European Training Requirements for the Specialty of
Occupational Medicine

European Standards of Postgraduate Medical Specialist Training
(old chapter 6)

Preamble

The UEMS is a non-governmental organisation representing national associations of medical specialists at the European Level. With a current membership of 34 national associations and operating through 39 Specialist Sections and European Boards, the UEMS is committed to promote the free movement of medical specialists across Europe while ensuring the highest level of training which will pave the way to the improvement of quality of care for the benefit of all European citizens. The UEMS areas of expertise notably encompass Continuing Medical Education, Post Graduate Training and Quality Assurance.

It is the UEMS' conviction that the quality of medical care and expertise is directly linked to the quality of training provided to the medical professionals. Therefore the UEMS committed itself to contribute to the improvement of medical training at the European level through the development of European Standards in the different medical disciplines. No matter where doctors are trained, they should have at least the same core competencies.

In 1994, the UEMS adopted its Charter on Post Graduate Training aiming at providing the recommendations at the European level for good medical training. Made up of six chapters, this Charter set the basis for the European approach in the field of Post Graduate Training. With five chapters being common to all specialties, this Charter provided a sixth chapter, known as “Chapter 6”, that each Specialist Section was to complete according to the specific needs of their discipline.

More than a decade after the introduction of this Charter, the UEMS Specialist Sections and European Boards have continued working on developing these European Standards in Medical training that reflects modern medical practice and current scientific findings. In doing so, the UEMS Specialist Sections and European Boards did not aimed to supersede the National Authorities' competence in defining the content of postgraduate training in their own State but rather to complement these and ensure that high quality training is provided across Europe.

At the European level, the legal mechanism ensuring the free movement of doctors through the recognition of their qualifications was established back in the 1970s by the European Union. Sectorial Directives were adopted and one Directive addressed specifically the issue of medical Training at the European level. However, in 2005, the European Commission proposed to the European Parliament
and Council to have a unique legal framework for the recognition of the Professional Qualifications to facilitate and improve the mobility of all workers throughout Europe. This Directive 2005/36/EC established the mechanism of automatic mutual recognition of qualifications for medical doctors according to training requirements within all Member States; this is based on the length of training in the Specialty and the title of qualification.

Given the long-standing experience of UEMS Specialist Sections and European Boards on the one hand and the European legal framework enabling Medical Specialists and Trainees to move from one country to another on the other hand, the UEMS is uniquely in position to provide specialty-based recommendations. The UEMS values professional competence as “the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served”\(^1\). While professional activity is regulated by national law in EU Member States, it is the UEMS understanding that it has to comply with International treaties and UN declarations on Human Rights as well as the WMA International Code of Medical Ethics.

This document derives from the previous Chapter 6 of the Training Charter and provides definitions of specialist competencies and procedures as well as how to document and assess them. For the sake of transparency and coherence, it has been renamed as “Training Requirements for the Specialty of X”. This document aims to provide the basic Training Requirements for each specialty and should be regularly updated by UEMS Specialist Sections and European Boards to reflect scientific and medical progress. The three-part structure of this documents reflects the UEMS approach to have a coherent pragmatic document not only for medical specialists but also for decision-makers at the National and European level interested in knowing more about medical specialist training.

\(^1\) Defining and Assessing Professional Competence, Dr Ronald M. Epstein and Dr Edward M. Houndert, Journal of American Medical Association, January 9, 2002, Vol 287 No 2
I. **TRAINING REQUIREMENTS FOR TRAINEES**

1. **Content of training and learning outcome**
   a. **Theoretical knowledge**

   The theoretical knowledge required by medical trainees in Occupational Medicine covers 10 domains described below:

   1. **Framework for practice**
   The definition of occupational medicine and its relationship with occupational health, the role of occupational health services, the international context of the specialty, an understanding of the legal system as it relates to occupational physicians’ obligations within it, also ethics and confidentiality pertaining to practice as a physician, the ability to keep clear, accurate and legible contemporaneous records, and the use of relevant information technology systems and management of health information in medical practice.

   2. **Clinical practice**
   The knowledge to effectively assess workers or potential workers clinically in accordance with evidence-based practice and make appropriate recommendations in order to maximise the health and wellbeing of the worker/potential worker and minimize any harm caused by work, covers also assessment of psychosocial issues as well as physical injury/illness as well as the ability to communicate effectively. There is a requirement to be able to obtain informed consent and understand the potential ethical issues and areas of potential conflict in providing an objective assessment in work capability of an individual and communicate it to the relevant parties.

   3. **Fitness for work, rehabilitation and disability assessment**
   The culture of fitness for work and principles of workability, the knowledge required to assess function in workers or potential workers who are suffering from chronic disease or rehabilitating from acute injury or ill health, in a workplace setting and the use of workplace restrictions, potential adaptations and rehabilitation, also knowledge for specific occupations and industries, the potential risks and requirement for specific assessment assist in assessment of fitness.

   4. **Hazard recognition, evaluation and control of risk**
   The knowledge required to adequately assess workplaces including the recognition of potential hazards, assessment of residual risks after taking account of controls in place, and be able to make appropriate recommendations, also knowledge of occupational hygiene, appropriate use of environmental monitoring and legal requirements for the control of risk. It also covers knowledge of toxicology, human factors including ergonomics, shift work and organisational health.
5. **Business continuity, disaster preparedness and emergency management**
The knowledge required to manage first aid in the workplace including the emergency management of poisoning, also the knowledge to develop emergency response procedures within an organisation and understand the potential roles of occupational health in disaster and contingency planning within an organisation including management of epidemics and other public health risks to a workforce.

6. **Service delivery and quality improvement**
The knowledge of business management, clinical effectiveness and quality improvement in the delivery of clinical services within an organisation, including the principles and practice of management as it relates to an occupational health department, including managing human and budgetary resources, industrial relations, marketing, finance, business planning and the role of occupational health in a global marketplace and knowledge of effective and directed audit cycles resulting in quality improvement, systems of governance, role of direct stakeholder feedback, significant event analysis, complaints, guidelines, standards and other evidence-based protocols.

7. **Leadership, policy development and professionalism**
Clinical leadership, both within the department, organisation and specialty as a whole and its relationship with professionalism including commitment to life long learning, reflective practice, and an understanding of ethical behaviour, also the role clinicians have in developing health-related policy and means of influencing the health of workplaces/organisations.

8. **Epidemiology and preventive health**
The knowledge of health surveillance including legal requirements, its role in the workplace, and management of health surveillance programs to ensure clinical and operational effectiveness, also preventive health measures in the workplace, the role of workplace-based health promotion and other methods of disease prevention.

9. **Research methods**
The knowledge required to undertake research including the appropriate research design and methodology, application of statistics to answer a research question following an appropriate line of scientific enquiry adding to the body of evidence in occupational medicine. The domain also covers the ability to write up research appropriate for submission at Master’s level or publication in a peer review journal.

10. **Effective teaching and educational supervision**
The knowledge of education theory and effective teaching methods, also knowledge of the requirements for education supervision of trainees including design of individual training programs reflecting the approved curriculum, appropriate methods of assessment and giving effective feedback.
b. Practical and clinical skills

1. Framework for practice
Demonstrate
   - practical application of law as it relates to occupational physicians’ practice
   - the ability to deal with issues around ethics and confidentiality pertaining to practice as a physician
   - the ability to keep clear, accurate and legible contemporaneous records, including use information technology systems

2. Clinical practice
Demonstrate
   - the ability to take a full history including an occupational history, appropriate clinical examination, recommend investigations and develop a management plan relating the an individual’s ability to work taking into account any social factors or barriers to work
   - the ability to appropriately communicate with the worker/potential worker, explore concerns, give appropriate advice and negotiate a plan with regard to work
   - the ability to write a report to management demonstrating a full understanding of the problems relating to work, the ability to make an objective assessment of workability and give appropriate recommendations
   - the ability to obtain informed consent and understand the potential ethical issues and areas of potential conflict in providing an objective assessment in work capability of an individual and communicate it to the relevant parties

3. Fitness for work, rehabilitation and disability assessment
Demonstrate
   - the ability to assess disability, in patients with chronic disease or rehabilitation from acute injury or ill health, make appropriate decisions on fitness for work, with appropriate workplace adjustments/restrictions rehabilitation
   - the ability to perform a functional assessment appropriate to the risk profile of the occupation/industry including any specialist investigations and make appropriate recommendations with regard to fitness for work

4. Hazard recognition, evaluation and control of risk
Demonstrate
   - the ability to carry out a risk assessment of a workplace and make appropriate recommendations recognizing potential hazards, assessment of residual risks
   - the skills required to either conduct an ergonomic assessment in the workplace or recognise risks in a workplace that requires formal ergonomic assessment
   - the skills required to understand the application of occupational hygiene in the workplace including appropriate environmental monitoring
5. **Business continuity, disaster preparedness and emergency management**
Demonstrate

- the ability to manage first aid in the workplace including poisoning
- the ability to design emergency response procedures within a workplace
- the ability to take an active and appropriate role in disaster and contingency planning within an organisation

6. **Service delivery and quality improvement**
Demonstrate

- the requirement of principles and practice of management including managing human resources, understanding financial aspects of business, and the role of marketing, business planning and project management
- an understanding of the role of occupational health in a global marketplace
- a commitment to quality improvement through the engagement with audit using appropriate guidelines, standards or other evidence-based protocols
- the ability to use patient feedback, significant event analysis, complaints and outcomes of audit to improve quality of practice

7. **Leadership, policy development and professionalism.**
Demonstrate

- a commitment to life long learning and reflective practice through maintaining an up-to-date e-portfolio
- professional effectiveness including good organisational skills, time management, and decision making
- skills in leadership, working and leading a team
- an understanding of ethical behavior and professionalism

8. **Epidemiology and preventive health**
Demonstrate

- an understanding of the requirements of health surveillance including legal instruments, how it is implemented within the workplace
- an understanding of the role of workplace-based health promotion and other methods of disease prevention in the workplace

9. **Research methods**
Demonstrate

- the ability to undertake a research project using appropriate research methodology, statistical application to answer a research question following an appropriate line of scientific enquiry to add to the body of evidence in occupational medicine
- the ability to write up research in a rigorous manner appropriate for submission at Master’s level or publication in a peer review journal
10. **Effective teaching and educational supervision**

Demonstrate
- the ability to teach a subject relevant to occupational medicine
- the ability to design a training program in accordance with an approved curriculum

**c. Competences**

The competency framework for Occupational Medicine with required expected levels of performance has therefore been divided into:
- The first two years of specialist training develop the foundation knowledge, and skills required for occupational medicine practice.
- The second two year period of training focuses on higher level of application and expertise including and complex management of real-practice situations in a developing management and leadership skills within the specialty and across specialties when the trainee should have developed the skilled performance in all domains expected of a competent specialist.

Practical and System Specific Guidance are added in Annex 1.

2. **Organisation of training**

a. **Schedule of training**

A trainee specialist must complete 4 years full time specialist training program to meet the learning outcomes for occupational medicine. It will be common for trainees to have undertaken two years training prior to this in general internal medicine, or other specialties such as general practice. The training must include sufficient practical experience in the delivery of occupational healthcare services and assessment of workplaces to be able to meet the competency requirements. The maximum timescale in which the training must be completed is ordinarily 2 years beyond the expected date of completion of the program (or part-time equivalent); the program may however include out of program activities, such as research and studying for a higher degree (e.g. PhD).

It will be common for a trainee specialist to have first undergone training in another specialty and may prefer to obtain specialist accreditation using competency. They must however show sufficient evidence that they have reached all the competencies to the required standard as outlined in the curriculum.

The trainee should have sufficient linguistic ability to communicate with patients, clients and other staff involved in occupational health care delivery. The trainee should regularly read and be able to comprehend the international literature and be able to communicate with foreign colleagues.

b. **Curriculum of training**

The curriculum of training should deliver the competency framework outlined in the training requirements for trainees – the content of training and learning outcomes is described in the section above and in Annex 1. Each year of the 4 year program should provide training in all 10 domains.
more complex learning outcomes and performance expected as training progresses.

   c. Assessment and evaluation
The trainee should provide evidence of expected performance as outlined in the competency framework above. As a minimum, this should be provided as a portfolio of evidence against all the required competencies made up of performance based assessments. A sample portfolio of assessed evidence is attached at Annex A. Additional objective measures of competency delivered nationally may include written and or clinical examinations tailored to examine expected performance mapped to the expected performance described in the competency framework.

An annual interview by a competent authority based on objective review of the evidence against the competency framework providing a summative assessment of progress is required. Written feedback summarizing the competencies achieved and any gaps to be met in the next training year is to be provided to the educational supervisor. This report should then be discussed with the trainee and any adjustments to the training program should be agreed with the trainee and clinical supervisor. The interview should also confirm the ownership of the assessed submitted work and standard of assessments conducted. The review panel has the authority to approve successful outcome of each year of training and to highlight any concerns on the delivery of training

   d. Governance
External assessment of the progress of training is required on an annual basis through review of the portfolio of evidence against the competency framework by trained assessors in the specialty, and qualified medical educationalists provides governance for the training program. The review panel should conduct this separately to the approval of outcome of training and take evidence from trainees and supervisors in assessing the effectiveness of the training program.

II. TRAINING REQUIREMENTS FOR TRAINERS

1. Process for recognition as trainer

   a. Requested qualification and experience
All persons responsible for educational supervision/training within the specialty will be an accredited specialist in occupational medicine, and recognised by the responsible national authority. They should have been practicing occupational medicine for at least 5 years and be recognised within their nation as meeting the competencies required for the educational role. Educational tutors/supervisors are to be practicing within the specialty and appropriately trained for the additional educational role. Clinical supervisors should be an accredited specialist and have received training in providing close clinical supervision.
b. Core competencies for trainers
Educational supervisors should be trained in medical education, including designing training programs, evaluating training programs and managing poorly performing trainees and clinical supervisors. Supervisors are responsible for the overall delivery of training programs locally. Clinical supervisors require training in developing tailored training programs in line with the approved curriculum, providing effective targeted objective feedback to trainees against expected performance described in the competency framework, recognizing a poorly performing trainee and ensuring adequate resources are provided to support remedial training.

2. Quality management for trainers
Trainers are required to provide evidence of training in core competencies outlined above with refresher training on a regular basis (usually every three years). Peer support is recommended for both clinical and educational supervisors.

3 yearly review of training practice is required to be carried out by an approved independent body to ensure that standards are maintained and more frequently if there is evidence of a poorly performing trainee. This is to ensure that the poor performance is not due to gaps in provision locally. This might be undertaken in the context of appraisal and revalidation of doctors, depending on national legislative requirements.

Formal written feedback from trainees is to be provided to a third party to evaluate the performance of clinical supervisors (initially annually as a new supervisor and 5 yearly after the first 3 years of delivering clinical supervision). The feedback should be analysed by the educational supervisor, and objective, specific feedback based on performance should be given personally to the clinical supervisor by the educational supervisor. Peer review of training is also recommended by educational supervisors in cases of poorly performing trainees to ensure that the poor performance is not due to a mismatch in the trainee clinical supervisor pairing.

A similar feedback exercise by clinical supervisors submitted to the training authority or delegated body is required every 5 years to evaluate the performance of educational supervisors. A written report of objective, specific feedback based on performance should be delivered to the supervisor and highlight any further development needs to develop performance in this role.

III. TRAINING REQUIREMENTS FOR TRAINING INSTITUTIONS

1. Process for recognition as training center
   
a. Requirement on staff and clinical activities

A training centre maybe an institution or an organisation that has been accredited by a responsible body to provide specialist training in line with an approved curriculum that meets national guidelines, EU directives and UEMS requirements. The institution or organisation should be able to deliver training covering the breadth or the curriculum either in house or in concert with other occupational health providers/institutions who can provide training to the required program.
The appointed educational supervisor is responsible for overseeing the delivery of the training program for trainees and should review their progress throughout the training year. A personalized practical training program is required to deliver training in competences not previously met for each trainee. The program has to be approved by the educational supervisor/tutor and should deliver the curriculum requirements described.

The clinical supervisor is responsible for training within the institution or an organisation and should have regular contact with the trainee (at least once a week during the first two years of training). The ratio of clinical supervisors to trainees should ideally be one to one and should not exceed two at any one time to allow close personal monitoring of the trainee’s professional performance during their training program.

The training centre is to provide adequate resources to support a trainee completing research for peer review publication or as a thesis to Master’s level, either on-site or through partnership with an academic or research unit/department. This includes access to statistical support and staff who have experience in the conduct of research to give advice where needed.

b. Requirement on equipment, accommodation

The training institution is to provide access to appropriate resources including a library or on-line access to occupational health relevant texts and journals, either on-site or through partnership with an academic or research unit/institution. Examination rooms should be appropriately equipped for assessing workers/potential workers and screening equipment should be up to date, properly maintained and appropriate for the screening program requirements.

2. Quality Management within Training institutions

The training institution is to provide written evidence of resources to deliver the training program including credentials of any partnership with other providers/academic units. The accreditation board appointed by the specialty will conduct an assessment, initially reviewing the paperwork to ensure that all parts of the curriculum can be delivered within identified resources. Visits to the training institution are to be carried out on a 3 yearly basis and a report produced evaluating training.

Quality assurance and the management of postgraduate medical education is achieved through targeted and focused visits to the responsible Postgraduates Deaneries to assess the implementation of quality management of training, the approval process for training programs, posts and trainers, a national survey of trainers and trainees to collect relevant perspectives on training programs and their education outcomes. Finally, approval and review of the curriculum and associated assessment system needs to be presented.

Manpower planning is required to ensure that there are adequate trained members of staff to deliver training with a requirement for no more than two trainees to every one appointed clinical
supervisor. Additional human resources to support specific parts of the training program are to be identified.

All training programs are to be initially approved by the educational supervisor and submitted to the accreditation board for external review. Auditing is provided by the annual review of training and written reports are provided to outline any required amendments to training. Oversight of all training in the specialty is provided by the accrediting body who are required to quality assure the reports.