



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 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 (EU) 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 medicine and 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/ 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

A working group aiming to establish the European Board of Transplantation Medicine (EBTM) was established in November 2010 and it was the product of the collaboration of the Division of Transplantation of the UEMS and ESOT. The European Board of Transplantation Medicine (EBTM) is part of the Division of Transplantation under the UEMS Section of Surgery and the EBS. The EBTM operates in close collaboration with ESOT. The EBTM advises on issues relating to training and professional practice in transplantation medicine within the EU as well as all member states of the UEMS, aiming to ensure the highest standards of patient care and training of transplant physicians. The EBTM also aims to contribute to the harmonization of standards of practice in Transplantation Surgery in Europe. The EBTM is a not-for-profit organisation.

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 There shall be up to two representatives, practising transplant physicians, from each member state of the UEMS, preferably nominated by the competent national professional medical organisation and /or scientific society in official communication with the UEMS. In any voting process, each country is entitled to only one vote. If a country has two members and one of them is present at the time of a vote, this member is entitled to vote without consulting the second member. If both members are present and consensus cannot be achieved, the most senior (longer serving member) is entitled to vote.
- 3.2 The EBTM has a representative from ESOT appointed by the ESOT Council. The representative of ESOT will be a member of the Executive Committee of the EBTM, present the views of ESOT to the Executive Committee and the members of the EBTM and vice versa and forward copies of the documents produced by the EBTM to the SOT Board.
- 3.3 The tenure of each member shall be for 4 years. Members can be re-appointed. Following completion of their term, the members of the EBTM are responsible for ensuring their succession following 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 none of the full members of a certain country are able to attend a meeting, they may nominate a deputy previously nominated by their medical organisation/ professional society to attend in their place, subject to prior approval of the Chairman of the EBTM. In the event that the ESOT representative cannot attend a meeting he/she should be represented by another member of ESOT nominated by the ESOT Council.

- 3.5 The EBTM shall elect an Executive Committee from its members, which will include a Chairman, a Vice Chairman, two Secretaries (Senior and Junior) and a Treasurer. The representative of ESOT will also be a member of the Executive Committee.
- 3.6 The Chairman and Vice Chairman shall have tenure of 4 years. The Chairman does not have the right for re-election. The tenure of the Senior Secretary, the Junior Secretary and the Treasurer will be for 4 years followed by new elections. The Representative of ESOT cannot hold a second post in the Executive Committee of the Division.
- 3.7 Election of Executive Officers: The election of the first committee took place at the first meeting of the EBTM. Subsequently, the following procedure was pursued:
- 3.8 Nomination proposals for the members of the Executive Board of EBTM will be submitted to the Chair. The Chair will then present nomination proposals for the Executive Board during EBTM meeting at which the elections will take place.
- 3.9 The Chairman 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 Chairman and/or the Senior Secretary cannot attend the meeting, the Chairman can authorise any other member of the Executive Committee to represent the EBTM.
- 3.10 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 by ensuring the highest standards of care training in transplantation medicine.

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 shall meet on each ESOT congress and have telephone conferences at least twice a year and the minutes of the meeting shall be forwarded, on demand, to the Division of Transplantation (Section of Surgery and the EBS) by the Sections Administrative Manager. The date and place of every meeting is to be decided at the end of the previous meeting. The meeting and the examination process will take place during the ESOT Congress. The exam will take place at each ESOT congress at 2 yearly intervals Extraordinary meetings can be called by the Executive Committee or following the request of three or more members and approval by the Executive Committee.
- 6.2 Meetings shall be organised in such a way that will allow the maximum possible number of members to attend and to entail the minimum of expense.

6.3 Meetings may be attended by the Chairman 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.

6.4 The agenda shall consist of subjects proposed by the Executive Committee of the EBTM, the members of the EBTM, Chairman of the Division of Transplantation, the UEMS Section of Surgery, the EBS or the Secretary General of the UEMS.

6.5 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.

6.6 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 Chairman 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

This 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:

1. Common module in Transplantation Medicine
2. Kidney transplantation
3. Pancreas transplantation
4. Liver transplantation
5. Heart Transplantation
6. Lung Transplantation
7. Intestinal Transplantation

The Diploma of the European Board of Transplantation Medicine is obtained on Passing Part I (Eligibility) and Part II (Examination). A candidate can be accredited for one or more modules. For obtaining accreditation for any other modules it is mandatory to obtain accreditation in 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 Executive Committee.

The European Board of Transplantation Medicine will work closely with the Division of Transplantation and the Division of Thoracic Surgery of the UEMS/ EBS. The Division of Transplantation works closely with the Division of Thoracic Surgery of the UEMS/ EBS and with ESOT for the promotion of the professional, scientific, training and educational objectives related to heart and lung transplantation.

Part I. Eligibility

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

Requirements

1. The candidate can apply for accreditation when he/she meets one of the following criteria:
 - a. Has completed specialist training in internal medicine/pediatrics and one of their subspecialties (including but not limited to gastroenterology/ hepatology/ endocrinology/ nephrology/ pulmonary medicine/cardiology), is a board certified/ specialist in a country which is a member of the UEMS and has accomplished his/her transplant medicine training in UEMS member countries.
 - b. Has completed specialist training in internal medicine/pediatrics and one of their subspecialties (including but not limited to gastroenterology/ hepatology/ endocrinology/ nephrology/ pneumology/ cardiology) and is a board certified/ specialist in a country which is not a member of the UEMS, but has accomplished his/her transplant medicine training in UEMS member countries.

- c. Has a temporary or a permanent licence to be trained or practise medicine in UEMS member countries and has accomplished his/ her transplant medicine training in UEMS member countries.
- d. During an interim period of two years following the creation of the EBTM, the certification could be awarded to experienced and practising transplant physicians upon application. In these cases following submission of the application the examination may be waived. The decision to waive the examination will be taken by the Executive Committee of the European Board of Transplantation Medicine.

2. The candidate must be able to communicate in the English language.

3. The candidate must demonstrate: 1) continuity and 2) width of training covering all the aspects of her/his specialty in transplantation medicine during the years of training. The candidate must have a minimum of 2 years of training in transplantation medicine. 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 maximum 4 years.

4. The candidate must provide an attestation countersigned by a senior transplant physician/head of Department and which must contain the following information:

- a. The candidate's experience in looking after transplanted patients including pre-transplant work up as well as 'in hospital' and 'outpatient' follow-up) and declaration about how many patients approximately the candidate was looking after in each setting per year.
- b. List of specialized medical procedures and indication on whether the physician assisted or performed the procedures.

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

- Attendance of transplant courses (predominantly -but not exclusively- the ESOT educational courses)	10 CPs
- Participation at recognised international transplant congress	
<i>i.</i> Attendance	5 CPs
<i>ii.</i> Participation with first or last authorship (oral or poster/abstract)	8 CPs
- Participation at national transplant congress	
<i>i.</i> Attendance	3 CPs
<i>ii.</i> Participation with first or last authorship (oral or poster/abstract)	5 CPs
- Attendance of transplant symposia (CME accredited)	2 CPs

Attendance of a minimum of two national/international educational transplantation meetings (courses, congresses, symposia) and participation with first or last authorship (poster/ abstract) is mandatory.

Note 1: The Continuing Medical Education (CMEs) points of every course/ congress/ symposium will initially count as CPs. Eventually a sub-committee of the European Board of Transplantation Medicine (two members of the Division of Transplantation and the representative of ESOT) will examine the available educational activities and award CPs to every activity.

Note 2: The following qualifications, although not mandatory, are considered of great importance and can count to the applicants favor:

- Higher degree (M.Sc., Ph.D.) in the field of transplantation, or nephrology, or immunology
- Publication(s) in peer review journals in the field of transplantation (especially as first or last author)
- Visit of a transplant centre/ laboratory of at least one month (either than the one where the applicant was mainly trained)

6. The applicant must complete and sign the following application form: (see next page)

APPLICATION FOR EUROPEAN BOARD OF TRANSPLANT MEDICINE QUALIFICATION IN TRANSPLANTATION

1. The applicant needs to fill out a registration form available on UEMS website. It is mandatory that the application form and all the relevant documents (including logbook, certificates of attendance of educational activities, certificates of eligibility and training in transplantation medicine, letter by one of the directors of the transplant program) will be uploaded on UEMS website. Any documents sent by mail will not be accepted. The deadline for submission of application for eligibility will be six months prior to the date of the next exam.

2. Please attach your CV.

3. Please provide a digital passport size photograph.

4. Please attach at the end extra pages with any information that does not fit in the space provided.

FAMILY NAME

FIRST NAMES

.....

.....

NATIONALITY

DATE AND PLACE OF BIRTH

.....

.....

ADDRESS FOR CORRESPONDENCE

HOME ADDRESS (if different)

.....

.....

.....

.....

TELEPHONE

FAX

E-MAIL

.....

.....

.....

PRESENT APPOINTMENT (title, department and hospital address)

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PLEASE INDICATE FOR WHICH OF THE MODULES YOU WANT TO APPLY

(please tick where appropriate)

1. Module 1: Common module in Transplantation Medicine (obligate)

2. Module 2: Kidney transplantation

3. Module 3: Liver transplantation

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FEES

The amount of 400 Euros must be paid to the European Board of Transplantation Medicine of the Division of Transplantation of the UEMS/ EBS. This can be done only by direct transfer to the following account:

Name of the account: UEMS/EBTM

Name of the Bank: BNP Paribas Fortis SA

Address of the Bank: Montagne du Parc 3, 1000 Brussels, Belgium

IBAN Code: BE54 0017 5625 2997

BIC/Swift Code: GEBABEBB

Transfer Text: EBTM Examination, your name

Amount: 400 Euros

From the total amount, 200 Euros allow you to be considered for eligibility for all modules. The amount is the same if you are applying for fewer modules. The other 200 Euros are the examination fees and allow you to be examined in all four modules. The amount is the same if you are applying to be examined in fewer modules. If you are not going to be considered eligible for the exam, the 200 Euros for the examination fees will be refunded to you.

In exceptional circumstances, an application for a reduced eligibility and/ or examination fees can be considered. The reasons for such an application must be clarified.

PLEASE ATTACH CERTIFICATES (TRANSLATED IN ENGLISH IF NOT IN ENGLISH ORIGINALLY) CONFIRMING THAT YOU BELONG TO ONE OF THE FOLLOWING CATEGORIES:

- a. You have completed your medical training in internal medicine/pediatrics and one subspecialty (including but not limited to nephrology, gastroenterology/hepatology, endocrinology, cardiology, respiratory medicine or in the equivalent paediatric specialities) and you are a board certified/ medical specialist in a country which is a member of the UEMS and have accomplished your transplant medical training in UEMS member countries.
- b. You have completed your medical training in internal medicine/pediatrics and one subspecialty (including but not limited to nephrologist, gastroenterologist/hepatologist, endocrinologist, cardiologist, respiratory medicine including in the equivalent paediatric specialities) and you are a board certified/ medical specialist in a country which is not a member of the UEMS, but have accomplished your transplant medical training in UEMS member countries.
- c. You have a temporary or a permanent licence to be trained or practise in a medical speciality in UEMS member countries and have accomplished your transplant medical training in UEMS member countries.

The translated in English certificates need to be co-signed by one of the representatives in the EBTM of the country where the certificates provided by the applicant were originated. If the member of the EBTM raises any concerns further documentation will be required.

UNDERGRADUATE AND POSTGRADUATE MEDICAL EDUCATION

Medical Degree (please provide certified copies of the relevant certificates translated in English if not in English originally)

Institution	Dates (from-to)	Degree
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.....
.....

Medical specialty training (please provide certified copies of the relative certificates translated in English if not in English originally)

Institution	Dates (from-to)	Degree
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Transplantation medicine training (please provide certified copies of the relative certificates translated in English if not in English originally)

Institution	Dates (from-to)	Degree
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.....

TOTAL DURATION OF TRAINING IN TRANSPLANTATION MEDICINE

Years **Months**

DECLARATION BY APPLICANT

I wish to apply for Part I (Eligibility) of the European Board of Transplantation Medicine (EBTM) for modules (please put in circle) 1 (obligate), 2, 3, 4, 5, 6, 7, which I understand may be awarded upon the recommendation of the European Board of Transplantation Medicine based upon assessment of my training experience. I declare that all information provided on this form in support of my application is correct.

Signature

Print name

Date

NAME AND HOSPITAL ADDRESS OF TWO PRINCIPAL TRAINERS IN TRANSPLANTATION MEDICINE

1

2

THE APPLICANT MUST PROVIDE A LETTER BY ONE OF THE DIRECTORS OF THE TRANSPLANT PROGRAMMES WHERE HE/SHE OBTAINED TRAINING IN TRANSPLANTATION MEDICINE IN SUPPORT OF THE APPLICATION

The application will be considered by a sub-committee of the EBTM. The sub-committee will have three members: the Senior Secretary and three nominated members of EBTM. The applicant will be informed prior to the exam by e-mail or mail for the acceptance or rejection of his/her application. 9. If the applicant is successful:

- He/she will be provided with information regarding the date/ time/ venue of the exam and a list of suggested textbooks to study in preparation for the exam.
- He/she will be provided with the Syllabus of the examination which is as follows for each module: (see next page) as well with the relevant suggestive reading.

SYLLABUS FOR TRAINING IN TRANSPLANTATION MEDICINE

Common Trunk Module

Introduction

The common trunk is the basic knowledge every transplant physician should have. This knowledge is general and is not specific for any given organ to be transplanted. For the diverse organs transplant modules there are requirements which can be more focused. For instance in depth knowledge of hepatitis viruses for the liver transplant physician and more in depth knowledge on HLA and matching for the kidney transplant module.

Objective: Knowledge of basic principles underlying solid organ transplantation.

Required knowledge for the exam

Common trunk:

1: Ethical and moral considerations

Informed consent
Concept of death
Concept of brain death
Organ procurement
Live donor issues

2: Organization of transplant medicine

The candidate should know his/her country organization of organ allocation and transplantation services (including legal aspects) and give a critical appraisal on this subject and emphasize differences between the European and the US approach
Public opinion in transplantation

3: General principles of organ preservation

Ischaemia-reperfusion injury
Basic knowledge of reperfusion machines

4: Immunology

Normal immune response
Acquired immune response
Innate 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
Effector mechanisms

Inflammatory response to the allograft

6: Immunosuppression

6.1 General

Action and pharmacology of immunosuppressants incl. concept of TDM and drug interactions
The intrinsic effects/side-effects of commonly used immunosuppressants
Understanding of synergy and the rationale for the diverse immunosuppressant combinations

6.2 Specific

Prednisolone
CNIs
mTOR inhibitors
MPA
Azathioprine
ATG
IVIg
IL2 receptor blockade
Alemtuzumab (Campath)
Anti-CD20 antibodies (Rituximab)
Costimulatory pathway inhibitors: belatacept
Eculizumab
Bortezomib

6.3 Side effects

Long term side effects of immune suppression in general
De novo cancers including skin cancer
Renal function
Cardiovascular function
Diabetes
Haematology

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

Kidney Transplantation Module

Subject Objective:

- Ability to assess and prepare end-stage renal disease patients for renal transplantation and manage their care before the transplant and after it, in the immediate and long term

Required knowledge for the exam

1. The place of kidney transplantation in the treatment of end-stage renal disease

- Treatment options for patients with end-stage renal disease
- Indications and major contraindications for kidney transplantation
- The type of the donor and optimal recipient outcome
- Waitlist management and kidney allocation policy problems
- Renal transplantation and health economy
- Legal and ethical issues in kidney transplantation

2. Evaluation of the recipient for kidney transplantation

- General investigations
- 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
- Recipient ethnicity
- Overall risk assessment and strategies to improve physical condition
- Preemptive transplantation

3. Live 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
- Long-term follow up of live donors

4. Renal transplantation specific immunology issues

- Histocompatibility of the donor and recipient, virtual and pre-transplant cross matching
- HLA mismatches, panel reactive antibody status and the highly sensitized patient
- Immune monitoring during post-transplant care
- Principles of ABO incompatible and HLA cross match positive renal transplantation

5. The surgical procedure of renal transplantation

- Pre-transplant procedures, indications for native nephrectomy
- Deceased donor kidney suitability for transplantation
- The surgery of renal transplantation and postoperative surgical management
- 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
- Cold ischemia time, ischemia-reperfusion injury, delayed graft function, kidney preservation
- Perioperative indications of renal replacement therapy

7. Immunosuppressive therapy of renal 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, tacrolimus vs cyclosporine
- mTORi, in combination with CNIs
- Long-term maintenance immunosuppressive medication:
 - CNI based protocols
 - CNI-free protocols
 - Corticosteroid avoidance or withdrawal protocols
- TDM monitoring during immunosuppressive protocols
- Measuring biological efficacy of immunosuppression, biomarkers and immune monitoring
- Immunosuppressive drug interactions and role of kidney function

8. Infections and malignancies

- Renal transplantation specific issues of infections (Urinary tract infections, CMV, polyoma-virus prophylaxis and treatment, HBV and HCV management)
- Renal transplantation specific malignant diseases

9. The differential diagnosis and therapy of allograft dysfunction

- Differential diagnosis of early graft dysfunction- clinical signs of acute rejection:
 - Risk factors for acute rejection
 - Subclinical rejection and protocol biopsies
 - Acute cellular and antibody-mediated acute rejection
- Differential diagnosis of late graft dysfunction – chronic rejection: clinical decision algorithm
- Imaging in renal transplantation
- Performing and interpreting the kidney allograft biopsy:
 - Histopathology of T-cell and antibody mediated rejection
 - Viral interstitial lesions
 - Recurrent or de novo renal diseases
 - Chronic allograft damage, interstitial fibrosis and tubular atrophy
 - CNI toxicity
- Treatment of acute rejection forms: acute cellular rejection and antibody-mediated rejection
- Prophylaxis and management of recurrent primary renal diseases

10. CKD management in renal transplant patient

- Kidney graft function and CKD, effect on recipient and graft survival
- Cardiovascular disease: tobacco use, independent predictors in KTR
- Hypertension and major antihypertensive agent classes in KTRs
- Metabolic disorders: Diabetes mellitus and NODAT, dyslipidemia management
- Nutrition aspects of the renal transplant patient

- Anemia and post-transplant erythrocytosis
- Management of graft loss

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
- Posttransplant pregnancy

12. Evaluation of a manuscript (optional)

Liver Transplantation Module

- A. **Subject objective** An applicant 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 contraindication to liver transplantation

- Pre-transplant management of major complications of cirrhosis
- Management of acute liver failure.
- Indications for liver transplantation in adults and paediatrics (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.

2. Management of the waiting list

- Management of patients with HCV and HBV, alcoholic and 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/MELD-Na/PELD scores; disease specific scores (PBC/PSC);
- Prognostic scores in acute liver failure
- The issue of HCC: down-staging, priority and delisting
- Standard exceptions to MELD score

3. Principles of organ donation and organ allocation

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

4. The transplant operation

- General principles of liver transplantation surgery
 - Whole organ transplantation technique
 - Split liver transplantation
 - Living donor liver transplantation including living donor 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/management
- Early renal dysfunction
- Respiratory, neurologic and cardiac function
- Frailty of liver transplant candidates, assessment and outcome

6. Diagnosis and management of early complications

- Preservation/reperfusion injury including histopathology aspects
- Primary non-function/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
- Renal dysfunction: prevention and management
- Cardiovascular and metabolic complications: risk factors, prevention, treatment
- “De novo” malignancies: types, timing, prevention, treatment
- Recurrent disease: incidence, histopathology, risk factors, prevention, treatment
- Long-term infections (CMV, EBV, etc..).
- The issue of adherence to medical regimen amongst adult and paediatric transplanted patients
- Late acute and chronic rejection: diagnosis/histopathology/staging/management
- Late biliary and vascular complications
- Re-transplantation: indications and prognostic models
- Sexual function and fertility after liver transplantation
- Assessment of quality of life following transplantation
- Physical activity and sports

8. Evaluation of a manuscript (optional)

Part II-Examination

1. The examination takes place on the year that ESOT holds its Congress (2-year interval). The examination takes place at the ESOT meeting.
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 examination board has two examiners, in addition the chairman of EBTM is a member of the examining board.,
 - The two members of the EBTM who are appointed by EBTM are experts in the field they examine. One of them will be designated to be responsible for keeping the minutes of the examination process. The minutes 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
 - Oral examination only.
 - The duration of the exam for each module will be at least 30 minutes and up to 60 minutes.
 - The first part of the exam will be examination on clinical topics that can include: direct questions, discussion of clinical cases, questions based on presentation of clinical, radiological/imaging, serological and histological findings.
 - The second part of the exam will be a general viva voce with discussion around the topics included in the syllabus of each module.
 - 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 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 he/she failed.
 - The candidate is informed via e-mail and in writing regarding the result of the examination no later than 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.

FUTURE AMENDMENTS

The Statutes as well as the Certification (Part 1-Eligibility, Part 2-Examination) 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.

NATIONAL REPRESENTATIVES

National Representatives of EBTM of the Division of Transplantation of the UEMS and ESOT will be listed by the EBTM Executive Board.