



UNION EUROPÉENNE DES MÉDECINS SPÉCIALISTES EUROPEAN UNION OF MEDICAL SPECIALISTS

Association internationale sans but lucratif

International non-profit organisation

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EUROPEAN UNION OF MEDICAL SPECIALISTS-UEMS

SECTION OF SURGERY, DIVISION OF TRANSPLANTATION

EUROPEAN TRAINING REQUIREMENTS IN TRANSPLANTATION SURGERY

Introduction

The UEMS is a non-governmental organization representing national associations of medical specialists at the European Level. With a current membership of 39 national associations and operating through 43 Specialist Sections and European Boards, 15 Multidisciplinary Joint Committees and 5 Thematic Federations, 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 20 years 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 reflect modern medical practice and current scientific findings. In doing so, the UEMS Specialist Sections and European Boards did not aim 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.



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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”*. 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 Transplant Surgery”**. This document aims to provide the basic Training Requirements for each specialty and should be regularly updated by UEMS Division of Transplantation to reflect scientific and medical progress. The three-part structure of this document 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.

The Division of Transplantation is a non-profit organization and was formed in 2007. It was the result of the work from May 2005 to February 2007 of the Transplant Working Group of the Section of Surgery of the UEMS and the European Board of Surgery (EBS). The main objective of the Division is to guarantee the best standard of care in organ transplantation in Europe by ensuring that training in transplantation surgery is maintained at the highest level. The Division operates in close collaboration with the European Society of Organ Transplantation (ESOT).



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The Division shall achieve its objectives by setting and recommending standards to the UEMS and the EBS and by encouraging health authorities, national and international transplantation societies to live up to such standards concerning all aspects of professional practice in transplantation surgery. The Division's membership is comprised by up to two representatives from each member state of the UEMS who shall be nominated by the competent professional medical organisation in official communication with the UEMS/ EBS. The Division also has a representative of ESOT who is appointed by the ESOT Council. The members of the Transplant Working Group of the UEMS and the EBS are the founding members of the Division. The Division is directed by an Executive Committee comprised by a Chairman (President), a Vice Chairman (Vice President), two Secretaries (Senior and Junior), a Treasurer and the Representative of ESOT. The Executive Committee communicates with the General Secretary of the UEMS through the Section of Surgery. The Executive Bureau of the UEMS shall communicate with the Division of Transplantation through the Section of Surgery on behalf of the European Union bodies. The Section of Surgery and the Executive of the UEMS shall be entrusted with communicating all opinions issuing from the Division of Transplantation to the Commission of the EU and the Advisory Committee for Medical Training. The Division is financed by the fees of applicants for their assessment of eligibility and examination for obtaining accreditation in transplantation surgery.

Since 2007 the Division organizes exams for the accreditation of European abdominal transplant surgeons, and since 2011 the accreditation of transplant physicians, immunologists and transplant coordinators.

General Policy Statement

The objectives of the European Board of Surgery (EBS) are to assess, set standards for and progressively harmonize the content and quality of training and continuing medical education in all fields of surgery within the member states of the EU and the other European countries.

There is a trend towards increasing specialization within surgery, which has progressed to different degrees in different parts of the EU and some of the fields of surgery encompassed by the EBS have become recognized in some countries as well-defined or even totally independent surgical specialties.

The trend towards greater specialization is supported by the EBS whenever consistent with improved standards of clinical practice and training. However, in order to meet the needs of the many European hospitals which are not large enough to justify the same highly compartmentalized departments of surgery that have become the norm in most teaching centers, it is essential to ensure that surgeons are able to obtain broadly based training



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across all the various fields. This makes it essential for newly emerging surgical specialties to continue to collaborate closely within the well-defined framework of the EBS.

In order to encourage beneficial specialization, while maintaining the integrity of surgery as a whole, it is the policy of the EBS to establish Surgical Specialty Boards to accommodate the special requirements of well-defined areas of surgical practice.

Surgical Specialty Boards have responsibility for establishing and monitoring standards of training within their specific field of surgery while the EBS functions as a "common house of surgery" to coordinate the interrelationship, recommendations and actions of the Surgical Specialty Boards as they develop.

The EBS will require input from the Specialty Boards in common trunk training. It is empowered to issue European Board of Surgery Certificates of Quality of Training (EBSQ) in the surgical specialties on the recommendation of its Surgical Specialty Boards.

The EBS cooperates with national professional authorities and especially with the scientific organizations in the process of standardization and harmonization of surgical curricula.

The standardization efforts are paralleled with the continuous development of surgical qualification, validation, certification, recertification, professional development and CME processes and projects.

The EBS enhances strategies to see the Board qualification (Fellowship of the EBS) legally adopted in the member states, aiming to a common European qualification process that also respects national and regional peculiarities.

Training Policy and Requirements

The Division of Transplantation promotes the harmonization of Transplant Surgery training programs in Europe. It acts as a coordinating and monitoring body for the training in Transplant Surgery in the EU and formulates standards, mentioned hereafter, for the training institutions, the trainers and the trainees within the specialty of Transplant Surgery.

Eligibility criteria for EBSQ examinations for the qualification as Fellow of the European Board of Surgery in Transplant Surgery

1. The applicant must hold a current license to practice as a surgeon (including but not limited to general/ abdominal/ digestive/ vascular surgery or urology).



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2. The applicant must be able to demonstrate that he/she has worked as surgeon for a minimum of 2 years in a transplant unit.
3. The applicant should also have attended at least one national/international training course and has attended at least one well-recognized international transplant congress in the last 3 years.
4. The applicant should present their surgical logbook at the time of the application. The logbook should be signed by the applicant's supervisor/department head/hospital director or the national UEMS delegate of the Division of Transplant Surgery who represents the Country where the applicant was trained.
5. The applicant should have published either one scientific paper in the field of transplantation in a peer reviewed journal or written a chapter in a national or international textbook on transplantation, or alternatively done at least one oral presentation in a well-recognized international transplant congress.
6. The applicant should be able to demonstrate the requested theoretical knowledge as well as practical and clinical skills.

Training in Transplant Surgery must be carried out in a well-recognized (by the relevant National Competent Authority) Transplant Centre, in the EU or outside the EU. Quality assurance of this can be evidenced by the UEMS Transplant Centre certification/accreditation.

The trainee should have time and opportunities for practical and theoretical study. Access to relevant national and international literature should be provided.

The ratio between the number of specialists on the teaching staff and the number of trainees at any given moment should be tailored to provide close personal monitoring of the trainees as well as adequate exposure of the trainees to sufficient practical work.

I. TRAINING REQUIREMENTS FOR TRAINEES

Content of training and learning outcome

Specialization in Transplant Surgery requires the acquisition of theoretical knowledge in the different aspects of transplantation, as well as practical and clinical skills; not only in transplant surgery, but also in regards to the management of chronic/terminal abdominal organ failure and organ replacement as a whole. It should prepare the trainee for the



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operative and non-operative management of patients, i.e. prevention, diagnosis, multidisciplinary decision-making, treatment, and management of immunosuppression.

Certification can be obtained for the following separate modules:

- 1-Multi-organ retrieval
- 2-Kidney transplantation
- 3-Pancreas transplantation
- 4-Liver transplantation

The Diploma of the European Board of Surgery Qualification (Transplantation) is obtained on Passing **Part II (Eligibility)** and **Part III (Examination)**. A candidate can be accredited for one or more modules. For obtaining accreditation for any of the modules 2, 3, or 4, it is mandatory to obtain accreditation for module 1 as well. In case of exceptional experience in modules 2, 3, or 4, some requirements for accreditation for module 1 may be waived. The decision to waive these requirements will be taken by the Working Group for Exams on behalf of the Executive Committee.

Preparatory Courses

The division has made a huge effort in organizing the preparatory courses, which are held every year in order to familiarize applicants with the clinical formats that are raised during board examinations, and to benchmark their knowledge against that from peers from different centres in different European countries.

The course has a structure based on the different certification modules, with interactive presentations, complex cases, audiovisual sessions and group discussions. Since 2018, the format of the course has changed significantly with more focus on clinical reasoning, a reduced number of didactic lectures, and more interaction through the use of case scenarios. For the first time we offered a practice Exam at the end of the course, in order for participants to get a feel for what they can expect during the actual exam. Preparatory Courses are usually very well attended with around 30-40 participants per course.

To date, 10 preparatory courses have been held in Budapest, Santander, Limassol, Tel Aviv, Venice, Athens, Pamplona, Prague, Paris and Lisbon.



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Part I- Applications

Transplantation is a multidisciplinary field by definition; Transplant Surgeons cooperate extensively with other specialties (i.e., anesthesia and intensive care, radiology, nephrology, hepatology, infectious diseases, endocrinology, internal medicine, cardiology, pathology, immunology, nuclear medicine, psychology and clinical pharmacology) in the management of patients. The acquisition of a multidisciplinary approach toward patient care must be the basis of the training in Transplant Surgery.

The focus of the exam is on clinical assessment and treatment. The transplant surgeon must be capable of evaluating potential candidates and offer the best treatment for their disease. The specialty also includes individual and general preparatory activities, such as vascular or peritoneal access surgery for the kidney transplant candidate.

Additionally, transplant surgeons are expected to have knowledge of anatomy, physiology, immunology, and pathogenesis of kidney, liver, pancreas and bowel diseases. They are expected to know the actions and toxic effects of immunosuppressive drugs, and drugs commonly used in chronic organ failure.

The transplant surgeon must be trained in the economics of health care, in the assessment of research methods and scientific publications, and be given the option of research in a clinical and relevant field.

The transplant surgery syllabus comprehensively describes theoretical knowledge and practical and clinical skills (= basis for an individual "logbook") mandatory for the qualification as a Fellow of the European Board of Surgery in Transplantation Surgery.

The syllabus should not be viewed as static but will be continuously revised and updated by the members of the Syllabus Working Group of the Division of Transplantation. It is noted that research and changes in medicine may lead to significant changes in theory and clinical practice and by that will influence the content of the syllabus.

The candidates are expected to update their level according to the recent surgical practice and scientific literature. To achieve the qualification as Fellow of European Board of Surgery in Transplant Surgery "Theoretical knowledge" and "Practical and clinical skills" have to be documented in the logbook for eligibility and will be assessed by examination once deemed eligible.



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Theoretical knowledge

The specialty of transplant surgery requires documented and assessed knowledge in 4 principal areas/modules as indicated in the **SYLLABUS FOR TRAINING IN TRANSPLANTATION SURGERY**:

Module 1. Multi-organ retrieval

Subject objective

- Ability to evaluate donor suitability
- Ability to retrieve abdominal organs for transplantation

Knowledge

- Evaluation of donor/ organ suitability; including living donors for kidney and liver, deceased donors
 - after brainstem (DBD) and circulatory (DCD) death
- Contraindications to organ donation: general, organ-specific, absolute/relative
- Criteria for brain/ brainstem death
- Pathophysiology of brain/ brainstem death
- Principles of donor management and organ preservation
- Surgical anatomy of multi-organ retrieval
- Donor transmitted diseases

Clinical skills

- Assessment and management of organ donors; living and deceased DBD/ DCD donors
- Kidney retrieval from deceased donor
- Liver retrieval from deceased donor
- Pancreatic retrieval from deceased donor



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- Kidney retrieval from live donor
- Principles of living liver donation

Professional Skills

- Understand ethical and medical-legal issues in organ donation and organ allocation
- Communication
- Teamwork
- Ability to act in a multi-disciplinary environment
- Check, record and retrieve relevant information from donor medical records

Module 2. Kidney transplantation

Subject objective

- Ability to assess patients for renal transplantation and manage their care

Knowledge

- Acute and chronic renal failure: causes, complications, pathophysiology, treatment options
- Anatomy: implantation site, kidney anatomy, including variations and anomalies
- Immunology: ABO compatibility, cytotoxic cross match, flow cytometry, HLA matching, immunosuppression, rejection
- Indications and contraindications for: deceased and living kidney donation and transplantation
- Principles of pre-op preparation and post-op management
- Principles of organ allocation
- Indications and advantages of pre-emptive kidney transplantation
- Altruistic living kidney donation and paired and pooled living kidney donation



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Clinical skills

- Evaluation of donor/ organ suitability; including living and deceased DBD/ DCD donors
- Select appropriate recipient from the waiting list (if organ offered to the centre, and not to a named recipient)
- Kidney retrieval from deceased donor
- Kidney retrieval from living donor
- Kidney transplantation: bench preparation, prepare implant site, perform vascular and ureteric anastomoses
- Manage post-op care: drug therapy, fluid management, laboratory and imaging investigations, renal biopsy
- Identify and treat post-op complications: drug side effects, infection, rejection, vascular and ureteric complications
- Post-transplant graft nephrectomy
- Vascular access and Peritoneal dialysis access experience or attendance of training course
- Microsurgery experience or attendance of training course

Professional skills

- Assess patients referred for kidney transplantation (including living donors): arrange appropriate investigations, counsel patients and families and facilitate informed consent, prepare patients for theatres



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- Demonstrate diagnostic, prescribing and counselling skills, good communication and teamwork
- Practice evidence-based medicine: audit, clinical trials, journal review
- Ability to act in a multidisciplinary environment
- Understand medico-legal and ethical issues
- Record and retrieve information from databases

Module 3. Pancreas transplantation

Subject objective

- Assessment of patients for pancreatic transplantation in consultation with a multidisciplinary team
- Operative management and postoperative care

Knowledge

- Diabetes: causes, complications, pathophysiology, treatment options (including islet transplantation)
- Indications and contraindications for pancreatic donation: simultaneous kidney and pancreas transplant, pancreas after (living donor) kidney transplant, pancreas transplantation alone
- Anatomy: pancreatic graft and implantation site
- Immunology: ABO compatibility, cytotoxic cross match, flow cytometry, HLA matching, immunosuppression, rejection
- Principles of pre-op preparation and post op-management
- Knowledge regarding kidney transplantation



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Clinical skills

- Evaluation of donor/ organ suitability; including DBD and DCD donors
- Pancreatic graft retrieval
- Select appropriate patient from the waiting list
- Pancreatic graft bench evaluation, preparation and implantation
- Manage post-op care: drug therapy, fluid management, laboratory and imaging investigations,
pancreatic graft biopsy
- Identify and treat post-op complications: drug side effects, infection, rejection, vascular complications, pancreatic fistula, graft pancreatitis
- Post transplant graft pancreatectomy

Professional skills

- Assess patients referred for pancreas transplantation: arrange appropriate investigations, counsel patients and families and facilitate informed consent, prepare patients for theatres
- Demonstrate diagnostic, prescribing and counselling skills, good communication and teamwork
- Practice evidence-based medicine: audit, clinical trials, journal review
- Ability to act in a multidisciplinary environment
- Understand medico-legal and ethical issues
- Record and retrieve information from databases

Module 4. Liver transplantation

Subject objective

- Assess and manage patients undergoing liver transplantation



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Knowledge

- Acute and chronic liver failure: causes, complications, pathophysiology and treatment options
- Immunology: immunosuppression, rejection
- Indications and contraindications for: deceased and living donor liver donation, liver transplantation
and re-transplantation
- Liver anatomy: anatomical variants, surgical anatomy for splitting/ reduction/ living donation
- Principles of pre-op preparation and post-op management
- Complications of liver transplantation and their management

Clinical skills

- Evaluation of donor/ organ suitability (including deceased DBD and DCD donation)
- Select appropriate patient from the waiting list
- Deceased donor liver retrieval
- Split liver procedure
- Deceased donor liver transplantation including: bench work preparation, common intra-operative challenges and variations
- Split liver transplantation or attendance of training course
- Manage post-op care: drug therapy, fluid management, laboratory and imaging investigations, liver biopsy
- Identify and treat post-op complications: drug side effects, infection, rejection, vascular complications, biliary complications, recurrent disease, hepatitis



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Professional skills

- Assess patients referred for liver transplantation: arrange appropriate investigations, counsel patients and families and obtain informed consent, prepare patients for theatre
- Demonstrate diagnostic, prescribing and counseling skills, good communication and teamwork.
- Practice evidence-based medicine: audit, clinical trials, and journal review
- Ability to act in a multidisciplinary environment
- Understand medico-legal and ethical issues
- Record and retrieve information from databases

The trainee must also be confident with the principles of radiologic investigations including detailed history, clinical examination, and imaging, as well as with understanding the indication for and limits of diagnostic imaging procedures in different age groups.

Additional Training requirements:

- Participate in diagnostic clinics
- Participate in chronic organ failure waiting list clinics and transplant follow-up clinic

Trainees are required to have a knowledge of diagnostic procedures that has been gained by attending chronic organ failure and transplant clinics together with specialist radiologist and surgeon as trainers.

Trainees should attend these clinics initially as observers, later seeing cases and presenting them to the trainers and, finally, when they are assessed to be capable, seeing cases and making decisions on diagnosis themselves with the trainer in attendance at the clinic for consultation when required.



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The trainee should understand which surgical procedures to recommend to each patient, and be clear about the protocols on which these recommendations are based (e.g. they must know the criteria by which patients are assessed suitable or unsuitable for transplantation).

For Kidney Transplant, trainees should also work in units where the access surgeon manages vascular and peritoneal dialysis access surgery, and has a link to a designated nephrology unit where nephrologists support the access surgeon in standard and complex cases.

The trainees should attend at least one operating lists per week devoted to general surgery in the uremic (kidney), cirrhotic (liver), diabetic (pancreas) patients during their specialty training year(s).

Part II - Eligibility

All eligibility criteria (including indicative numbers of operations) are a result of extensive discussions between Board members of the UEMS Division of Transplant Surgery, including all national delegates from the different UEMS countries, and reality checks in the different centres that were accredited by UEMS for Transplant Surgery Training.

To apply for certification, a candidate must fulfil the following eligibility criteria:

The candidate can apply for accreditation when he/she meets one of the following criteria:

Completion of surgical training in one surgical specialty (including but not limited to general/ abdominal/ visceral/ gastrointestinal/ digestive surgery, vascular surgery, urology, paediatric surgery) and is a board certified/ specialised surgeon in a country that is a member of the EU or the UEMS and has accomplished his/her transplant surgical training in an EU or UEMS member country.

Has completed the training in one surgical specialty (including but not limited to general/ abdominal/ visceral/ gastrointestinal/ digestive surgery, vascular surgery, urology, paediatric surgery) and is a board certified/ specialised surgeon in a country that is not a member of the EU or the UEMS, but has accomplished his/ her transplant surgical training in an EU or UEMS member country.

Has a temporary or a permanent licence to be trained or practise surgery in an EU or UEMS member country, and has accomplished his/her transplant surgical training in an EU or UEMS member country.

The candidate must be able to communicate in English.



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The candidate must have a minimum of 2 years of training in transplantation surgery. The training can be obtained in parts but the time from the initiation of the first part of the training to the end of the last part of the training must be a maximum of 4 years.

The candidate must provide a Logbook countersigned by the director of the transplant programme(s) where he/she obtained training in transplant surgery.

The Logbook must provide the following information:

Indexed Procedures (date, hospital, patient ID/ number but no information that allows identification of the patient's name, procedure)

Indication on whether the surgeon was the

(A) Assistant

(B) Principal surgeon assisted by a senior transplant surgeon

(C) Principal surgeon assisted by a junior surgeon



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The Logbook information should be provided in the following format:

DATE PATIENT NAME PROCEDURE (A) (B) (C) HOSPITAL ID#

The indicative minimum number of cases that the candidate must have recorded in his/her Logbook to be eligible for accreditation for each individual module are as follows:

Module 1: Multi-organ retrieval

	Assisted (A)	Performed (B+C)
Procurement of kidneys from deceased donors	20	20
Procurement of pancreases form deceased donors (incl. retrieval for islet cell transplantation)	10	2
Procurement of livers from deceased donors	10	10
Procurement of organs in DCD donors	5*	0

* Alternatively attendance of an accredited course (ESOT Course or Course endorsed by UEMS)

Module 2: Kidney transplantation

	Assisted (A)	Performed (B+C)
Procurement of kidneys from deceased donors	20	20
Kidney back table preparation	20	20
Deceased donor kidney transplantation	20	20
Kidney re-transplantation	2	0
Living donor kidney transplantation	5	0
Living donor nephrectomy	5	0
Pediatric kidney transplantation	5	0
Graft nephrectomy	5	2
Surgical or interventional management of complications of kidney transplantation	10	0
Kidney biopsy	5 (Attended)	0



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Module 3: Pancreas transplantation

	Assisted (A)	Performed (B+C)
Procurement of pancreases from deceased donors		
(incl. retrieval for islets)	10	2
Pancreas back table preparation	5	5
Deceased donor pancreatic transplantation	5	5
Surgical or interventional management		
of complications of pancreas transplantation	5	0

Module 4: Liver transplantation

	Assisted (A)	Performed (B+C)
Procurement of livers from deceased donors	10	10
Liver back table preparation	20	20
Deceased donor liver transplantation	20	20
Split/ Living donor liver procedure*	2	0
Liver re-transplantation	2	0
Surgical or interventional management		
of complications of liver transplantation	10	0
Liver biopsy	5 (Attended)	0

* Alternatively, attendance of an accredited course (ESOT Course or Course endorsed by UEMS)

1. The candidate must have a total of 20 credit points (CPs) based on the following system (10 CPs per event):

- Attendance of a transplant course; predominantly- but not exclusively - the ESOT educational courses or other EACCME accredited courses
- Participation at recognised international transplant congresses
- Participation at national transplant society congresses



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Part III-Examination

The Examination is one of the core activities of the Division. The first examination took place in 2007, and has been organized on a yearly basis thereafter, reaching its 11th edition this year, which will take place in Rome, October 12-13, 2018. More than 300 candidates have passed the exam to date, and became fellows of the European Board of Surgery Division of Transplant Surgery. At every exam, there are two ESOT examiners (appointed by ESOT) to ensure quality control. The exam is audited every five years for CESMA accreditation; the first favourable CESMA review took place in 2013. The examination Working Group of the Division is responsible for the preparation of the Exam (venue, examiners, standardisation and refreshing of content, and audit), performs eligibility checks of candidates, keeps timelines, and communicates with the Executive Committee of the Division.

One of the major achievements of the Examination is that the EU has recently decided to put these exams in its Organ Donation and Transplantation Action Plan for 2018 as the recommended way for quality control of training of all Transplant professionals in Europe.

- 1.** The examination takes place annually. In the year that ESOT holds its biannual congress, the examination takes place at the ESOT congress. The other year, the exam will take place either in the UEMS Headquarters in Brussels, or in another European city hosted by one of the Board members.
- 2.** There is a separate examination for each module.
- 3.** Each candidate is examined individually for every module for which he/she has applied
- 4.** For each module the candidate has to be examined by two examination panels; each panel consists of a total of four examiners:
 - a. The chairman who is a member of the Division of Transplant Surgery Board and is an expert in the field examined in the particular module. The chairman is appointed by the Exam Working Group on behalf of the Executive Committee of the Division.
 - b. Two members of the Division of Transplant Surgery Board who are



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appointed by the Exam Working Group on behalf of the Executive Committee of the Division, and of who are experts in the field examined. The chairman designates one of the two members to be the examiner responsible for keeping the minutes of the examination process. The minutes are signed by all members of the examining panel and are forwarded to the Executive Committee of the Division. The minutes are filed by the Senior Secretary of the Division.

- c. A representative of ESOT appointed by the ESOT Executive

5. Examination format

- a. Oral examination only.
- b. Each candidate will be examined by two different panels, each panel session will last 30 minutes, for a total duration of the exam per module of 60 min.
- c. The examination is structured as follows:

The oral examination by each panel consists of three 10 min tasks. Two tasks are clinical case discussions, and the third is to evaluate a clinical research paper. Each task has 10 questions scored 0-2. The maximum score for each oral task is 20 points.

0 points: the applicant gives a completely wrong answer *or* his/her answer is completely different to international guidelines and he/she cannot support his/her view, *or* it seems that the applicant does not know the subject *or* how to deal with the case presented to him/ her.

1 point: the applicant knows the subject; however his/her answer is different from guidelines or the expected answer but, it is a “reasonable” option and the applicant can support well his/her view.

2 points: the applicant gives the expected answer (*which is written in the examiners paper with questions/answers*) and shows good knowledge of the subject. The applicant supports his/her answer effectively.



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The maximum score from the oral examination is 60 points and a minimum to pass is 30 points with a minimum of 10 points from each task.

- d. A pass/fail mark will be decided by each panel for each module. Each member of each panel marks the applicant independently. Three “passes” are needed for the applicant to have an overall “pass” for each panel. If the candidate passes or fails both panels the decision is definitive. If the candidate passes one panel and fails the other, he/ she will be offered an examination on the same day by a third panel of examiners (with no examiners from the first two panels) for another of 30 minutes; the third panel makes the final decision of pass or fail.
- e. The decision of the examination panel is final and is not subject to appeal. An unsuccessful candidate is entitled to one more chance to take the exam for each module that he/she failed.
- f. The candidate is informed via e-mail about the result of the examination no later than two weeks from the date of the exam.
- g. The successful candidates are awarded the EBSQ in Transplantation Surgery (with specification for which modules) and are provided with the relevant Diploma.

II. TRAINING REQUIREMENTS FOR TRAINERS

A UEMS certified/accredited Transplant centre must have a Transplant Surgery training programme. The leader of the training programme should have passed the EBSQ examination in Transplant Surgery, but preferably either contributed as an examiner in the EBSQ examinations in Transplant Surgery or received a Transplant Surgery Honorary Diploma in the past.

Other specialist Transplant Surgeons working in accredited/certified Transplant Centres will be recognized as trainers and will be directed and supervised by the leader of the training programme.



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III. TRAINING REQUIREMENTS FOR TRAINING INSTITUTIONS

Process for Accreditation of Transplant Centres for Training in Transplant Surgery

The Division of Transplant Surgery of the UEMS Section of Surgery considers the accreditation of centres in Europe for training in Transplant Surgery of paramount importance, and has worked intensively to increase the number of accredited centers. Until now, eleven European leading centres in organ transplantation have been accredited (Oslo, Groningen, Budapest, Essen, Gothenburg, Rotterdam, Cardiff, Birmingham, Torino, Rome, and Innsbruck) and more are on the waiting list to be visited. This will allow future transplant surgeons to receive their training and European transplant fellowships according to the UEMS standards, in collaboration with ESOT.

The process of application and evaluation prior to accreditation for training is based on the well-established relevant practice of the UEMS; the steps are as follows:

1. Initially, the Centre has to submit an application to the Division of Transplant Surgery including:
 - a) A formal letter by the Chairman stating the wish of the Centre to apply and highlighting the history of the Centre, its major achievements, and providing evidence of any recognition i.e. certification at national and/or European level.
 - b) A report regarding the Centre and the Training Programme. The information must cover the following domains:
 - Brief description of the training setting in the last 10 years
 - Number of procedures performed at the Centre per year per organ (last 10 years)
 - Facilities available (Clinical, Academic, Research)
 - Facilities for experimental surgery
 - Access to anatomic dissection facility
 - Brief description of the training setting
 - Number of trained surgeons for a minimum time period of one year in the last 10 years (trainee surgeons, PhD students, fellows, visitors (minimum of 1 year), other visitors to be specified)
 - Number of surgical procedures per surgeon per organ
 - Number of surgical procedures per trainee per organ
 - Patient and graft survival at 1 year and 5 years



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- Outcome at 1 year of patients transplanted by trainees
- Library
- Choice of best 20 papers in the last 10 years including at least one of the trained surgeons (with I.F. JCR last edition)
- Grants for scientific projects in the last 5 years
- Courses, lectures and other teaching initiatives in the last 5 years
- Paediatric programs
- Language in student education
- Professional destiny of trained surgeons after fellowship/training time
- Graphs, tables, reports or any other material that describes the work of Centre, and especially its training programme can be included.

2. The application will be forwarded to Chairman and/or Secretaries of the Division of Transplant Surgery (cc to the UEMS Section of Surgery Headquarters in Brussels) via e-mail and will be reviewed by the Accreditation Working Group of the Division of Transplant Surgery, after which it will be shared with the Executive Committee of the Board.

3. If the initial application is approved, then the next step is for the Working Group to appoint an Accreditation Committee (including one Chairman) that will organize a visitation to the Centre. The Accreditation Committee has 3 members: two from Board of the Division of Transplant Surgery of the UEMS and one ESOT representative. The Committee will visit the Centre on site and meet with the Chairman, the Faculty and the Trainees and review onsite the work of the Centre in all the domains of the original application. The visit will last one day and it will be strictly professional with no social programme. The Centre applying for accreditation needs to cover the travel and accommodation expenses of the members of the Committee. An effort is made so that the members are from countries close to the applying Centre to minimize the expenses.

The outline of the onsite visit is as follows:



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Section of Surgery & European Board of Surgery

ACCREDITATION VISIT SCHEDULE

1. **Duration of visit:**
approximately 6 hours (ideally 9am - 3pm, including 45 min break for lunch)
2. **Facilities to be shown:**
 - Surgical Ward
 - Outpatient Unit
 - Animal Science Centre facilities
 - Skills Lab
 - Medical Library
3. **Two presentations:**
 - A. By faculty – max 30 mins (discussing history of centre, transplant results, structure of training in Transplantation – routes of entry, entry and exit exams)
 - B. by trainees – max 45 mins (description of the training setting, to cover working hours, whether they get protected teaching / training, on-call rota, on-call accommodation and dining facilities, whether they have a single tutor who is monitoring their academic/training progress, 24 hour? access to the Library, online journal access, etc.)
4. **Meeting with Fellows:** 20-30 min.
5. **Final Discussion (Visiting UEMS Team only):** 30 min
6. **Conclusive Meeting with the Director**

N.B: Please provide your original application document in **WORD** format

4. The Committee will produce a report and scoring of the Centre in the same domains of the initial application.

Each domain will be scored from 0-4:

0: insufficient/ absent

1: sufficient

2: good

3: very good

4: excellent



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A minimum score of 75% of the maximum number of points available is required for the Accreditation Committee to give a positive recommendation to the Division. This will be presented at the next business meeting of the Division where a vote will be taken by all members regarding the approval of the application; 2/3 majority needed for approval.

5. If approved the Centre will be awarded the Accreditation for Training Certificate of the **UNION EUROPÉENNE DES MÉDECINS SPÉCIALISTES - EUROPEAN UNION OF MEDICAL SPECIALISTS**.