi-source feedback*

Multi-source feedback is a useful educational tool for highlighting training needs and can incorporate feedback from the multidisciplinary team. When this feedback is anonymous, it should be consolidated by a trainer who is trained to deliver feedback and is able to develop personal development plans (PDP) with the trainee.<sup>38,39</sup> Trainees should not receive feedback for the first time in high-stakes meetings or annually, but on a regular basis.

### *External assessment of training programmes*

External assessment of training programmes maintains standards. UEMS provides external appraisal of programmes in Europe. In the UK this is provided by the Royal Colleges of Surgeons.

#### *Formal feedback questionnaires*

Questionnaires can be a relatively blunt tool but are often the best route for trainees and trainers to raise concerns about training. When they are combined with an external appraisal of a programme they are almost always a force for good. The questionnaire may be run by the medical regulator (<https://www.gmc-uk.org/education/how-we-quality-assure-medical-education-and-training/evidence-data-and-intelligence/national-training-surveys>) or by an external training

body (<https://www.jcst.org/quality-assurance/trainer-survey/>, <https://www.jcst.org/quality-assurance/trainee-survey/>).

#### *Summative assessment*

Many forms of externally run summative assessments are used across OMFS in Europe. They include written assessments, clinical examinations, observed structured clinical examinations (OSCEs), and interviews (<https://www.jcie.org.uk/content/content.aspx?ID=16>, <https://www.jcie.org.uk/content/content.aspx?ID=9>). External examinations are the gold standard for assessing knowledge and understanding. The possibility of using modern forms of examination should be considered and encouraged where appropriate.

### *Examples from European OMFS training*

Finally, examples of trainees' subjective impressions, highlighting the positive aspects for training in each nation, are summarised in Table 5. These have come from 32 nations (Fig. 1).

## **Conclusion**

Defining and sharing standards of training raises the quality of care. We hope that by creating a RAG rating for OMFS training we can improve training in Europe for the benefit of our patients. We hope that these standards will be iterative. We invite comment and interaction so that these standards can continually evolve and improve.

## **Conflict of interest**

We have no conflicts of interest.

## **Funding**

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## **Ethics statement/confirmation of patients permission**

As a Delphi consensus, ethics approval was not required. No patient identifiable information was gathered or presented.

## **Appendix 1**

Behrus Puladi<sup>a,\*</sup>, Dirk Stephanus Brandsma<sup>b</sup>, Milad Tavakoli<sup>c</sup>, Emre Celep<sup>d</sup>, Richard Taylor<sup>e</sup>, Kenan Amiralıye<sup>f</sup>, Ingus Apse<sup>g</sup>, Íñigo Aragón Niño<sup>h</sup>, Gergely Balint<sup>i</sup>, Vlad Barbulescu<sup>j</sup>, Philipp Becker<sup>k</sup>, Jeff Berens<sup>l</sup>, Anže Birk<sup>m</sup>, Thomas Bondi<sup>n</sup>, Cyril Bouland<sup>o</sup>, Danielle Britton<sup>p</sup>, Frey Brus Madsen<sup>q</sup>, Najiba Charki<sup>r</sup>, Georgios Chatzopoulos<sup>s</sup>, Anestis Chrysostomidis<sup>t</sup>, Tomas-Marijn Croonenborghs<sup>u</sup>, Danilo Di Giorgio<sup>v</sup>, Mjellma Domi<sup>w</sup>, Andrea Filippi<sup>x</sup>, Lennart Gruber<sup>y</sup>, Sayf Hosamaldin<sup>z</sup>, Renato Isufi<sup>aa</sup>, Filip Kaczynski<sup>ab</sup>, Tiiu Kivimaa<sup>ac</sup>, Guro Knutsen<sup>ad</sup>, Kristina Kull<sup>ae</sup>, Eva Lackova<sup>af,ag</sup>, Ledja Lamçe<sup>ah</sup>,

Taur Lillestik<sup>ai</sup>, Alexandros Louizakis<sup>aj</sup>, Nima Mehrjoh<sup>ak</sup>, Jasper Moors<sup>al,am</sup>, Manuel Neiva-Sousa<sup>an</sup>, Dorota Ochrya<sup>ao</sup>, Merve Öztürk Muhtar<sup>ap</sup>, Agnès Paasché<sup>aq</sup>, Nutan Roshni Patel<sup>ar</sup>, Ilze Prikule<sup>as</sup>, Tudor Puiu<sup>at</sup>, Visar Ramadanani<sup>au</sup>, Mario Raši<sup>av</sup>, Olina Rios<sup>aw</sup>, Anna Romanova<sup>ax</sup>, Jacelyn Rooyer<sup>ay</sup>, Paul Sexton<sup>az</sup>, Adelita Sommacal<sup>ba</sup>, Dominykas Stankevičius<sup>bb</sup>, Daniel Thiem<sup>bc</sup>, Miika Toivari<sup>bd</sup>, Şeydanur Urhan Güçlü<sup>be</sup>, Lara Watson<sup>bf</sup>, Francesco Lemma<sup>bg,\*</sup>

<sup>a</sup>Department of Oral and Maxillofacial Surgery, University Hospital RWTH Aachen, 52074 Aachen, Germany <sup>b</sup>Regional Maxillofacial Unit, Queen Elizabeth University Hospital, Glasgow, United Kingdom <sup>c</sup>Department of Oral and Maxillofacial Surgery, Leeds General Infirmary, Leeds, UK <sup>d</sup>Department of Oral and Maxillofacial Surgery, Hospital of Wels-Grieskirchen, 4600 Wels, Austria <sup>e</sup>Department of Oral and Maxillofacial Surgery Leeds General Infirmary, Leeds, UK <sup>f</sup>Department of Oral and Maxillofacial Surgery, Azerbaijan Medical University, Baku, Azerbaijan <sup>g</sup>Department of Oral and Maxillofacial Surgery, Institute of Stomatology, Riga Stradins University Hospital La Paz, Madrid, Spain <sup>h</sup>Department of Oral and Maxillofacial Surgery, Somogy Varmegyei Kaposi Mor Oktató Korház, Kaposvár, Hungary <sup>i</sup>Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Hospital “Prof. Dr. Dan Theodorescu”, Bucharest, Calea Plevnei nr 17-19, Romania <sup>j</sup>Department of Oral and Maxillofacial Surgery, German Armed Forces Central Hospital, 56072 Koblenz, Germany <sup>k</sup>Department of Oral and Maxillofacial Surgery, University Hospital RWTH Aachen, 52074 Aachen, Germany <sup>l</sup>Department of Maxillofacial and Oral Surgery, University Medical Centre Ljubljana, Slovenia <sup>m</sup>Department of Oral and Maxillofacial Surgery, Hôpital de la Pitié-Salpêtrière, Paris, France <sup>n</sup>Department of Dentistry, Stomatology and Maxillofacial Surgery, Saint-Pierre Hospital, 1000 Brussels, Belgium <sup>o</sup>Newcastle University, Newcastle, United Kingdom <sup>p</sup>Department of Oral and Maxillofacial Surgery, Rigshospitalet, Copenhagen, Denmark <sup>r</sup>Affiliation is Department OMFS, Radboud UMC Nijmegen, Netherlands <sup>s</sup>Department of Oral and Maxillofacial Surgery, National and Capodistrian University of Athens, General Hospital “ATTIKON”, Athens, Greece <sup>t</sup>Department of Oral and Maxillofacial Surgery, General Hospital of Thessaloniki G. Papanikolaou, 57010 Thessaloniki, Greece <sup>u</sup>Division of Maxillo-Facial Surgery, Department of Surgery, AZ Sint-Jan Brugge AV, Ruddershove 10, Bruges 8000, Belgium <sup>v</sup>Department of Odontostomatological and Maxillofacial Sciences, “La Sapienza University of Rome”, Rome, Italy <sup>w</sup>Department of Maxillofacial Surgery, University Clinical Center of Kosovo in Pristina, Kosovo <sup>x</sup>Department of Maxillofacial Surgery, IRCCS San Gerardo dei Tintori, University of Milan-Bicocca, 20900 Monza, Italy <sup>y</sup>Department of Oral and Maxillofacial Surgery, University Hospital Göttingen, Germany <sup>z</sup>Department of Oral and Maxillofacial Surgery, Linköping University Hospital, Linköping, Sweden <sup>aa</sup>Department of Oral and Maxillofacial Surgery, Mother Theresa Hospital, Faculty of Medicine, Tirana, Albania <sup>ab</sup>Department of Otorhinolaryngology and Maxillofacial Surgery, Provincial Hospital in Elbląg, 14-500 Elbląg, Poland <sup>ac</sup>Department of Maxillofacial Surgery, Tartu University Hospital, Estonia <sup>ad</sup>Department of Oral and Maxillofacial Surgery, St. Olav’s University Hospital, Trondheim, Norway <sup>ae</sup>Department of Maxillofacial Surgery, Tartu University Hospital, Ludvig Puusepa 8, 50406 Tartu, Estonia <sup>af</sup>Department of Maxillofacial Surgery, General University Hospital, 128 08 Prague, Czech Republic <sup>ag</sup>Department of Oral and Maxillofacial Surgery, University Hospital, Salzburg 5020, Austria <sup>ah</sup>Department of Oral and Maxillofacial Surgery, Mother Theresa Hospital, Faculty of Medicine, Tirana, Albania <sup>ai</sup>Department of Maxillofacial Surgery, Tartu University Hospital, Estonia <sup>aj</sup>Department of Oral and Maxillofacial Surgery, Aristotle University of Thessaloniki, Specialized Cancer Treatment and Reconstructive Centre, General Hospital “George Papanikolaou”, Thessaloniki, Greece <sup>ak</sup>Department of Oral and Maxillofacial Surgery, The Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden <sup>al</sup>Faculty of Medicine and Health Sciences, University Hospital Ghent, 9000 Ghent, Belgium <sup>am</sup>Department of Oral and Maxillofacial Surgery, University Hospital RWTH Aachen, 52074 Aachen, Germany <sup>an</sup>Department of Maxillofacial Sur-

gery, Centro Hospitalar Universitário de Lisboa Central, Lisboa, Portugal <sup>ao</sup>Department of Cranio-Maxillofacial Surgery, Medical University of Warsaw, Clinical Hospital of The Infant Jesus in Warsaw, Poland <sup>ap</sup>Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Istanbul University, 34116 Istanbul, Turkey <sup>aq</sup>Maxillo-Facial Surgery and Stomatology Department, Amiens-Picardie university hospital, 80000 Amiens, France <sup>ar</sup>University of Warwick, Warwick, United Kingdom <sup>as</sup>Centre of Oral and Maxillofacial Surgery, Pauls Stradins Clinical University Hospital, Riga, Latvia <sup>at</sup>Department of Oral and Maxillofacial Surgery, Emergency Clinical Hospital, Chisinau MD-2000, Republic of Moldova <sup>au</sup>Department of Maxillofacial Surgery, University Clinical Center of Kosovo in Pristina <sup>av</sup>Clinic for Tumors, Clinical Hospital Center “Sisters of Mercy”, Ilica 197, 10000 Zagreb, Croatia <sup>aw</sup>Department of Oral and Maxillofacial Surgery, Head and Neck Institute, University Hospital Center of Nice, 06100 Nice, France <sup>ax</sup>Department of Maxillofacial Surgery and Innovative Dentistry, Institute of Postgraduate Education, Bohomolets National Medical University, Kyiv, Ukraine <sup>ay</sup>Department of Oral and Maxillofacial Surgery, Radboud University Centre, Nijmegen, The Netherlands <sup>az</sup>Department of Oral and Maxillofacial surgery Galway University Hospitals, Newcastle road, Galway, Republic of Ireland <sup>ba</sup>Department of Oral and Cranio-Maxillofacial Surgery, University Hospital Basel, Basel, Switzerland <sup>bb</sup>Centre of Oral and Maxillofacial Surgery, Institute of Dentistry, Faculty of Medicine, Vilnius University, Vilnius LT-08217, Lithuania <sup>bc</sup>Department of Oral and Maxillofacial Surgery, University Medical Centre Mainz, 55131 Mainz Germany <sup>bd</sup>Department of Oral and Maxillofacial Diseases, University of Helsinki and Helsinki University Hospital, Helsinki, Finland <sup>be</sup>Department of Oral and Maxillofacial Surgery, Lokman Hekim University, Ankara, Turkey <sup>bf</sup>Department of Oral and Maxillofacial Surgery, Northampton General Hospital, Thames Valley Deanery, Cliftonville, Northampton, United Kingdom <sup>bg</sup>Department of Oral and Maxillofacial Surgery, Ospedale dell’ Angelo Venice-Mestre ULSS3 Veneto, 30174 Chirignago-Zelarino (Venice), Italy

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