



UNION EUROPEENE DES MÉDECINS SPÉCIALISTES
FEDERATION OF THE SURGICAL SCIENCES
SECTION OF SURGERY/ EUROPEAN BOARD OF SURGERY
DIVISION OF TRANSPLANTATION
EUROPEAN BOARD OF TRANSPLANTATION MEDICINE



EUROPEAN BOARD OF TRANSPLANT MEDICINE
UEMS-ESOT PROPOSAL

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DIVISION OF TRANSPLANTATION

1. SUMMARY

Section of Surgery / European Board of Surgery (EBS)

Division of Transplantation

European Board of Transplantation Medicine (EBTM)

The Division of Transplantation (called onwards in the document as Division) was formed in 2007. It was the product 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 medicine and surgery is maintained at the highest level. The Division operates in close collaboration with the European Society of Organ Transplantation (ESOT). The Division of Transplantation is a non-profit organisation.

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 medicine and surgery.

The Division's membership is comprised by up to two representatives from each member state of the UEMS. 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 Chair (President), a Vice Chair (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 (EU) bodies.

The Section of Surgery and the Executive of the UEMS is 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 medicine and transplantation surgery. The Division is also financed by any legal financial benefits for its contribution to various professional / scientific activities (i.e. meetings, publications). The Division can accept legal public (i.e. EU bodies, national government bodies, professional and scientific organisations) or private (i.e. gifts, contribution by the commercial sector) contributions / donations. A financial contribution / donation to the Division can only be accepted under the strict rule that is offered in order to help the Division to achieve its objectives and without any obligation of the Division towards the body(ies)/ organisation(s)/ person(s) offering the contribution / donation.

2. STATUTES

European Board of Transplant Medicine (EBTM) of the Division of Transplantation UEMS Section of Surgery and the EBS Union Européenne des Médecins Spécialistes

1. Introduction

The European Board of Transplantation Medicine (EBTM) was established in November 2010 as a joint initiative between the Division of Transplantation of the UEMS and ESOT, built on a foundation of strong reciprocal collaboration. Operating under the UEMS Section of Surgery and the European Board of Surgery (EBS), the EBTM works closely with ESOT to address training, professional standards, and practices in transplantation medicine across EU member states and UEMS countries. This partnership is further strengthened through active participation and membership of transplant professionals, fostering shared expertise and advancing collective goals. By ensuring the highest standards of patient care and education for transplant physicians, the EBTM and ESOT promote the harmonization of transplantation practices across Europe. The EBTM maintains a dynamic collaboration with ESOT, leveraging ESOT expertise in transplantation science and education to enhance the training and professional development of transplant physicians. The EBTM is a not-for-profit organization, committed to collaboration and excellence in transplantation medicine.

2. Title

The associate section shall be known as the EBTM of the Division of Transplantation, Section of Surgery of the European Union of Medical Specialists and the EBS.

3. Composition

3.1 The EBTM Working Group: Each member state of the UEMS can send up to two representatives (practicing transplant physicians) to the EBTM working group. They can be nominated either by the competent national transplant organisation and/or by the national transplant scientific society or they can be nominated directly by the EBTM working group in official communication with the UEMS office. Nominated national representatives have to be approved by the EBTM working group and by the chair of the EBTM.

National Representatives of EBTM of the Division of Transplantation of the UEMS and ESOT are listed in the EBTM Executive Board.

The EBTM working group also has a representative from the ESOT, appointed by the ESOT Council. The ESOT representative is a member of the Executive Committee, ensuring continuous collaboration between ESOT and EBTM. The Role of the ESOT representative is to present the views of ESOT to the Executive Committee and the EBTM members, to facilitate the exchange of knowledge and practices with ESOT's scientific committees, and to forward relevant documents between the two organisations. If the ESOT representative fails to fulfil the task as described above or fails to attend a significant number of the EBTM Board meetings, the EBTM executive committee will decide whether a new representative should be appointed. The ESOT council should then appoint another member as a replacement.

- 3.2 Ambassador program:** The EBTM Board can appoint transplant professionals as Ambassadors for the EBTM. Ambassadors must have passed the Fellowship examination (or have obtained the Honorary Certificate). The primary objective of the UEMS Transplant Medicine Ambassadorship is to promote the UEMS European Board of Transplant Medicine Examination as a standard of excellence in transplant medicine. Ambassadors engage with national transplant societies, academic institutions, and healthcare professionals to raise awareness for the exam and its value, to encourage registration and preparation among suitable candidates, to provide educational support and guidance for exam candidates, and to strengthen the academic recognition of transplant medicine as a subspecialty.
- 3.3** Each member of the EBTM working group has a tenure of 4 years. Members can be re-appointed. Following completion of their term, the members of the EBTM are responsible for ensuring their succession after consultation with their professional organisations / scientific societies. This is to ensure proper representation of all countries at any given time.
- 3.4** In the event that a country representative or the ESOT representative is no longer able to attend meetings and participate to the EBTM working group, a replacement must be appointed after nomination by the competent national transplant organisation and/or by the transplant scientific society respectively by the ESOT council. Their nomination is subject to approval by the Chair (President) of the EBTM.
- 3.5** The EBTM elects an **Executive Committee** from its members. The Executive Committee includes a Chair (President), a Vice Chair (Vice President), a Honorary President (Past President), two Secretaries (Senior and Junior), a Consultant (advises the Chair based on prior experience and expertise on matters related to administrative issues of the Board) and a Treasurer. The ESOT representative is also be a member of the Executive Committee.
- 3.6** The Chair and Vice Chair have a tenure of 4 years. The Chair does not have the right for re-election. The Vice Chair, the Senior Secretary, the Junior Secretary, the Consultant, the Honorary President and the Treasurer have each a tenure of 4 years followed by new elections. They can be reelected once for 4 additional years. The ESOT representative is appointed for a single four-year mandate and cannot be reappointed.
- 3.7** Election of Executive Officers: The election of the first committee took place at the first meeting of the EBTM. Subsequently nomination proposals for the members of the Executive Board of EBTM are submitted to the Chair. The Chair then presents the nomination proposals during the EBTM in person meeting at which the elections takes place.
- 3.8** The Chair and Senior Secretary of the EBTM or their representative shall attend meetings of the Division of Transplantation of the UEMS and the EBS as ex-officio members. If the Chair and/or or the Senior Secretary cannot attend the meeting, the Chair can authorise any other member of the Executive Committee to represent the EBTM.
- 3.9** The EBTM may appoint working groups to prepare draft documents or recommendations on specific topics for consideration by the full EBTM.

4. Objectives

The main objective of the EBTM is to guarantee the best standard of care for transplant patients in Europe and beyond by ensuring the highest standards of care training in transplantation medicine. Collaborating with ESOT, the EBTM aims to align training modules and examinations with the latest advancements in transplantation medicine, ensuring that certified professionals meet globally recognized standards.

5. Accountability

- 5.1** The EBTM shall report to the UEMS Management Council through the Division of Transplantation, UEMS Section of Surgery and the EBS.
- 5.2** Relations with any organisation or institution outside the UEMS shall be in accordance with article 11 (III) of the statute and article 24 (III) of the current rules of procedure.

6. Functioning

- 6.1** The EBTM in person meeting takes place every two years preferably after the EBTM exam, video conferences take place at least twice a year. The date and place of the next meeting is to be decided at the end of the previous meeting. Extraordinary in person or video meetings can be called by the Executive Committee or following the request of three or more members of the Working Group with approval by the Executive Committee. Meetings shall be organised so as to allow the maximum possible number of members to attend and to entail the minimum of expense.
- 6.2** Meetings may be attended by the Chair of the Division of Transplantation or the General Secretary of the UEMS or a nominated deputy who shall be a member of the Management Council. Meetings may also be attended by the President of the UEMS Section of Surgery or the President of the EBS or a nominated deputy who is a member of the Executive of the UEMS Section of Surgery. The EBTM should be informed beforehand in all cases.
- 6.3** The agenda shall consist of subjects proposed by the Executive Committee of the EBTM, the members of the EBTM, the Chair of the Division of Transplantation, the UEMS Section of Surgery, the EBS or the Secretary General of the UEMS.
- 6.4** The agenda shall be circulated to the Secretary General of the UEMS. The Sections Administrative Manager of UEMS will send the agenda, on demand, to the Section of Surgery and the EBS and the Executive of the Division of Transplantation prior to the meeting.
- 6.5** The minutes of the meetings shall be circulated to the Secretary General of the UEMS. The Sections Administrative Manager of UEMS will send them, on demand, to the Chair of the Division of Transplantation, the President and Secretary of the UEMS Section of Surgery, the President of the EBS, the General Secretary of the UEMS and the Management Council of the UEMS.

7. Financing

- 7.1** The EBTM is a non-profit organisation and is financed by the fees of the applicants for the two parts of the accreditation process: eligibility and examination. The EBTM is also financed by any legal financial benefits for its contribution to various professional/ scientific activities (i.e. meetings, publications). The EBTM can accept legal public (i.e. EU bodies, national government bodies, professional / scientific organisations) or private (i.e. gifts, contribution by the commercial sector) contributions / donations. A financial contribution/ donation to the EBTM can only be accepted under the strict rule that is offered in order to help the EBTM to achieve its objectives and without

any obligation of the EBTM towards the body(ies)/ organisation(s)/ person(s) offering the contribution/ donation.

7.2 The EBTM has a separate bank account to facilitate administrative issues. The Treasurer of the EBTM will keep the books and will have access to the account. The Treasurer will present a financial report at the EBTM meeting during ESOT.

8. Collaboration with other professional societies

Collaboration with other professional societies will be promoted in line with the purpose and objectives of the EBTM to further education, training and research.

3. CERTIFICATION

Modules

Certification can be obtained for the following separate modules:

- Module 1: Common module in Transplantation Medicine
- Module 2: Kidney transplantation module
- Module 3: Liver transplantation module

The Diploma of the European Board of Transplantation Medicine is obtained on passing the Eligibility and Examination parts. A candidate can be accredited for one or more modules. For obtaining accreditation for modules 2 and 3 (Kidney or Liver transplantation respectively), it is mandatory to obtain accreditation in module 1 (Common module) first.

In matters of certification, the European Board of Transplantation Medicine works closely with the Section of Transplantation and the ESOT.

Part I. Eligibility

Eligibility Assessment

Eligibility of an applicant will only be reviewed by the board once all required documents are provided and the Eligibility fee has been paid. Once these conditions are met, applications are treated by “first-come, first-served” principle. Incomplete applications or unpaid fees will delay the evaluation of the applicant. Thus carefully following the instructions and submitting ALL required documents facilitates the application process.

The applicant must fulfil the following requirements for eligibility :

Requirements

Criterion 1

The candidate MUST fulfil the following criteria:

- Has completed medical training in gastroenterology/hepatology or respectively in nephrology
- Has completed training in transplantation for at least 2 years
- Has license to practice and is currently practicing in transplantation in any of the following countries:
 - Full or associate members of the UEMS (see UEMS webpage for UEMS Full member countries and Associate member countries list)
 - Non-UEMS country based on proof of training and status of practice

Criterion 2

The candidate MUST be proficient in the English language

Criterion 3

The candidate MUST provide a logbook or an official document signed by the applicant and the Head of the Transplant Program that clearly attest ALL of the following points:

- a. the number of transplants performed annually by the centre
- b. the number of transplant candidates evaluated by the applicant
- c. the number of transplant patients managed peri-operatively by the applicant
- d. the number of pre/post-transplant patients seen by the applicant in outpatient clinics annually
- e. the number and type of procedures performed by the applicant as (A) assistant, (B) principal physician assisted by a senior transplant physician or (C) principal physician assisted by a junior physician

To be eligible for the examination for a specific module, the applicant MUST have completed the following number of procedures by the time of application. The numbers in criterion 3e must be attested by a logbook or by a document signed by the head of the Transplant Program.

Module Common trunk : Criterion 3 a+b+c+d

Module Kidney transplantation : Criteria 3 a+b+c+d+e

- 3e. Pretransplant evaluation of patients with renal disease >30
- Perioperative care of kidney transplant patients >30
- Post-transplant care of renal transplant patients >50
- Interpretation of allograft biopsy results >30
- Ultrasound of kidney transplant > 30

Module Liver transplantation : Criteria 3:a+b+c+d+e

- 3e. Pretransplant evaluation of patients with liver disease >30
- Perioperative care of liver transplant patients >30
- Post-transplant care of liver transplant patients >50
- Ultrasound of liver transplant > 50
- Interpretation of invasive and non-invasive tests of allograft injury (rejection, fibrosis etc) >50

Criterion 4

Proof of at least two (2) peer reviewed publications in the field of transplantation or at least two (2) poster and /or oral presentations by the applicant at an International Congresses as an indication of research activity in transplantation.

Criterion 5

The applicant must provide evidence of active learning and participation in any transplant courses, international or national congresses or symposia either as an attendee or as a presenter / lecturer within the last 5 years (certificates of attendance and/or program must be provided). Attendance of a minimum of two national / international educational transplantation meetings (courses, congresses, symposia) within the last 5 years is obligatory.

Criterion 6

6a. The applicant must provide a letter of recommendation in support of the application by the director/head of the Transplant Centre or Program where the candidate obtained training or is currently working as a transplant professional. This letter has to be OFFICIALLY SIGNED with the OFFICIAL LETTERHEAD (obligatory).

The letter should reflect in detail the candidate's professional development and expertise in transplant medicine. Contact information of the director/head must be provided (valid email and phone number) so that a contact can be established if needed.

6b. The applicant must provide the names and the contact details (affiliation, valid email address, telephone number) of two (2) additional transplant professional referees.

Application Form

The applicant must complete and sign the Application Form available on the EBTM website.

Application Documents

The applicant must attach the necessary documents to the online registration on the QuizOne platform (direct link through the EBTM website). In rare cases if online downloading of documents is not possible, then the applicant may send the documents by email to the President and Senior Secretary.

All Certificates, if not in English originally, must be translated in English by an official translator.

Application checklist:

- Completed Application Form
- Curriculum Vitae (CV)
- Proof of Identity (clear copy of official ID or Passport)
- Copies of all the medical training certificates translated in english
- Logbook or an official descriptive document as proof of the applicant's current work, training and experience in transplantation as per the eligibility criterion 3
- Proof of at least two (2) peer reviewed publications in the field of transplantation or at least two poster/oral presentations by the applicant at International Congresses as per criterion 4 .
- Proof of Attendance at minimum two (2) national and/or international educational transplantation meetings (courses, congresses, symposia) within the last five (5) years as per criterion 5.
- Letter of recommendation by the director/head of the transplant institution where the applicant trained or currently works (contact information required) as per criterion 6a.
- Names of two (2) additional transplant professionals as Referees supporting the application as per criterion 6b.

Part II. Fees & Cancellations

The fee structure is aligned with UEMS/EBS policies and is published annually on the EBTM website (both for the exam and Honorary Certificate).

The total fee for an EBSQ examination in Transplantation Medicine depends on the modules being examined

- Fee for the Eligibility Assessment
- Fee for the Examination of each module

Payment must be made via online directly on the Quiz One platform dedicated to registrations before the deadline dates.

- **The eligibility fee** has to be paid when the applicant registers for the exam.
- To finalize the registration for the examination **the examination fee** has to be paid within two weeks after confirmation of the eligibility of the applicant.

All fees paid are non-refundable. The exam fee may be transferred to another exam if more than 30 days notice is given.

- For those who have been assessed eligible, postponing the exam for up to 24 months is possible without having to pass and pay the eligibility assessment again. After 24 months the eligibility assessment must be re-done and the corresponding fee paid again.
- Those who **fail a module** are entitled to one more chance to take the exam for each module failed. The required documents for assessment of eligibility have to be submitted again and the corresponding fees paid again.

Cancellation policy

Cancellation/postponement up to 30 days before the exam:

- If already paid, the exam fees are postponed to next sitting. Additionally a 90 Euros administration fee will be charged when the candidate re-applies for the exam.

Cancellation/postponement less than 30 days before the exam:

- The paid exam fees are not refundable and cannot be transferred to the next exam. When re-applying for the exam, the applicant must pay the exam fee again as well as an additional 90 euros administration fee.
- Cancellation within 30 days of the exam under exceptional circumstances will be considered on a case by case basis at the discretion of the Board of Examination. Supporting documentation is required.

Part III. Examination format

Organization

There is a separate examination for each module:

- Common module in Transplantation Medicine (obligatory before the kidney or liver transplantation module)
- Kidney transplantation module
- Liver transplantation module

Each candidate is examined individually for each module for which the candidate has applied. The examination format is only oral. The duration of the exam for each module is up to 60 minutes.

Examination content

The examination includes direct questions on the topics listed under the syllabus for each module. It can also include discussion of cases, of histological or radiological findings.

Results & failures

A pass / fail mark will be decided for each module following discussion among the members of the examining board without the presence of the applicant.

The decision of the examining board is final and is not subject to appeal. An unsuccessful candidate is entitled to one more chance to take the exam for each module which has been failed. In this case, the candidate will have to submit again the required documents for eligibility assessment.

The successful candidates are awarded the fellowship to the European Board of Transplantation Medicine (with specification for which modules) and are provided with the relevant certificate.

Common Trunk Module

Introduction and objectives

The common trunk examines the basic principles underlying solid organ transplantation and the basic knowledge every transplant physician should have. This knowledge is general and not specific for any given organ transplanted, whereas in the organ transplant module, the requirements are more focused and in depth knowledge of organ-specific aspects are examined.

Required knowledge for the exam of the Common Trunk Module:

1. Ethical and regulatory considerations

- Informed consent for organ donation
- Opt-in and opt-out rules in deceased organ donation
- Concept of brain death and cardio-circulatory death, including pathophysiological consequences
- Organ procurement esp. in DCD situation (rapid procurement vs normothermic regional perfusion (NRP))
- Living donor issues incl. organ trafficking

2. Organization of transplant medicine

The candidate should know

- his/her country organization of deceased organ allocation, the transplantation law or rules, the transplantation services (including legal aspects) and give a critical appraisal on this subject.
- the main approaches among the transplantation organisations in Europe and in other part of the world incl. in Northern America.

3. General principles of organ preservation

- Ischemia-reperfusion injury
- Basic knowledge of organ perfusion (incl. perfusion machines) and conditioning

4. Immunology

- Innate and adaptive immune response
- Relevance of ABO blood group antigens in transplantation
- Role and nomenclature of HLA
 - Concept of sensitization
 - Role of HLA antibodies
 - Concept of cross matching
- Principles of tolerance and stem cells

5. General mechanisms of rejection

- Immune response to allograft: Mechanism of recognition, activation of immune signals, effector mechanisms, memory phase
- Inflammatory response to the allograft

6. Immunosuppression

6.1 General

- Action and pharmacology of immunosuppressants
- Concept of TDM and drug interactions
- Intrinsic effects/side-effects of commonly used immunosuppressants
- Rationale for the diverse immunosuppressive combinations

6.2 Specific

Steroids

CNIs

mTOR inhibitors

Mycophenolate

Azathioprine

ATG

IL-2 receptor blockade

Alemtuzumab

Costimulatory pathway inhibitor (belatacept)

IVIg

Anti-CD20 and anti-CD38 Ab (Rituximab, Obinutuzumab, Daratumumab, Felzartamab, etc.)

Anti-IL-6/IL-6R Ab (Tocilizumab, Clazakizumab, etc)

Complement-pathway inhibitors

Proteasome Inhibitors (Bortezomib, Carfilzomib)

Imlifidase

6.3 Side effects

- Long-term side effects of immunosuppression in general
- De novo immunosuppression-related cancers including skin cancer
- Renal function
- Cardiovascular side effects
- Diabetes
- Hematology

7. Infectious diseases

- Immune response to infections in the compromised host
- Knowledge of window of the occurrence of the diverse types of infection following transplantation
- Principles of viral, bacterial, fungal and other opportunistic infections
- Specific infections:
 - Herpes viruses, CMV, EBV
 - Hepatitis viruses: A, B, C, E
 - Poliomavirus BKV and JCV
 - HIV
 - *Pneumocystis jiroveci* pneumonia
 - Tuberculosis
 - Fungal infections
- Vaccination programs before and after transplantation (European consensus)

- Occurrence and management of diseases associated with viruses (Kaposi's sarcoma, skin cancer, cervical cancer, post-transplant lymphoproliferative disorders)

Kidney Transplantation Module

Objective:

Ability to recognise, assess and prepare patients with kidney failure for renal transplantation. Ability to manage patients' care before and after the transplant, in the immediate and long-term phase.

Required knowledge for the Kidney Transplantation Module:

1. The place of kidney transplantation in the treatment of kidney failure (according to international guidelines and considering the candidate's local practice)

- Treatment options for patients with kidney failure
- Indications and major contraindications for kidney transplantation
- Type of donor and optimal recipient outcome
- Waitlist management and kidney allocation policy issues
- Renal transplantation and health economy
- Legal and ethical issues in kidney transplantation

2. Evaluation of the recipient for kidney transplantation

- General investigations, including basic serology
- Recipient diabetes and obesity
- Complex cardiovascular evaluation
- Suitability for immunosuppressive therapy (infections, malignancies, gastro-intestinal diseases, etc)
- Primary renal disease and renal transplantation – special issues and contraindications
- Psychosocial issues
- Specific aspects of ethnicity among recipients
- Assessment of frailty in elderly candidates
- Overall risk assessment and strategies to improve physical condition
- Preemptive transplantation

3. Live kidney donation

- Live kidney donor evaluation process
- General contraindications for live donation
- Justification of the medically complex living kidney donor
- Evaluation of psychosocial and ethical suitability
- Alternative living donor programs (paired exchange donation, non-directed or altruistic donation)
- Surgical process of kidney donation incl. laparoscopic and robot-assisted retrieval
- Long-term follow up of live kidney donors

4. Renal transplantation specific immunology issues

- Histocompatibility of the donor and recipient, virtual and pre-transplant cross matching technologies, DSA measurement.

- HLA mismatches, virtual-PRA or CRF (UK), highly sensitized patients. Eplet matching and eplet load.
- Immune biomarker monitoring during post-transplant care
- Principles of ABO incompatible and HLA cross match positive incompatible kidney transplantation

5. Surgical procedure of kidney transplantation

- Deceased donor kidney suitability for transplantation (incl. anatomical issues, KDPI (kidney donor profile index))
- Pre-transplant procedures, indications for native nephrectomy
- Surgery of renal transplantation and postoperative surgical management
- Early and late surgical complications

6. Pre-, peri-, and early post-operative non-surgical management of the recipient

- Specific transplant related issues in fluid balance, acid-base and metabolic management
- Delayed graft function (cold and warm ischemia time, ischemia-reperfusion injury), effect of kidney preservation technologies, hypo- and normothermic machine perfusion.
- Perioperative indications of renal replacement therapy

7. Immunosuppressive therapy of kidney transplant recipient

- Indications for induction therapy, practical management of different agents: IL2-RAb, lymphocyte-depleting agents
- Initial maintenance immunosuppressive therapy, landmark studies and special indications
- Calcineurin Inhibitors: timing of initiation, dosing, choice of compound and formulation
- Mycophenolate: timing of initiation, dosing, difference between mycophenolate mofetil and sodium.
- mTORi: timing of initiation, dosing and combination with CNIs or without CNIs
- Belatacept: timing of initiation, dosing and conversion regimen from CNI
- Long-term maintenance immunosuppressive medication:
 - CNI-based protocols
 - CNI-free protocols
 - Corticosteroid avoidance or withdrawal protocols
- Therapeutic drug monitoring (TDM)
- Measuring biological efficacy of immunosuppression, biomarkers and immune monitoring
- Immunosuppressive drug interactions and role of kidney function

8. Infections and malignancies

- Kidney transplantation specific issues of infections (urinary tract infections, management of CMV, polyoma-virus, HBV, HCV, SARS-CoV and HIV)
- Renal transplantation specific issues of malignant diseases (incl. renal carcinoma)

9. Allograft dysfunction: differential diagnosis and therapy

- Differential diagnosis of early graft dysfunction
 - Clinical signs of acute rejection:
 - Risk factors for acute rejection
 - Subclinical rejection and protocol biopsies
 - Acute cellular and acute antibody-mediated rejection
- Differential diagnosis of late graft dysfunction – chronic rejection: clinical decision algorithm

- Imaging in kidney transplantation
- Performing and interpreting the result of biopsies based on Banff classification:
 - Histopathology of T-cell and antibody mediated rejection
 - Microvascular inflammation
 - Thrombotic microangiopathy
 - BK-Virus associated Nephropathy
 - Recurrent or de novo renal diseases
 - Chronic allograft damage, interstitial fibrosis and tubular atrophy
 - CNI toxicity
- “Molecular Microscope” – MMDx and other mRNA microarray diagnostics, dd-cfDNA (donor-derived cell-free DNA)
- Treatment of acute rejection forms: acute cellular rejection and antibody-mediated rejection
- Prophylaxis and management of recurrent primary renal diseases (incl. hemolytic uremic syndrome, IgAN, FSGS, C3-Glomerulonephritis)

10. CKD management in renal transplant patient

- Kidney graft function and CKD, effect on recipient and graft survival
- Cardiovascular disease: tobacco use, hypertension, role of albuminuria
- Metabolic disorders: Diabetes mellitus and NODAT, dyslipidemia management
- Nutrition aspects of the renal transplant patient
- Anemia and post-transplant erythrocytosis
- Management of the failed kidney graft

11. Other special issues

- Depression, anxiety and other psychological and psychiatric problems
- Post-transplant pregnancy
- Issues of pediatric kidney transplantation, transition from pediatric to adult care
- Diagnosis and management of non-adherence
- Management of renal transplantation in combination with other simultaneous or consecutive organ transplantations
- Systems biology in kidney transplantation, outcome prediction models

12. Evaluation of a manuscript (optional)

Liver Transplantation Module

Objective: the candidates should have special knowledge, meaningful practical experience and clinical skills to evaluate a liver transplant candidate and to manage the patient before transplantation and in the post-transplant course, on the short and long terms.

Required knowledge for the exam:

1. Indications and contraindications to liver transplantation (according to international guidelines and considering the candidate’s local practice)

- Pre-transplant management of major complications of cirrhosis

- Management of acute liver failure and of acute-on-chronic liver failure.
- Indications for liver transplantation in adults and pediatrics (according to age), general principles and specificities by indications and in special situations (HIV, re-transplantation)
- Contraindications to liver transplantation: absolute and relative
- Evaluation of the liver transplant candidate: physical, social, psychological assessments, addictive behaviors
- Assessment of frailty and sarcopenia in liver transplant candidates, evaluating the issue of frailty and sarcopenia on outcome

2. Management of the waiting list

- Management of patients with HCV and HBV, alcoholic, autoimmune related and other liver diseases on the waiting list.
- Assessment and management of the liver transplant candidate with renal dysfunction: indication to combined liver-kidney versus liver transplant alone
- Prognostic scores in chronic liver disease: Child-Pugh, MELD/reMELD-Na/MELD-Na/PELD scores; disease specific scores (PBC/PSC);
- Prognostic scores in acute liver failure and acute-on-chronic liver failure
- The issue of HCC: down-staging, priority and delisting
- Standard exceptions to MELD score (incl. variability on the standard exceptions)

3. Principles of organ donation and organ allocation

- Evaluation of the deceased and living liver donors
- Extended-criteria liver donor
- Liver transplantation using donors after cardiac death
- Matching the donor to the recipient

4. The liver transplant operation

- General principles of liver transplantation surgery
 - Whole organ transplantation technique
 - Split liver transplantation
 - Living donor liver transplantation including surgical evaluation
 - Domino transplantation
 - Auxiliary transplantation
- Coagulation and blood transfusion management
- Short and long term results, according to age, diagnosis, type of transplantation

5. Early post-transplant management

- Immunosuppression: initial protocols
- Acute rejection: diagnosis, histopathology and management
- Early renal dysfunction
- Respiratory, neurologic and cardiac function

6. Diagnosis and management of early complications

- Preservation and reperfusion injury including histopathology aspects
- Primary non-function and dysfunction
- Vascular complications including histopathology aspects

- Biliary complications including histopathology aspects
- Infections: diagnosis, histopathology, timing, risk factors, prevention and management

7. Long-term management

- Long-term immunosuppressive standard protocols
- Immunosuppressive strategies in special patient groups (i.e. HCV, HCC, autoimmune diseases)
- Drug interactions and toxicity
- Recurrent disease: incidence, histopathology, risk factors, prevention, treatment
- Late acute and/or chronic T-cell-mediated and antibody-mediated rejection (TCMR and AMR): diagnosis, histopathology, staging, management
- Late biliary and vascular complications
- Re-transplantation: indications and prognostic models

- Renal dysfunction: prevention and management
- Cardiovascular and metabolic complications: risk factors, prevention, treatment
- “De novo” malignancies: types, timing, prevention, treatment
- Long-term infections (CMV, EBV, etc..)

- Issue of adherence to medical regimen amongst adult and pediatric liver recipients
- Sexual function and fertility after liver transplantation
- Assessment of quality of life after liver transplantation
- Physical activity and sport

8. Evaluation of a manuscript (optional)

Part V. Examination

1. The examination usually takes place on the year that ESOT holds its Congress (2-year interval). The examination will preferably take place at the ESOT meeting depending on availability at the venue.
2. There is a separate examination for each module.
3. Each candidate is examined individually for every module for which the candidate has applied.
4. For each module the examination board has two examiners. In addition, the chair of EBTM is a member of the examining board. The two examiners are members of the EBTM and are appointed by the EBTM. They are experts in the field they examine. Both fill in the form with the scores attributed to the candidate and one of them is responsible for documenting the questions asked during the examination process. The minutes of the examination are signed by all 3 members of the examining board and are forwarded to the Executive Committee of the EBTM. The minutes are filed by the Senior Secretary of the EBTM.
5. Examination format
 - The current examination format is oral only. The Board reserves the right to introduce written or mixed assessments in the future, in alignment with UEMS/EBS practices

- The duration of the exam for each module is at least 30 minutes, up to 60 minutes.
 - The examination focuses on the topics according to the syllabus for each module. It includes direct questions, as well as questions based on presentation of clinical, imaging, laboratory and histological findings. Short discussion of clinical cases and of the topics in the syllabus can follow.
 - A pass/ fail mark will be decided for each module following discussion among the members of the examining board without the presence of the applicant. Each member of the examining board has one vote. Two positive votes are necessary for pass or fail mark to be decided.
- The examination is assessed on a pass/fail basis. A minimum of **70 points** (out of 100) is required to pass according to the used scoring system.
- The decision of the examining board is final and is not subject to appeal. An unsuccessful candidate is entitled to retake the exam for each module that the candidate failed.
 - The candidate is informed in person or via e-mail and in writing about the result of the examination: the communication occurred within a week from the date of the exam.

6. The successful candidates are awarded the European Diploma of Transplantation Medicine (with specification for which modules) and are provided with the relevant Diploma no later than 2 months from the date of the exam.

Part VI: APPLICATION FOR THE HONORARY CERTIFICATE (HC)

Preamble

The Honorary Certificate (HC) has been introduced in 2011. It was initially created as an option for senior transplant physicians to acquire the Fellowship of the European Board of Transplant Medicine without an examination until the UEMS examination has been established.

From 2026 on, the HC will only be attributed to an applicant recognised for a very high level of expertise in Transplantation Medicine and on the applicant's international profile. Taking the EBTM examination is also available for senior transplant medicine physicians.

Present criteria and requirements for HC

1. The HC applicant must be at least a senior transplant physician or head of a transplant program. A minimum of 10 years continuous experience with a maximal of 2 years of academic research in transplant medicine are required. The applicant must demonstrate international recognition for her/his clinical and scientific activity, as well as teaching activity and active membership in recognized scientific associations in the field of transplantation.
2. The applicant must provide at least one (1) exam candidate who fulfils the selection criteria for the upcoming EBTM examination. If all other criteria are fulfilled, the HC can only be attributed after the exam candidate has applied and has been declared eligible by the UEMS.
3. The HC applicant is expected to actively participate within the EBTM working group if the honorary certificate is granted.
4. The applicant has to submit the following application documents. These documents have to be sent directly to the Chair and to the Senior Secretary of the EBTM to be presented to the Board.

4a. An updated CV and publication list. The CV must be subdivided in the following sections: clinical activities (most recent at the top), scientific activities, teaching activity in the field of transplantation, past and active memberships in national or international recognized scientific transplant associations,. The publication list must entail all publications (most recent at the top) and the applicant's name highlighted in bold for each publication. A minimum of five publications is mandatory with a first or last authorship in a peer-reviewed journal.

4b. A letter of motivation signed by the applicant and with the official letterhead of the transplant center where the applicant is currently working.

4c. Two (2) letters of recommendation: one from the director or senior peer of the specific transplant centre where the applicant works and one from a transplant program director from another transplant centre or a letter from the president of the applicant's national transplant society. The letters of recommendation must emphasize the aspects of the applicant detailed under point 1.

FUTURE AMENDMENTS

The Statutes as well as the Certification process can be amended following relevant suggestions by one or more members of EBTM and approval by 2/3 (two thirds) of active EBTM members.

The syllabus is reviewed every 5 years, or earlier if required, to reflect scientific and clinical advances