Training Requirements for Trauma Surgery

*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.

### Introduction

Trauma surgery covers all types of trauma, mainly visceral, neuro- and musculoskeletal trauma. Trauma surgery covers also the pre-hospital management, emergency room responsibility, intensive care management and rehabilitation.

Therefore trauma surgery is an important part of surgery, on the other hand for trauma surgery surgical basis, the common trunk, is essential, to get competence for all patterns of trauma.

Only trauma surgeons with a special training may have this competence. All surgeons with specialisation for trauma surgery (like in Germany, Belgium, Netherlands, Switzerland or Czech Republic) or Trauma Surgeons (like Austria, Hungary, Spain) should join an European Board of Trauma Surgeons. Division of the European Board of Surgery.

---

\(^1\) 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
This philosophy should expand to all EU countries. In those countries of EU, where trauma surgery is not present at this time, trauma management should be performed by surgeons. But for the future, in these countries, the surgery should be structured into specialities.

Applicants must possess a medical degree recognised in one of the EU countries. Training institution or, if present responsible administrative bodies, should select and/or appoint trainees suitable for the speciality in accordance to an established and recognized selection procedure. This selection procedure should be transparent and fair, and should be open to candidates fulfilling the criteria.

**Goal of training programme**

The primary goal of a training programme is to provide the trainee with a broad knowledge base, the necessary generic surgical skills and experience as well as professional judgement for independent surgical practice; a further goal is to promote critical evaluation and assessment, the ability of self-directed learning aiming to achieve clinical expertise, professionalism, excellence in management and communication skills as well as the ability to interact with other specialities and to conduct research.

I. **Training requirements for trainees**

**Commitment to the training programme**

- Trainees must be fit to practice medicine and surgery
- Trainees must demonstrate their commitment in an ethical and professional manner. They should be dedicated to patient care at the highest standard and participate to all recommended activities.
- They will abide to the rules and regulations of the training programmes.

**Communication abilities**

- The trainees must have sufficient linguistic skills to communicate and study international literature.
- The trainees must demonstrate the ability to record and convey the patients’ medical information and findings as well as discuss these with trainers and staff.
- The trainees must obtain informed consent from patients having explained in detail the operative procedure(s), its benefits and risks involved.
- The trainees must communicate with patients and relatives in a sensitive and caring manner.

I.1 A written Training Curriculum must be designed to provide a diversified and balanced syllabus (theoretical and practical) of Trauma surgery (TS) education detailing the content and aims of each year of training. This syllabus must be made available to all trainees and the faculty. Emphasis should
be placed on an adequate amount of protected time allocated for study and teaching outside clinical duties. It may be necessary for some units to formally organise specific training rotations in associated TS units, if adequate experience in certain fields cannot be provided internally.

I. 1.a Exposure to research. Trainees should be encouraged and would be expected to develop an understanding of research methodology. A trainer should supervise specific research projects. There should be protected periods of time where a trainee can participate in a research project. All trainees will be expected to be able to evaluate publications. In academic programmes opportunities for clinical and/or basic research must be made available to the trainee with appropriate faculty supervision.

Participation in meetings/courses: it is recommended that trainees attend the meetings of national TS society at least once a year (or an equivalent meeting). If possible trainees should participate to the Trauma Surgery Programmes or equivalent national/international training courses. During their training, they should also attend a subspecialty course/meeting and if possible hands-on-courses in anatomy or surgical techniques.

Trainees should keep a Trainee Portfolio containing details of previous training posts, examinations, lists of publications and presentations at meetings, courses attended, cumulative operative totals, copies of assessment forms corresponding to the different training periods.

I.1.b Practical skills

Training for trauma surgeons should be 6 years in minimum, approximately 50 % of this time in a trauma training programme. The specification of all details should be done by a European Board of Trauma Surgeons (EBTS).

Training in Trauma Surgery (EBTS) has the goal to enable surgeons to take care for all the forms of trauma, to get the responsibility for the coordination of all phases of traumatised patients, in diagnosis and treatment, including intensive care management and rehabilitation on a high standard level.

There should be established Rotation Periods covering all main areas of the specialty. These rotations should be organised in such a way to give trainees increasing responsibility as they progress during their training in the management of their patient and in operative practice. Surgical exposure should cover the complete scope of the specialty as described in the Definition of the Specialty. Optional
rotations may include radiology, pathology, anaesthesiology and other medical/surgical disciplines, depending on local requirements.

Some institutions may wish to use a structured Surgical Training Plan. The founding concept of such a plan is based on a continuous and systemic escalation of surgical responsibilities and competence through clinical training years 1 – 4.

Education Programme: There should be a well documented Education Programme throughout the training, which should include regular conferences, meetings, etc. There must be protected time allocated for study and teaching.

This Education Programme should consist of:

I. A Programme of basic/advanced lectures including visiting speakers;
II. Clinical presentations from related disciplines in joint meetings;
III. Pathology and radiology conferences;
IV. Journal club;
V. Mortality and morbidity meetings (with audited attendance);
VI. Research meetings;
VII. Teaching in ethics, administration, management and economics

Implementation of a training programme, training logbook

The trainee should be sufficiently exposed to inpatient, day stay and outpatient management in accordance to EBTS Guidelines.

The Training Program Director should be in charge of the training programme in accordance to the available facilities in the institution or group of institutions. When some facilities are not locally available it is his/her responsibility to find alternative solutions. There should be sufficient teaching staff in order to allow adequate supervision of each trainee.

Each trainee must keep an official national Logbook that meets the standards of the UEMS-EBTS logbook. The trainee will have to demonstrate that he/she has been sufficiently exposed to a wide range of cases as an assistant or a supervised operator. Logbooks must be monitored regularly, scrutinized and undersigned by the appropriate trainer and the Training Program Director.

I. 2 After the appointment, the Training Program Director and the trainee will sign a training agreement in the countries where this is required. This signed agreement should define – in terms of...
education and training – the respective duties and obligations.

I. 2.a Log-book an assessment
The trainee must keep a personal inventory of performance (logbook) up to date according to national rules and EU Directives as well as considering UEMS/European Board of Trauma Surgery recommendations and guidelines.

The trainee should keep a training portfolio, which should include an up-to-date curriculum vitae incorporating:

I. details of previous training posts, dates, duration and trainers
II. details of examinations passed
III. list of publications with copies of published first page (abstract)
IV. list of research presentations at local, national and international meetings
V. list of courses attended
VI. cumulative operative totals
VII copies of assessment forms for each training period, completed and signed by trainers for that period

Duration of training

I. 2. b Training must cover the full range of the speciality and end with the licence to practice Trauma Surgery.
TS training is of 6 years minimum duration, consisting of a minimum of 4 years training in clinical TS in an accredited programme. Of these 4 years dedicated to TS, at least 3 years should be spent in an UEMS member state and not less than 3 years in the same recognised programme. Training must include adequate exposure to surgery in general. 6 years duration of TS training is recommended.

Competence levels and certification for individual procedures

TS European Training Guidelines (Ref. European Training Guidelines; 2002) list the minimum operative totals to be obtained/exceeded by a trainee at the end of the training programme. These Guidelines document the “Competence Level” of the trainee for each procedure at the end of six years’ training.

On completion to training the trainee tabulates his/her cumulative operative totals and indicates his/her level of competence. The training programme may require completion of this form at the end of each year of training.

At the end of training, the Training Program Director certifies the attainment of:
I. satisfactory operative totals
II. adequate competency level for each procedure
III. satisfactory assessment forms for each year of training.

II. Training Requirements for trainers

II.1 Accreditation of trainers

Trainers must be certified Trauma surgeons. The Training Programme Director must be registered with the relevant national medical authority and possess the necessary administrative, teaching, clinical and surgical skills required to conduct the programme.

II. 1. a Training programme director

The Training Program Director must be a certified specialist for a minimum of 5 years. His/her substantial working contract must be within the training institution/network.

The CV of the Training Program Director should provide evidence of his/her continuing professional development (CPD).

The Training Program Director must have full secretarial and administrative support and there must be sufficient protected time for him/her to carry out his/her responsibilities.

II. 1. b Responsibilities of the Training Programme Director

To establish a transparent and fair selection and appointment process for trainees.

To arrange a balanced training programme with established rotations ensuring that the trainee will have complete exposure to all aspects of TS. The programme must be clearly defined and available to trainers and trainees.

To ensure that there is dedicated time allocated for training and that the trainers are fulfilling their responsibilities to oversee, support and assess the trainees.

To ensure that the individual trainees’ documentation (training portfolios) are up to date.

To advise trainees and ensure that they attend appropriate and approved courses.

To provide valid documentation as to the satisfactory completion of training.
To ensure the annual collection and compilation of the number and types of operative procedures performed in the department and also in participating units connected with the training programme.

To provide opportunity for research, audit and other educationally valid activities such as attending courses and scientific meetings.

To provide a yearly and the final report on each trainee.

II. 1. 1  Criteria for trainer status

Trainers should be certified TS surgeons who can demonstrate that they are in compliance with the requirements of continuing professional development.

Trainers must be recognised by the responsible national authority. Preferably the trainer is a Fellow of the European Board of TS.

Trainers should possess the necessary administrative, communicative, teaching and clinical skills, and commitment to conduct the programme.

Trainers should have received instruction for training (assessment of needs and teaching objectives) and evaluation of trainees. They should be able to assess learning needs, advise on teaching objectives.

Trainers should provide evidence of academic activities (clinical and/or basic research, publications in peer reviewed journals and participation in TS scientific meetings).

Trainers will require secretarial and administrative support.

There should be sufficient number of trainers. The ratio between the number of qualified specialists (teaching faculty) and the number of trainees should provide a close personal monitoring and provide versatile exposure to different schools of thoughts.

In countries developing the speciality transitional arrangements may exist.

Responsibilities of trainers

To set realistic aims and objectives for a rotation or training period.

To supervise the day to day work of the trainee in the ward, clinic, the operating theatre and during
on-call commitments.

To support and assess the trainees’ progress at the end of each rotation or training period.

To encourage the trainee to carry out research.

To ensure that there is appropriate balance between service commitment and training.

To ensure that the regular assessments and reports are completed and agreed upon both by the trainer and the trainee (under the supervision of Training Program Director).

To keep the Training Program Director informed of any problems at an early stage.

To manage with the other trainers under the guidance of the Training Program Director any inadequacies/deficiencies demonstrated by a trainee. The institution/network and if necessary the relevant national authority should become involved if the local conflict between the Training Program Director and the trainee cannot be resolved.

II. 2.a Certification

The National Authority/medical chamber is the responsible body for recognition/certification of medical specialties in each member state of the UEMS member states. The majority of these countries now have a compulsory Board Examination consisting of an oral examination, a written examination or both, to assess knowledge, clinical judgement and the candidates’ thought processes.

National bodies should be made aware of the existence of the European Board of TS Recognition of Qualification (RQ) – Assessment (CV & logbook, written and oral) with biannual sessions, which leads to European certification. European certification is not recognised as being equivalent to national certification.

II. 2.b Subspecialisation

Training is a continuing process. Competence in complex fields and specialist procedures exceeding the required operative totals and competence levels should be acquired after completion of training within the frame of subspecialisation fellowship (of one or more years) leading to a certified additive competence.
III. Training Requirements for Training Institutions

III. 1. a Accreditation of training institutions

The standards for recognition of national training institutions and educational networks are matters for national authorities, in accordance with national rules and EU legislation. In order to harmonize the different training programmes of Trauma Surgery, which should be met at national level. The visitation and evaluation of training institutions is an important feedback mechanism for maintaining standards and of quality control.

A training institution/educational network must have national recognition/accreditation, in agreement with UEMS/national standards. In order to be accredited, an educational programme must substantially comply with the special requirements for residency training in Trauma Surgery as set down by the UEMS Training Charter. Programmes must demonstrate their compliance with these requirements at the time of the site visit. It is recommended to carry out site visits in accordance with the Charter on Site Visits (www.uems.net/uploadedfiles/176.pdf).

Process for recognition as a training institution

Training institutions for the specialty of TS are recognised by the National Authority and/or National Board and/or medical chamber/medical society of the member country. The UEMS European Board (EBTS) will keep a register of approved institutions.

In order to obtain recognition, the training institution must comply with the national requirements for Residency Training in TS and the General Requirements in Graduate Medical Education of the UEMS Training Charter. The training institution/network must be able to demonstrate its compliance with these requirements (under the Responsibility of the national administrative body with the assistance of EBTS whenever requested).

The Application of the Training Programme Director must submit a Programme Application form to the National authorities/medical chamber/medical society describing the levels of staffing, space allocation, technical facilities, and in particular the Residency Training Programme. An application form template may be provided by EBTS via website.

The Site Visit
The site visit will be performed by the national authority and/or medical society or medical chamber in accordance with the guidelines of the UEMS Charter on Visitation of Training Centres (www.uems.net/uploadedfiles/176.pdf). The site visiting committee may be assisted by a representative of EBTS. The site visit aims to explore in detail the training programme, the educational and scientific environment by holding discussions with the
The Accreditation

The following decisions may be taken by the national authorities with regard to the accreditation status of a Training Institution and Programme:

I. Full accreditation may be granted by the national authorities, medical chamber/medical society if the programme has demonstrated its full compliance with the European Training Charter. The Department will receive a certificate indicating that the Department and the Training Programme fulfill the European Standards for Education in TS. The accreditation should be reassessed regularly by the national authorities.

II. Partial accreditation may be granted by the National authorities/medical chamber/medical society if the programme has demonstrated compliance with the European Training Charter for only a partial scope of the specialty or has training limitations. The Department will receive a certificate indicating that the Department and the Training Programme fulfills the European Standards for Education in TS for a specific spectrum of accreditation and/or for a limited period of training within the training institution/network. The accreditation should be reassessed regularly by the national authorities.

III. Accreditation may be withdrawn if the programme does not substantially comply with the European Training Charter. The National authority will cite those areas in which the reviewed programme does not comply with the standards. A new application will be submitted when the areas indicated are brought into compliance. Trainees will be reallocated in another recognised national or another training institution/network, in a UEMS country. The certificate of completion of specialty training will be delivered by the national authority where the training was initiated.

III. 1b

The training institution/educational network should possess an adequate infrastructure and offer qualitative and quantitative clinical exposure as defined in the scope of the White Book guidelines for specialty training. The nationally accredited training programmes which abide to the criteria set out by EBTS will obtain UEMS European programme approval delivered by the Board.
III. 2
A training programme must be reviewed every 5 years, or within 12 months following the appointment of a new Trainings Programme Director.

Program for Quality Assurance of training
The National Authority is responsible for setting up at national level a programme for quality assurance of training and of teachers and training institutions in accordance with national rules and EC legislation as well as considering UEMS/EBTS recommendations.

Manpower planning

The manpower committee of EBTS monitors the TS manpower by carrying out regular surveys in the EU. This committee provides data related to the existing manpower per region and per capita biannually. It positions the TS specialty in relation to the other medical and paramedical care providers in this field. Planners will have to take into consideration demographic changes in the population, the evolution of treatment modalities and resulting workload, and the possible effects of legislation on working hours and, in some centres, educational involvement of medical professionals. National professional bodies (responsible for the recognition of medical specialists in individual countries) should monitor and recognise TS training programmes using UEMS standards based on the Training Charter. The proposed ratio is 1 Trauma surgeon/about 15,000 to 25,000 of population depending upon the region considered.

Institutional quality management provisions

A training institution must have an internal system of medical audit and quality assurance. Quality assurance must be an integral part of the training programme of all training institutions/networks. A national register of approved hospital institutions/networks should be available.

Internal regulations: There should be written general guidelines within the training institution concerning patient care and patient information (patient’s informed consent) referrals, medical records, documentation, on-call and back-up schedules, days off, residents’ working schedules, attendance to conferences and to educational activities. These should be available to staff and trainees.

Internal medical quality assurance: There must be an internal system of medical audit, such as mortality and morbidity meetings, together with a clearly defined procedure for reporting of incidents.
The hospital should have taken measures (committees or regulations) in relation to quality control.

A programme and training in risk management and patient safety assurance should be implemented.

The hospital or the training institution should publish an internal annual activities report.