WORKING GROUP

MINIMAL INVASIVE SURGERY

Please nominate the national delegates:

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Wolfgang Feil  
President European Board of Surgery
1. Introduction

Minimal Invasive Surgery (MIS) is a Working Group within the "Section of Surgery" which was formed in 2015 to prepare specific advice on issues relating to training, harmonisation, standardisation of training and professional practice in Minimal Invasive Surgery (MIS) within the UEMS countries for the benefit of training in MIS and patient care.

The "Working Group of MIS" is a non-profit organisation.

2. Title and Board

The section shall be known as the "Working Group of MIS" associated with the "Section of Surgery" of the "European Union of Medical Specialists" (UEMS) and the "European Board of Surgery" (EBS).

The "Working Group of MIS" with its "Board of MIS" is especially responsible for the MIS Board Examination of the EBS.

3. Composition

3.1. There shall be up to two representatives from each member state of the UEMS who shall be nominated by the competent national professional medical organisation(s), which can be the national scientific society and/or professional organisation in official communication with the UEMS and the EBS.

3.2. 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.

In the event of a full member being unable to attend a meeting, he/she may nominate a deputy previously nominated by the national medical organization to attend in his place, subject to the prior approval of the chairperson.

3.3. The "Working Group of MIS" may include non-voting delegates representing e.g. the major European scientific societies, associations for surgeons in training and representatives of the associated and observer countries of the UEMS.
Official national organisations for MIS surgeons in associated and observer UEMS countries may be invited to nominate representatives to attend meetings at the discretion of the President. Representatives of these countries shall not have entitlement to vote.

3.4. The tenure of each full member shall be for 4 years. The mandate shall be renewable. Following completion of their term, the members of the "Working Group of MIS" are responsible for ensuring their succession following consultation with their professional organisations. This is to ensure proper representation of all countries at any given time.

3.5. The President of the UEMS Section of Surgery and the President of the European Board of Surgery shall be voting members of the "Working Group of MIS".

3.6. The "Working Group of MIS" shall elect an Executive Committee from amongst its members, which will include the Chairperson, Vice Chairperson, a Secretary and a Treasurer. The last two offices may be held by the same person.

3.7. The Chairperson and Vice Chairperson shall have a tenure of 4 years and shall be eligible for re-election. The Chairperson and Vice Chairperson shall not be elected at the same time. The tenure of the Secretary will be for 4 years, renewable for up to two further terms of 4 years. The Vice Chairperson and Secretary/Treasurer shall be eligible for election as Chairperson. A Founding and/or Honorary President can be full-voting member of the Executive Committee.

3.8. Official representatives of full EU member states shall be eligible for election to office. For the election of Executive Officers the Secretary will notify members of the "Working Group of MIS" of an impending vacancy one year in advance and ask for nominations at the same time. Any nomination should be proposed and seconded by two members of the Working Group. The Secretary will then arrange a postal ballot to all members of the Working Group 6 months before the appointment will become active.

3.9. The Chairperson and Secretary of the Working Group shall attend meetings of the Speciality Section of Surgery of the UEMS and the EBS as ex-officio members. If the Chairperson or the Secretary cannot attend the meeting, the Chairperson can authorise any other member of the Executive Committee to represent the "Working Group of MIS".
3.10. The Working Group may appoint working parties or commissions to prepare draft documents or recommendations on specific topics for consideration by the full "Working Group of MIS".

4. Objectives

4.1. To prepare advice concerning all aspects of professional practice in MIS in the context of the EU for the benefit of the EU political administration through the UEMS structure and ensuring that training in MIS is maintained at the highest level.

5. Accountability

5.1. The "Working Group of MIS" shall report to the UEMS Management Council through the UEMS Section of Surgery and the EBS.

5.2. Relations with any organization or institution outside the UEMS shall be in accordance with the current UEMS rules of procedure.

6. Functioning

6.1. The "Working Group of MIS" shall meet at least once per year and the minutes of the meeting shall be forwarded to the UEMS Section of Surgery and the EBS. The date and place of every meeting is to be decided at the end of the previous meeting.

The Working Group meetings can be in conjunction with the UEMS Section of Surgery as common trunk to all Boards is an issue.

The business meeting of the Working Group can be linked to a EBS MIS examination process and to the relevant location.

Extraordinary meetings can be called by the Executive Committee or following the request of one or more members and approval by the Executive Committee.

6.2. Meetings will be made known to the Section of Surgery.

6.3. 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.

6.4. Meetings may be attended by 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 Management Council of the UEMS Section of Surgery.
6.5. The agenda shall consist of subjects proposed by the members of the Working Group, officers of the UEMS Section and Board.

6.6. The agenda shall be circulated to the members and the Secretary General of the UEMS, the UEMS Section of Surgery and the EBS at least 1 month before the meeting.

6.7. The minutes of the meetings shall be circulated to all members, 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 within 1 month of the meeting.

7. Financing

7.1. The "Working Group of MIS" is a non-profit organization and is financed by the fees of the applicants for the two parts of the MIS EBS Eligibility I and II accreditation process.

The Working Group is also financed by any legal financial benefits for its contribution to various professional/scientific activities (i.e. meetings, publications).

The Working Group 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 Working Group can only be accepted under the strict rule that is offered in order to help the Working Group to achieve its objectives and without any obligation of the Working Group towards the body(ies)/organisation(s)/person(s) offering the contribution/donation.

7.2. The Working Group shall hold a subaccount in Euros according to the statutes regulation of the UEMS.

The Treasurer and one more nominated person by the Executive Committee are the authorised users of the account.

The Treasurer and the second nominated user of the account have to present at the annual meeting of the Working Group a signed report of the account as well as copies of the bank statements of the account.

The Treasurer and the second nominated user must also forward each annual report to the Treasurer of the Section of Surgery of the UEMS and the EBS.
8. Funds

The national scientific societies and/or the official national organisations and/or professional organisations shall be responsible for the travel and accommodation expenses to enable its representative to attend the meetings.

9. Board of MIS Surgery

9.1. The "Working Group of MIS" shall create a "Board of MIS" that will be entrusted with the problems of training, EBSQ Board Examination, Continuing Medical Education (CME), Continuous Professional Development (CPD) and quality management for the accreditation of MIS surgeons and specialised organisational structures (e.g. Department for MIS Surgery).

9.2. The Board will have the responsibility to develop the necessary documents for defining the "transferable competency" of MIS by developing a syllabus including the content of training and learning outcome in MIS, defining mandatory theoretical knowledge, practical and clinical skills (with a detailed catalogue of interventions, procedures and operations including provisional arrangements and compensatory rules), training requirements for recognition of trainers and training institutions and mechanisms for assessment and evaluation, all in cooperation with the EBS and following the standards and regulations provided by the EBS.

9.3. The Board will have the responsibility of organising the qualification process to be accredited as "Fellow of the European Board of Surgery /MIS" (F.E.B.S. /MIS) in cooperation with the EBS and following the standards and regulations provided by the EBS.

9.4. The Board shall implement all structures and processes for Eligibility and Examination quality management including the creation of an Eligibility Committee, an Examination Committee and a Credentials Committee following the regulations by the EBS.

The Board qualification process for Fellowship shall undergo a regular external quality control process and audit as provided e.g. by the CESMA (Council of European Specialist Medical Examinations).

9.5. The Board Examination shall include a MCQ test and an OSCE circuit according to the provisions and standards provided by the EBS.

9.6. Visitation and accreditation of Training Centers shall be performed according to the UEMS provisions.

9.7. The Board will have the responsibility to substantially cooperate in the harmonisation and standardisation process of European surgical training.
10. Future Amendments

The Statutes as well as the EBS Fellowship qualification process (Eligibility I and Eligibility II) can be amended following relevant suggestion by a member of the "Working Group of MIS" and approval by 2/3 (two thirds) of the countries members which are represented at the time of the discussion of the amendment. For that 50% +1 of the countries members of the Working Group should be represented.

All amendments shall be in accordance with the EBS standards and regulations for the Fellowship qualification process.

Georg Bischof
Foundation Chairman, Working Group of MIS

Wolfgang Feil
President of the European Board of Surgery
STATUTES OF THE
BOARD OF MINIMAL INVASIVE SURGERY (MIS)

The UEMS invited its specialist sections with the formation of their own European Boards for their respective specialties.

Members shall be leading representatives of the national organisations and scientific societies representing their country on a professional, scientific and university basis.

The foundation shall be constituted in accordance with these statutes and the rules of procedure of UEMS and the specialist sections.

The European Boards shall provide fresh impetus for achieving high quality medicine and completing arrangements for the free movement of specialist doctors.

1. Introduction

The "European Board of MIS (EBMIS)" is created within the "Working Group of MIS" and in association with the "European Board of Surgery" (EBS) and the "Section of Surgery" of the UEMS.

The EBMIS is constituted in accordance with the statutes, declarations and rules of procedure of the UEMS.

The members of the EBMIS shall be elected from leading representatives of the national organisations and scientific societies of general surgery of UEMS full member countries on a professional, scientific and academic basis.

The EBMIS shall achieve its objectives by setting and recommending standards to the EBS and by encouraging health authorities, national and international scientific societies of general surgery to live up to such standards.

2. Objectives

The main objective is to guarantee to the patients the highest standards of care in the field of Minimal Invasive Surgery in the countries of the European Union (EU) by ensuring that the training of the general surgeon is raised and maintained to the highest possible level. This shall be achieved by the following means:

The EBMIS shall assess and report to the "Working Group of MIS", the EBS and the Section of Surgery the current contents and quality of training in general surgery in the different countries of the EU.
The EBMIS shall define the contents of training of general surgeons (syllabus, log-book) and standards for training programs and shall implement mechanisms for the maintenance of these standards.

The EBMIS shall define the requirements to which the training institutions and teachers in general surgery should conform. Based on the agreement of participating institutions, requirements can be subjected to site-visit control.

After appropriate assessment of eligible candidates the EBMIS shall recommend to the EBS the issuance of an European Board Fellowship in MIS.

Assessment of the quality of training of general surgeons may take place at his/her request according to the different criteria laid down by the EBMIS.

The EBMIS shall facilitate the exchange of general surgical trainees between the training centers of the various countries of the EU to enable a better harmonisation and quality of training.

The EBMIS shall establish criteria of evaluation in Continuing Education.

Visitation and accreditation of Training Centers shall be performed according to the UEMS provisions.

The Board will have the responsibility to substantially cooperate in the harmonisation and standardisation process of European surgical training.

### 3. Accountability

The Executive Bureau of the UEMS shall officially communicate with the EBS through the "Section of Surgery" and the "Working Group of MIS".

The "Section of Surgery" and the Executive Bureau of the UEMS shall be entrusted with communicating all opinions issuing from the EBMIS and the "Working Group of MIS" to the competent UEMS bodies.

The "Working Group of MIS" shall submit through the "Section of Surgery" to the UEMS for ratification any changes to statutes relating to the membership and functioning of the EBMIS.

### 4. Board Composition and Members

The EBMIS shall consist of one or two representatives of each member state. One representative shall be a member of the national delegation to the "Working Group of MIS".

The Working Group can appoint an additional representative, after inviting nomination from the relevant national professional bodies.

The EBS shall nominate one or two of its members to attend meetings of the EBMIS. They may send substitutes. The scientific and/or professional societies of General Surgeons in the EU and representative organisations of general surgeons in training may be invited to nominate non-voting observers to attend meetings at the discretion of the Chairperson.
The Chairperson of the Management Committee may invite consulting experts in the context of its (their) activities, who have no voting rights.

The replacement of an EBMIS member or his/her substitute may be decided by the respective National Society by withdrawing the nomination to the EBMIS. The replacement must be indicated to the "Working Group of MIS". The term of representation will be 4 years and will be renewable. The terms of the 2\textsuperscript{nd} representative of a country follow the same scheme but will stagger with the terms of the 1\textsuperscript{st} representative.

5. Management Committee

A Management Committee will be elected amongst the EBMIS members. The latter is composed of a Chairperson and Vice-Chairperson. The Treasurer and Secretary are the same as those in the "Working Group of MIS".

The President of the European Board of Surgery shall be member of the Management Committee with full voting rights.

The Management Committee shall communicate with the General Secretary of the UEMS, the Section and Board of Surgery and the "Working Group of MIS" who shall be informed of the activities of the EBMIS as prescribed in the Statutes of the UEMS (minutes of plenary meetings decisions taken, all changes in the membership of the Boards, changes in Management Committee, etc.).

Duration of terms of office of the Management Committee: The Chairperson, the Vice-Chairperson shall remain in office for 4 years and the terms are renewable.

6. Funds

The funds of the Board shall be acquired by: contributions of the national associations and societies of general surgery - subsidies and donations - gifts, institutes of heir and legacies - other legal benefits - fees for European Board of Surgery Qualifications (EBSQ) assessments.

7. Meetings of Board Members

A session is held at least once a year in conjunction with the session of the "Working Group of MIS". Additional meetings may be convened by the Management Committee, in agreement with or at the instigation of the UEMS "Working Group of MIS".

The agenda consists of items proposed by members of the EBMIS, by the Management Committee, by the "Working Group of MIS"/Section of Surgery, by the EBS or by the UEMS Management Council or its Secretary General.

The agenda of the meeting shall be communicated to the EBMIS members at least one month before the meeting.

The minutes of the meetings, as well as all resolutions, recommendations, opinions, studies and other documents are to be sent after approval by the EBMIS to the Chairperson and the
members of the EBMIS, to the President and the members of the Working Group, to the Secretary of the Section of Surgery, the secretary of the EBS and to the UEMS Secretary General.

The Management Committee meets at least every six months. The meetings are convened by the Chairperson and/or the Secretary. The agenda and the relevant information are described to the Management Committee members.

In order to save time and money the meetings of the EBMIS should be held at the same time and location as the meetings of the Working Group of Minimal Invasive Surgery and the Section of Surgery. The agenda of these committees should be harmonised in advance to enhance effective project work.

8. Voting

Each country represented on the EBMIS has one vote. The EBS also has a single vote. Representatives of a UEMS associated or observer countries have a consultative voice only.

9. Board Examination and Fellowship

The "European Board of MIS (EBMIS)" within the "Working Group of MIS" is entrusted with the problems of training, EBSQ Board Examination, Continuing Medical Education (CME), Continuous Professional Development (CPD) and quality management for the accreditation of MIS surgeons and specialized organisational structures (e.g. Department for MIS).

The Board will have the responsibility to develop the necessary documents for defining the "transferable competency" of MIS by developing a syllabus including the content of training and learning outcome in MIS, defining mandatory theoretical knowledge, practical and clinical skills (with a detailed catalogue of interventions, procedures and operations including provisional arrangements and compensatory rules), training requirements for recognition of trainers and training institutions and mechanisms for assessment and evaluation, all in cooperation with the EBS and following the standards and regulations provided by the EBS.

The Board will have the responsibility of organising the qualification process to be accredited as "Fellow of the European Board of Surgery /Minimal Invasive Surgery(F.E.B.S./MIS) in cooperation with the EBS and following the standards and regulation provided by the EBS.

The Board shall implement all structures and processes for Eligibility and Examination quality management including the creation of an "Eligibility Committee", an "Examination Committee" and a "Credentials Committee" following the regulations by the EBS.

The Board qualification process for Fellowship shall undergo a regular external quality control process and audit as provided e.g. by the CESMA (Council of European Specialist Medical Examinations).

The Board Examination shall include a MCQ test and an OSCE circuit according to the provisions and standards provided by the EBS.
9. Committees

The EBMIS can designate committees, charged of the study and presentation of proposals concerning specific objectives of the EBMIS, always in accordance to the UEMS statutes and rules of procedure.

The committee(s) shall relate to the Management Committee.

10. Future Amendments

The Statutes as well as the EBSQ Certification Process (Eligibility I and Eligibility II) can be amended following relevant suggestion by a member of the Working Group and approval by 2/3 (two thirds) of the countries members which are represented at the time of the discussion of the amendment. For that 50% +1 of the countries members of the Working Group should be represented.

All amendments shall be in accordance with the EBS standards and regulations for the Fellowship qualification process.

Georg Bischof
Foundation Chairman, Working Group of MIS

Wolfgang Feil
President of the European Board of Surgery
MINIMAL INVASIVE SURGERY (MIS)

DEFINITION

Minimal Invasive Surgery (MIS) is a "transferable competency" which requires the acquisition of "Knowledge" in basic sciences required in the development of clinical and operative skills as well as specialised "Knowledge and Skills" in managing congenital and acquired diseases and injuries of most organ systems, which are treated by operative and other interventions.

The "transferable competency" MIS covers acute and nonacute diseases and injuries and acute and elective procedures in patients of all ages.

It provides for the operative and non-operative management, i.e. prevention, diagnosis, evaluation, decision making, treatment, intensive care and rehabilitation of patients with pathological processes that affect these organs including the management of pain.

It also involves the necessary knowledge and expertise leading to referral to specialised centers when this is indicated and possible, and where this is not possible because of time or geographical considerations, to possess the multi-specialty skills to carry out these interventions safely.

Minimal Invasive Surgery (MIS) cooperates with other surgical specialties, e.g. anesthesia, intensive care, emergency medicine, radiology, neurology, pediatrics, internal medicine, geriatrics, rehabilitation medicine, obstetrics and gynecology and pharmacy in the management of patients.

The surgeon must have acquired and must maintain specialised "Knowledge" and "Knowledge and Skills" (precisely defined in an additional catalogue) relating to the diagnosis, preoperative, operative and postoperative management in the following areas of primary responsibility:

- Abdominal wall and abdominal organs, including vascular, endocrine, congenital and oncological disorders
- Alimentary tract,
- Thoracic wall and organs,
- Minimal invasive surgery, especially laparoscopic and thoracoscopic procedures
- Head and neck
- Surgical oncology, including coordinated multidisciplinary management of the cancer patient,
- Diaphragmatic surgery, including diagnosis and surgery for hiatal hernia and reflux disorders
- Bariatric surgery, including diagnosis, indications and procedures
- Comprehensive management of trauma, especially to abdominal organs.
Care of critically ill patients with underlying conditions including coordinated multidisciplinary management,

- Rigid and flexible endoscopy of alimentary tract, diagnostic and therapeutic,
- Methods for gastrointestinal function diagnosis, especially manometry, pH-metry and anorectal function diagnosis
- Diagnostic and interventional radiology and sonography.

The focus is on diagnosis and treatment. Diagnosis and treatment comprises all non-instrumental and instrumental techniques including flexible endoscopy, radiology, sonography, computer tomography and magnetic resonance imaging.

The MIS surgeon must be capable of employing endoscopic techniques both for diagnostic and therapeutic purposes and must have the opportunity to gain knowledge and experience of evolving technological methods.

The MIS surgeon must be also capable of interpreting all types of surgery-related radiological examinations.

The MIS surgical activity covers the pre-, peri- and postoperative period and follow-up of patients. The specialty also includes individual and general preventive activities, rehabilitation, palliation and management of pain, especially in oncologic patients.

The "transferable competency" MIS particularly focuses on managing diseases and injuries of the esophagus, stomach, intestines, rectum and pelvic floor, abdominal wall, biliary tract, liver, spleen and pancreas, thyroid gland, parathyroid gland, adrenal glands.

The "Knowledge" and "Knowledge and Skills" required by Minimal Invasive Surgery (MIS) are closely related to other specialities and MIS surgeons collaborate with all other surgical specialities and a variety of non-surgical specialties like e.g. anaesthesia, intensive care medicine, emergency medicine, radiology, neurology, paediatrics, internal medicine, geriatrics, rehabilitation medicine, urology and gynecology and obstetrics.

Minimal Invasive Surgery (MIS) is often performed in specialised centers, especially in oncological cases. When transferral is not possible because of time or geographical considerations, the MIS surgeon should possess the multi-specialty knowledge and skills to carry out these interventions safely.

Additionally, MIS surgeons are expected to have a knowledge of anatomy, physiology and biochemistry which enable them to understand the effects of common surgical disease and injuries upon the normal structure and function of the various systems of the body. They are expected to have a knowledge of cell biology which enable them to understand normal and disordered function of tissues and organs. They should have an understanding of the pathogenesis of the common correctable congenital abnormalities. They are expected to know the actions and toxic effects of drugs commonly used in perioperative and intraoperative care and in the management of critically ill surgical patients. They must also have an understanding of general pathology including the principles of immunology and microbiology in relation to surgical practice.
The MIS surgeon should have certified knowledge in basic technology of the used instruments, especially insufflation devices, monitors, cameras and light sources, ultrasound- and other energy-driven instruments and stapling and fixation devices.

The MIS 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 of further training in another related specialty.

Georg Bischof
Foundation Chairman, Working Group of MIS

Wolfgang Feil
President of the European Board of Surgery
MINIMAL INVASIVE SURGERY (MIS) 
SYLLABUS - KNOWLEDGE

The Minimal Invasive Surgery (MIS) syllabus comprehensively describes "Knowledge" and "Knowledge and Skills" (= basis for an individual "Log-book") mandatory for the qualification as F.E.B.S./MIS.

The syllabus is at this time not a complete curriculum that gives a structured educational plan but provides a crude orientation and a framework around which preparation for the qualification as F.E.B.S./MIS can be structured.

The syllabus should not be viewed as static but will be continuously revised and updated by the members of the committee. 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. New topics will be introduced and obsolete topics may be deleted. The candidates are expected to update their level according to the recent surgical practice and scientific literature.

To achieve the qualification as F.E.B.S./MIS "Knowledge" have to be documented and provided for Eligibility and are assessed by Examination.

"Knowledge and Skills" have to be documented and proved in the log-book for Eligibility and may be additionally assessed by examination. For pragmatical reasons the individual log-books are scrutinized in the Eligibility process taking into consideration the various national requirements and local situations.

By that provisional arrangements are provided: if e.g. "flexible endoscopy" is not part of MIS in a distinct country, the candidate may omit this section in "Knowledge and Skills" without consequences for the Eligibility process, but approval of "Knowledge" in e.g. "flexible endoscopy" will be mandatory for the Examination. This procedure is also valid for e.g. "bariatric surgery" or "pancreatic surgery" and others.

The MIS surgeon is an expert in performing various surgical interventions in the abdominal and thoracic cavity through minimal access. Due to the wide range of indications and procedures encompassed in this field, it is essential for the MIS specialist to undergo continuing medical education and technological training. Besides preoperative work-up and selection of patients the successful MIS procedure strongly depends on safely and optimally placed entry trocars to access the operative field.

In the major field of hernia surgery it is important to have knowledge in mesh types and structures as well as fixation devices.

Gallbladder removal in chronic and acute stages is a domain of MIS and should be safely achieved in >90% of unselected cases. Intraoperative access to radiologic examinations (cholangiography) must be provided by the surgical team also in the acute situation.
The MIS surgeon and the team have to be trained in managing intraoperative bleeding situations and in rapid conversions to open surgery. Basic training facilities (black box, pelvi-trainer) have to be accessible in specialized MIS units/departments.

Videodocumentation of MIS procedures is an essential prerequisite for training, certification and quality control in surgical units performing MIS operations.

(Video) Endoscopy is another integral part of planning and performing laparoscopic/thoracoscopic interventions, increasingly more often done synchronously as combined access procedures.

Eligibility for "MIS centers" is usually defined by national surgical societies referring to number of procedures/endoscopies per year, number of specialized surgeons, adequate documentation, education and quality control.

If malignant diseases are treated by MIS it is essential for the MIS surgeon to cooperate with a multi-disciplinary team ("Onco-Board") in order to guarantee optimal oncological outcome.

**Knowledge**

The specialty of Minimal Invasive Surgery requires documented and assessed knowledge in:

**Preoperative Management**
- Physical examination
- Exact information on previous operations including mesh or other implants
- Tests of respiratory, cardiac, renal and endocrine function
- Patient information and documentation of informed consent
- Prophylaxis of thromboembolic disease
- Assessment of fitness for anaesthesia and surgery
- Premedication and sedation

**Intraoperative Care**
- Patient positioning (including extreme anti-Trendelenburg and other positions)
- Prevention of nerve and other injuries in the anaesthetised patient
- Principles of general and regional anaesthesia

**Postoperative Management**
- Pain control
- Post-operative monitoring
- Post-operative complications
- Prevention, recognition and management of complications
- Respiratory failure-recognition and treatment
- Nutritional support-indications, techniques, total parenteral nutrition
Basic Minimal Invasive Surgical Technique and Technology

- Patients' positioning
- Surgical instruments and technical OR equipment for open access
- Instruments and technical equipment for MIS (especially cameras, light sources, insufflators, energy devices)
- Patient selection and indications for MIS
- Techniques of establishing access for MIS (e.g. laparoscopy, SILS, NOTES, thoracoscopy)
- Detection and treatment of MIS complications
- Trocar placement and closure techniques
- Suturing and stapling in MIS
- Mechanical stapling devices and techniques of stapled anastomoses
- Surgical meshes
- Diathermy-principles and precautions
- Explosion hazards relating to general anaesthesia and endoscopic surgery

Procedures

- Diagnostic Laparoscopy (including biopsy of peritoneal pathologies)
- Thoracoscopy (including biopsy and drainage)

Thoracic

- The role of surgery in the treatment of cardiac, lung and oesophageal disease
- Thoracocentesis, chest drainage
- Techniques of thoracotomy
- thoracoscopy
- Empyema thoracis
- Pneumothorax

Conditions

- Pneumothorax
- Hemothorax
- Pleural effusion/empyema
- Focal hyperhidrosis

Procedures

- Chest tube placement
- Thoracoscopy with or without biopsy
- Thorascoposcopic pleurodesis
- Sympathetic nerve surgery
- Thorascoposcopic lung wedge resection
**Abdomen - General**

**Conditions**
- Acute abdominal pain
- Intra-abdominal abscess
- Mesenteric cyst
- Chronic abdominal pain
- Carcinomatosis
- Pseudomyxoma peritonei
- Spontaneous bacterial peritonitis
- Desmoid tumors
- Chylous ascites
- Retroperitoneal fibrosis

**Procedures**
- Laparoscopic exploratory laparotomy
- Laparoscopic drainage abdominal abscess
- Laparoscopic retroperitoneal lymph node dissection

**Abdominal Wall and Alimentary Tract**

The surgical anatomy of the abdomen and its viscera and the applied physiology of the alimentary system, relevant to clinical examination, to the interpretation of special investigations, to the understanding of disorders of function and to the treatment of abdominal disease.

**Hernia**

- Principles of standard and tension-free hernia repair
- Principles of hernia repair with/without surgical meshes

**Conditions**
- Inguinal hernia
- Femoral hernia
- Ventral hernia
- Incisional hernia
- Miscellaneous hernias

**Procedures**
- Laparoscopic repair of inguinal and femoral hernia
- Laparoscopic repair of ventral/incisional hernia
- Repair of miscellaneous hernias
- Component separation and abdominal wall reconstruction
**Biliary Tract**

**Conditions**
- Cholecystitis
- Gallbladder stones
- Cancer of the bile ducts
- Gallstone ileus
- Iatrogenic bile duct injury
- Biliary pancreatitis

**Procedures**
- Laparoscopic cholecystectomy
- Laparoscopic cholangiography
- Laparoscopic common bile duct exploration
- Laparoscopic and open revisional surgery (e.g. for bile leak, bleeding)

**Liver**

**Conditions**
- Liver mass – evaluation
- Hepatic abscess
- Hepatic adenoma
- Focal nodular hyperplasia
- Hemangioma
- Hepatocellular carcinoma
- Cholangiocarcinoma
- Metastatic tumors
- Benign Liver cysts

**Procedures**
- Laparoscopic liver biopsy
- Laparoscopic unroofing of liver cyst
- Drainage of liver abscess
- Laparoscopic segmentectomy/lobectomy (in specialized centers)
- Intraoperative ultrasound of liver (in specialized centers)
**Endocrine**

The surgical anatomy, applied physiology and pathology of the endocrine glands relevant to clinical examination, to the interpretation of special investigations, to the understanding of disordered function and to the principles of surgical treatment of common endocrine disorders.

**Conditions**
- Incidental adrenal mass
- Pheochromocytoma
- Primary hyperaldosteronism
- Cushing’s syndrome
- Cushing’s disease
- Adrenocortical carcinoma

**Procedures**
- Laparoscopic adrenalectomy

**Metabolic and Bariatric Surgery**

- Principles of metabolic and bariatric surgery
- Patient selection and indication for bariatric surgery
- Surgical techniques in bariatric surgery
- Detection and treatment of complications

**Procedures**
- Laparoscopic gastric banding
- Sleeve gastrectomy
- Gastric bypass
- Others

**Pancreas**

**Conditions**
- Pancreatic abscess and infected necrosis
- Pancreatic pseudocyst
- Cystic neoplasms
- Intraductal papillary mucinous neoplasms
- Gastrinoma and Zollinger-Ellison syndrome
- Insulinoma, VIPoma, Glucagonoma and Somatostatinoma
- Nonfunctional endocrine tumors
- Lymphoma of pancreas
Procedures
- Laparoscopic/endoscopic pancreatic debridement for necrosis
- Distal pancreatectomy
- Intraoperative pancreatic ultrasound
- Drainage pancreatic pseudocyst

Spleen
Conditions
- Hemolytic anemias
- Idiopathic thrombocytopenic purpura
- Secondary hypersplenism and splenomegaly
- Neoplasms of spleen
- Splenic cysts

Procedures
- Laparoscopic splenectomy
- Partial splenectomy/splenorrhaphy

Esophagus
Conditions
- Zenker’s diverticulum
- Epiphrenic diverticulum
- Hiatal hernia
- Gastroesophageal reflux and Barrett’s esophagus
- Dysphagia
- Schatzki’s ring
- Achalasia
- Nutcracker esophagus
- Spontaneous esophageal perforation
- Iatrogenic esophageal perforation
- Scleroderma connective tissue disorders
- Benign neoplasms
- Adenocarcinoma
- Squamous cell carcinoma

Procedures
- Diagnosis of gastroesophageal reflux (e.g. pH-metry)
- Diagnosis of esophageal and gastric motility disorders (e.g. manometry)
- Laparoscopic antireflux procedure
- Laparoscopic repair of paraesophageal hernia
Repair/resection of perforated esophagus
Total esophagectomy (in specialized centers)
Esophagogastrectomy (in specialized centers)
Enoral stapling-myotomy of Zenker’s diverticulum
Laparoscopic Heller myotomy
Collis gastroplasty

Stomach

Conditions
- Upside down stomach
- Upper gastrointestinal bleeding
- Gastric carcinoma
- Duodenal ulcer
- Gastric ulcer
- Peptic ulcer disease with bleeding, perforation or obstruction
- Gastric polyps
- Gastric lymphoma
- Gastric carcinoid tumor
- Morbid obesity

Procedures
- Laparoscopic gastric resection
- Repair of duodenal perforation
- Truncal and selective proximal vagotomy
- Pyloroplasty

Jejunum & Ileum

Conditions
- Small bowel obstruction and ileus
- management of Crohn’s disease of small intestine
- Meckel’s diverticulum
- Small intestinal polyps
- Small intestinal adenocarcinoma
- Small intestinal lymphoma
- Small intestinal carcinoid tumor
- Small intestinal GISTs

Procedures
- Laparoscopic small bowel resection
- laparoscopic adhesiolysis
- laparoscopic feeding jejunostomy
- Resection and stricturoplasty for Crohn's disease

**Colon & Rectum**

**Conditions**
- Acute and chronic appendicitis
- Diverticulitis
- Colonic polyps
- Colonic and rectal cancer
- Miscellaneous colonic neoplasms
- Appendiceal neoplasms
- Crohn's disease
- Ulcerative colitis
- Endometriosis
- Functional constipation
- Rectal prolapse and intussusception

**Procedures**
- laparoscopic appendectomy
- laparoscopic colon and rectum resection
- anastomosis (extra- and intracorporeal)
- diverting colostomy
- laparoscopic (resection) rectopexy (suture, mesh)

**Anorectal**

**Conditions**
- Rectal polyps/neoplasms
- Rectal prolapse
- Fecal incontinence and fecal outlet obstruction

**Procedures**
- Transanal endoscopic microsurgery (TEM)
- laparoscopic transabdominal operation for rectal prolapse
Flexible Endoscopy

- Handling of endoscopes and hygienic measures

Procedures

- Flexible diagnostic esophago-gastro-duodenoscopy
- Rigid and flexible diagnostic procto-colonoscopy
- Interventional endoscopy (e.g. stenting, dilatation, polypectomy, mucosectomy)

Trauma

Conditions

- Hypovolemic shock
- Septic, cardiogenic, anaphylactic and neurogenic shock
- Coagulopathy
- Neurologic dysfunction
- Endocrine dysfunction
- Pneumonia – hospital acquired
- Single organ failure (heart, liver, kidney)
- Multiple system organ failure (pathophysiology and treatment)
- Respiratory failure-pulmonary oedema “shock lung”, adult respiratory distress syndrome, lobar and pulmonary collapse
- Pulmonary embolism
- Peritonitis
- Acute necrotizing pancreatitis
- Septic inflammatory response syndrome
- Common acute abdominal emergencies (ileus, perforation, bleeding)
- Acute gastrointestinal haemorrhage
- Acute renal failure in surgical patients

Procedures

- Focused assessment with sonography and CT (FAST scan)
- Explorative laparoscopy
- Management of esophageal and gastrointestinal trauma
- Splenectomy/splenorrhaphy
- Repair of hepatic lacerations and hepatic resection for trauma
- Repair of intestinal lacerations
Evaluation & Quality Control

- Decision-making in surgery
- Clinical audit
- Statistics and computing in surgery
- Documentation
- Principles of research and design and analysis of clinical trials
- Critical evaluation of innovations-technical and pharmaceutical
- Principles and pharmacology of intravenous drug delivery
- Quality control and quality management
- CIRS (Critical Incident Reporting System)
- Implementation of clinical studies
- Legal aspects
- Communication with patients, relatives and colleagues
MINIMAL INVASIVE SURGERY (MIS)
KNOWLEDGE AND SKILLS

The "transferable competency" of Minmal Invasive Surgery (MIS) requires assessed and documented numbers for "Knowledge and Skills". Candidates for the qualification must demonstrate Skills in each of the above areas of responsibility and be able to present a complete and signed log-book.

The candidates' individual log-books have to fulfill the UEMS criteria. In the logbook for each item patient's initials (or hospital admission number), type of procedure, date of procedure and approval with signature by independent expert have to be provided.

The individual log-books for the categories A, B and C are scrutinized in the Eligibility process.

The minimal Eligibility requirement for a UEMS MIS qualification is a proved number of 1500 credit points for interventions and/or procedures, endoscopies and operations (categories A + B + C).

For each intervention/endoscopy/operation performed by the candidate as principle surgeon (the principle surgeon is the person who performs the majority of the essential steps of the procedure) 2 credit points are given. For each intervention/endoscopy/operation performed by the candidate as first assistant of a recognised expert 1 credit point is given.

At least 50% of the total number of 1500 credit points (c.p.) have to be achieved as principle surgeon. This means, that a total of 750 interventions/procedures/endoscopies/operations (categories A + B + C) are the minimum requirement, when they are all performed as principle surgeon:

<table>
<thead>
<tr>
<th>A. Interventions, Procedures</th>
<th>n=100</th>
<th>200 c.p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Endoscopies</td>
<td>n=150</td>
<td>300 c.p.</td>
</tr>
<tr>
<td>C. Operations (total)</td>
<td>n=500</td>
<td>1000 c.p.</td>
</tr>
<tr>
<td>Thorax</td>
<td>n=50</td>
<td></td>
</tr>
<tr>
<td>Abdomen</td>
<td>n=450</td>
<td></td>
</tr>
</tbody>
</table>

For pragmatic reasons provisional arrangements are provided (see below: "Provisional arrangements") to enhance the qualification until complete European harmonisation of surgical training is achieved.

These provisional arrangements allow a range of different compensations to consider various national and/or individual peculiarities.
SOP: Provisional Arrangements

Category A and B: The 60% rule

The total number of 200/300 credit points for the Categories A and B resp. is mandatory. Within the Categories A and B at least 60% for each item (e.g. 15 cholangiographies) have to be reached. Numeric deficits in one or more items have to be compensated by higher numbers in other items in order to reach the total minimum n=200/300 credit points for each category.

Category C: The 75% Rule

The total number of 1000 credit points (category C) is mandatory. Within the 2 subcategories the particular total number has to be reached at least to 75%. Numeric deficits in one or more subcategories have to be compensated by higher numbers in other groups in order to reach the total minimum n=1000 credit points.

Category A: Interventions & Procedures

If the candidate is not able to present a detailed log-book on category A "Interventions and Procedures" a formal confirmation signed by 2 independent experts about the candidates experience in this category may be accepted. In this case the minimum number (n=200 credit points) for category A has to be added to category C in order to reach total n=1500 credit points.

Category B: Flexible Endoscopy

If flexible endoscopy is not performed by the MIS Surgeon in a specific country, category B may be omitted for the individual candidate. In this case the minimum number (n=300 credit points) for category B has to be added to category C in order to reach total n=1500 credit points.
## Catalogue of Interventions, Procedures, Endoscopies & Operations

<table>
<thead>
<tr>
<th>Category A: Interventions, Procedures</th>
<th>n=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Radiological examination of thorax or abdomen (e.g. preoperative assessment and strategy plan, angiography, intraoperatively)</td>
<td>n=25</td>
</tr>
<tr>
<td>2. Abdominal sonographies</td>
<td>n=30</td>
</tr>
<tr>
<td>3. Punctures, biopsies and/or drainages of solid and /or hollow organs, cavities and/ or fluid retentions with or without sonographic or CT guided assistance (e.g. thoracic drainage)</td>
<td>n=30</td>
</tr>
<tr>
<td>4. Intraoperative cholangiography</td>
<td>n=15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category B: Endoscopy</th>
<th>n=150</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flexible esophagastroduodenoscopy</td>
<td>n=50</td>
</tr>
<tr>
<td>2. Flexible colonoscopy</td>
<td>n=50</td>
</tr>
<tr>
<td>3. Flexible bronchoscopy</td>
<td>n=10</td>
</tr>
<tr>
<td>4. Endoscopic interventions (snare polypectomy, bleeding control, clip application, intraluminal stent, dilatation)</td>
<td>n=40</td>
</tr>
</tbody>
</table>
### Category C: Operations

<table>
<thead>
<tr>
<th>1. Thorax/Neck</th>
<th>n=500</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Thoracoscopic operations of lung/pleura (e.g. wedge resection, pleura biopsy, decortication, pleurodesis)</td>
<td>n=25</td>
</tr>
<tr>
<td>B. Misc. (e.g. ETS - Endoscopic Transthoracic Sympathectomy, enoral stapling/treatment of Zenker’s diverticulum, esophageal surgery)</td>
<td>n=25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Abdomen</th>
<th>n=450</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. General abdominal (e.g. Laparoscopy – diagnostic and therapeutic, biopsy, adhesiolysis, appendicectomy, intestinal obstruction)</td>
<td>n=100</td>
</tr>
<tr>
<td>B. Esophagus &amp; Stomach (e.g. gastric resection, gastroenteroanastomosis, closure of perforation, pyloroplasty, gastrostomy, bariatric procedures, hiatal hernia, antireflux procedures)</td>
<td>n=80</td>
</tr>
<tr>
<td>C. Hepato-Biliary (e.g. Cholecystectomy, bile duct revision, choledochojejunostomy, hepatic resection, biopsy, unroofing of liver cysts)</td>
<td>n=100</td>
</tr>
<tr>
<td>D. Pancreas, spleen, adrenal gland (e.g. debridement, biopsy, organ injury, resection)</td>
<td>n=20</td>
</tr>
<tr>
<td>E. Small bowel (e.g. resection, jejunostomy, ileostomy, Meckel diverticulum)</td>
<td>n=20</td>
</tr>
<tr>
<td>F. Large bowel (e.g. colon and rectal resection, colostomy, suture and resection rectopexy, anastomosis)</td>
<td>n=60</td>
</tr>
<tr>
<td>G. Anorectal (e.g. TEM - Transanal Endoscopic Microsurgery, TAMIS)</td>
<td>n=20</td>
</tr>
<tr>
<td>H. Hernia (e.g. inguinal hernia, incisional hernia)</td>
<td>n=50</td>
</tr>
</tbody>
</table>

The catalogue may be revised anytime according to UEMS decisions.

Georg Bischof  
Foundation Chairman, Working Group of MIS

Wolfgang Feil  
President of the European Board of Surgery
MINIMAL INVASIVE SURGERY (MIS)
BOARD EXAMINATION ELIGIBILITY CRITERIA 2015

To apply for certification as F.E.B.S./MIS (Fellow of the European Board of Surgery – Minimal Invasive Surgery) a candidate has to undergo a two-step quality validation process: Eligibility and Examination. Eligibility is a prerequisite for the Examination.

To apply for Eligibility the candidate must fulfill the following requirements:

1. Eligibility for all exams run by the divisions of the European Board of Surgery is open for candidates trained in one of the 28 European Union countries, a UEMS country (Iceland, Norway and Switzerland) or an associated UEMS country or a country with UEMS observer status.
2. Eligibility for all exams run by the divisions of the European Board of Surgery is also open to those candidates trained outside the UEMS-area provided that the relevant division is satisfied with the training and qualifications are equivalent.
3. The candidate must be able to communicate in the English language. Examinations in the local national language(s) will be additionally provided at the discretion of the executive. A national CCST is not a prerequisite.
4. The candidate must provide a defined LogBook countersigned by an independent expert on every page. The LogBook must include general information (surgeon, hospital) and for any item the type of procedure and patient initials or hospital admission number (no information that allows identification of the patients’ names). The content of the mandatory LogBook (minimum: 1500 credit points) is published in "General Surgery – Knowledges and Skills".
5. A candidate's individual LogBook with comparable layout and structure may be accepted for the Eligibility process on the decision of the committee. In any case the "LogBook Summary" in the EBSQ form is mandatory (the corresponding ECXEL file can be downloaded; in the table "Summary" the formulas for the automatic calculation are already provided)
6. The candidate must have a total of 25 credit points based on the following criteria:
   - Participation at recognized international congress (4 points)
   - Participation at recognized international congress and first authorship (8 points)
   - Participation national congress (2 points)
   - Participation at national congress and first authorship (4 points)
   - Participation at relevant International Postgraduate Course (6 points)
7. Candidates have to be recommended by 2 independent experts. One of the experts has to work in another country than the candidate.

8. Candidates are required to pay the fees for Eligibility (Euro 350,00) and - if accepted - a further Euro 350,00 to cover the Examination to the EBSQ Administration Office. The Eligibility sum is to cover the costs associated with the processing of returned application forms by the central EBSQ office and are non refundable.

9. All payments must be effected by the required deadlines and there are no refunds for (Eligibility) candidates who are deemed ineligible to sit for the EBSQ Gen Surg examination or do not succeed in passing the Examination. In the event that a candidate has paid for the Examination and does not attend the examination there will be no refund.

10. Reapplication is possible for Eligibility and/or Examination.

11. Successful EBSQ MIS Eligibility and Examination candidates are awarded the title "Fellow of the European Board of Surgery /MIS – F.E.B.S./MIS".

The UEMS fellowship (F.E.B.S.) represents a high-level validated quality control process and reflects certain knowledges and skills of a candidate.

The title F.E.B.S./MIS determines, that the person successfully proved to have validated knowledges and skills, that in most cases by far exceed the requirements for the national CCSTs and allow him/her to successfully cover the broad field of MIS in respective to the actual demandings according to the judging of the commission.

In the moment the qualification F.E.B.S./MIS has no automatic legal recognition in the E.U. or in any other country. Individual recognition of qualifications by the national authorities is supported by the EBSQ committee and the number of countries officially adopting the Board exam is continuously rising.

The fellowship does not implicate automatic allowance to work at own responsibility and does not automatically enhance participation in national social security systems of the E.U.

The future perspective of this European diploma is to been seen in unanimous legalization within the ongoing project of the European harmonization process of medical education.

Georg Bischof
Foundation Chairman, Working Group of MIS

Wolfgang Feil
President of the European Board of Surgery
EBSQ APPLICATION FORM

FAMILY NAME ........................................................................................................................................

FIRST NAMES ............................................................................................................................

NATIONALITY ............................................................................................................................

DATE/PLACE OF BIRTH ..............................................................................................................

ADDRESS FOR CORRESPONDENCE:
..................................................................................................................................................
..................................................................................................................................................

TELEPHONE  .............................................. FAX..............................................................

Email address ..............................................................................................................................

PRESENT APPOINTMENT:
TITLE .............................................................................................................................................

DEPARTMENT ............................................................................................................................

ADDRESS .....................................................................................................................................

..................................................................................................................................................

DOCUMENTS ENCLOSED
Verified and signed documents following the UEMS Division of MIS criteria are enclosed.

• 25 credit points (based on Eligibility criteria)
• LogBook (based on Eligibility criteria)
• LogBook Summary
• 2 recommendations
• Eligibility fee paid

SIGNATURE  .............................................. DATE..........................................................

Document: ELIGIBILITY CRITERIA MIS.DOCX  page 3 of 4  21.03.2015
DECLARATION BY APPLICANT

I wish to apply for Eligibility of the European Board of Surgery Qualification based upon assessment of my training experience. I declare that all information provided in support of my application is correct.

SIGNATURE ........................................... DATE...........................................

DECLARATION BY TRAINER 1

I have scrutinised this application and declare that to the best of my knowledge the information provided by the candidate concerning his/her training experience is correct.

SIGNATURE ........................................... 

PRINT NAME ........................................... DATE...........................................

POST HELD .................................................................

HOSPITAL ADDRESS ........................................................................................................

........................................................................................................................................

DECLARATION BY TRAINER 2

I have scrutinised this application and declare that to the best of my knowledge the information provided by the candidate concerning his/her training experience is correct.

SIGNATURE ...........................................

PRINT NAME ........................................... DATE...........................................

POST HELD .................................................................

HOSPITAL ADDRESS ........................................................................................................

........................................................................................................................................

Please return this form to:
Eligibility Office - European Board of Surgery Qualification (EBSQ)
Chairman: Professor Wolfgang Feil, M.D., M.A.S., F.A.C.S.
Berufsverband der Deutschen Chirurgen, Langenbeck-Virchow-Haus
Luisenstrasse 58/59
D-10117 Berlin
Tel: +49(0)30-2800 4100 - Fax: +49(0)30-2800 4109 - E-mail: mail@bdc.de
MINIMAL INVASIVE SURGERY (MIS)
BOARD EXAMINATION

The EBSQ MIS Examination (Board Exam) is subject of comprehensive revision and continuous development. The examination covers the whole field of General Surgery as defined in the relevant UEMS documents (www.uemssurg.org). This is conducted in cooperation with the relevant European authorities and fulfilling EU legislation and directives.

The evolving process of the Board Examinations is paralleled by the European ambition towards harmonization and standardisation of medical education, specialist training and qualification.

Frequency of Board Examination, location and language are subject of continuous development. In any case of language diversification the EBS makes certain, that the content of all questions and items will be identical.

The structure of the Board Qualification is clearly defined and consists of a 2-stage process involving the Eligibility and the Examination, the Examination comprising a MCQ test with at least 100 items and an OSCE circuit with at least 6 stations.

Date, Location & Language

The Board Exam takes place at least annually mainly in cooperation with surgical meetings, e.g. in collaboration with the congress of the European Society of Surgery or in cooperation with another scientific meeting. Dates will be announced on the Board website www.uemssurg.org.

Date, location and languages(s) of the Board Exam are to the discretion of the committee. This and further details about the next Board Exam(s) are published on the Board website.

The Board Exam is basically held in english. Upon special additional announcement the exam may also be offered in the national language of the country, where it is held. In that case, the content and the procedure of the Board Exam is identical in the provided languages.

In other cases the executive may offer the Board exam in english with interpretation support. Interpretation in the MCQ-test (see later) is on candidates's request and given to the whole audience to ensure equality.

Interpretation in the OSCE-circuit (see later) is only to reduce and overcome specific language difficulties for the candidates.
Examiners

The EBSQ Board of Examiners is supported by selected local representatives from the scientific societies and/or the national boards and authorities.

The Examination can be observed and monitored by non-medical experts to enhance quality control.

The EBS makes every effort to ensure that there are no conflicts of interest between examiners and candidates. The EBS verifies that candidates and examiners have never been at the same institution at the same time or have worked together in any venue.

The Board Examination consists of a MCQ test and an OSCE circuit.

The MCQ examination session is surveilled by the EBS examination executive and the scoring is done by the executive immediately after completion of the session.

In the OSCE circuit at least two examiners are used in each of the stations to assure the validity of the examination. At least one examiner will be an EBS examination executive and another will be an experienced EBS expert from the local regional medical community.

All examiners are surgeons in active practice and hold valid certificates. The examiners are carefully instructed to evaluate each candidate objectively. They have no knowledge of a candidate other than an anonymised ID sticker carrying a number produced for the examination and distributed randomly.

MCQ-Test

The MCQ test includes up to 150 questions, not less than 100 questions. The time frame for the MC test is 3-5 hours. This time frame includes transfer of the individual answer codes to the evaluation form.

In the MCQ session the candidates have to demonstrated sufficient knowledge of general surgery.

The MCQ-answers are selected by the committee from a catalogue respecting a numeric distribution following the "Blueprint MIS" categories.

The question items may include relevant pictures (e.g. graphs, photographs, radiological pictures).

4 types of questions are used for the MCQ-test:

- **Apos type**: (single answer out of 5 items, true)
- **Aneg type**: (single answer out of 5 items, false)
- **Kprim type**: (4 items, give true/false for each item)
- **E type**: (select between: 5 items: "+ because+", "+/+", "+/-", "/+", "/-/-")

About 70% of question are A type (Aneg below 20%), about 15% are Kprim and about 5% are E type.
The type of the question is clear from the structure, the wording and the number and expression of items. For each correct answer in A and E questions 2 points are given. Three correct answers in a Kprim question are given 1 point.

Sample questions are published on the website www.uemssurg.org.

**OSCE Circuit**

The purpose of the OSCE circuit is on process thinking and judgment and the focus is on decision making. The candidates are faced with cases and/or clinical pathways representing the breadth of general surgery. The circuit may include the evaluation of relevant manual skills (e.g. simulation).

The clinical pathways presented are structured beforehand and constitute common problems seen in general surgery practice. The cases follow real clinical situations; patients are anonymised.

In the OSCE circuit candidates should be able to answer not only what they would do and how, but why.

The circuit consists of a 6 stations (10 min each; total duration of circuit: 60 min) where candidates will be confronted with clinical situations.

Each candidate will visit each station where he/she will be assessed by an examiner and may be asked to give an oral or written answer respectively.

The circuit will include all types of laboratory investigations, x-rays, CT, MRI and ultrasonography scans and pictures from typical clinical situations to interpret.

The candidates may also be asked to demonstrate practical abilities.

The individual time schedule for the OSCE circuit is established after the MSQ-test (6 candidates per hour maximum). Candidates appear prior to their randomly assigned starting time. After finishing the OSCE circuit candidates have to collect and wait separated from pre-OSCE candidates until the last round of the circuit has commenced.

Sample stations are published on the website www.uemssurg.org.

In the OSCE listen carefully to each case presented, read all information thoroughly and respond with your own plan or actions to resolve it. The examiners want to find out what you would do in your own practice. Tell them what you would do, not what you think they may want you to say. Be prepared to defend your plans and actions with acceptable logic. If you honestly do not know anything about a problem, it is recommended that you say so. This will allow the examiners to proceed to other problems with which you may be more conversant.

In particular, the examiner will assess:

- Can the candidate recognise a basic problem?
- Can the candidate gather and analyse data relative to that problem in an efficient way?
Can the candidate use that data in an organized and logical fashion to arrive expeditiously at a diagnosis?

Can the candidate choose realistic, effective, and safe solutions (including nonoperative ones) to the problem?

If multiple options are available for treatment of a given problem, can the candidate evaluate these logically and efficiently, and choose the one that is optimal and least hazardous to the patient?

Can the candidate recognise the long-term risks/benefits of the solutions chosen?

Does the candidate react in a prompt but flexible manner to alterations in the patient's course, e.g., disease or treatment complications?

Does the candidate know the technical aspects of the procedures he or she will employ?

At the end of each OSCE circuit station, each examiner independently records a grade based on his or her evaluation of the candidate's performance.

S.O.P.

The candidates have to prove their identity (valid passport) at the Board exam venue. Mobile telephones, computers, tablets and other communication aids as well as all types of cheating are strictly forbidden as well as any type of written and/or printed material throughout the Board Exam. Cheating is subject to subsequent termination of the exam.

Prior to the exam the candidates are briefed and anonymised by the chairman or a representative of the executive. They draw numbers and receive stickers for the evaluation forms. The numbers reflect also the starting time for the OSCE circuit. A "Starting Grid" is provided locally.

The candidates stay anonymised during the whole examination process and also during evaluation. Personal data are synchronized after the evaluation process is concluded.

All documents for the exam are prepared and printed out previously. The evaluation forms with the candidates' stickers and the actual scoring are collected online after being signed by the 2 examiners from each station. The scoring is entered online by the chairman and the result calculated.

The result of the Board Exam is announced within 1 hour after the end of the last circuit.

Evaluation & Threshold

The EBS' decision regarding certification is not based upon any preset pass/fail rate, but solely upon the aggregate evaluation of the examiners.

A total of 600 points can be achieved in the Board Exam, 300 points in the MC test (2 or 1 points per question) and 300 points in the OSCE circuit (50 points per station).
When the MCQ test includes less than 150 questions or when questions may be excluded at the discretion of the Executive during the evaluation process for certain reasons, the number of individually achieved points is calculated to 300 points equal 100%, by that ensuring, that the MCQ test and the OSCE circuit are weighted equally.

The threshold for passing the exam is 75%, which means at least a total of 450 points.

After the examination the candidates are asked to fill out a feedback form. The evaluation of the feedback questionnaires will be published.

Appeals against the decision of the Board of Examiners are possible.

An unsuccessful candidate is entitled to another chance to take the exam that he/she failed.

The successful candidates (successful Eligibility and Examination) are awarded the title "Fellow of the European Board of Surgery – MIS" or "F.E.B.S./MIS" and are provided with the relevant Diploma normally the same day in a formal celebration.

The title F.E.B.S./MIS determines, that the person successfully proved to have validated knowledges and skills, that in most cases exceed the requirements for the national CCSTs and allow him/her to successfully cover the broad field of MIS in respective to the actual demandings according to the judging of the commission.

In the moment the qualification F.E.B.S./MIS has no automatic legal recognition in the E.U. or in any other country. Individual recognition of qualifications by the national authorities is supported by the EBSQ committee.

Individual recognition of qualifications by the national authorities is supported by the EBSQ committee and the number of countries officially adopting the Board exam is continuously rising.

The acceptance status of a Board Exam is published on the website www.uemssurg.org.
How to prepare?

The EBS believes that the best preparation for the examination is to "practice" taking MCQ tests and oral examinations. You should ask a colleague, preferably a board-certified surgeon, to question you in several sessions over a longer period. Practice not only the content of your answers, but focus on presenting your decisionmaking process in a clear, logical manner. Your trainer should probe deeply enough into your answers to make certain that you provide adequate information, and should critique your answers with regard to promptness, clarity, logic, and evidence of problem-solving ability.

Once you have passed the Eligibility and are registered for the Examination, you will be assigned an exact day, time and place for you to be present for a candidates' briefing. You may base your travel plans on this information. Your actual examination will take place in the afternoon of day 1 and morning of day 2 based on your briefing assignment. Assignment of candidates is done randomly, candidates may not request a specific date or time.

No books, papers, briefcases or electronic devices may be brought into the examination sessions. You will not need to take extra notes during the sessions.

The fellowship does not implicate automatic allowance to work at own responsibility and does not automatically enhance participation in national social security systems of the E.U.

The future perspective of this European diploma is to been seen in unanimous legalisation within the ongoing project of the European standardisation process of medical education.

Georg Bischof
Foundation Chairman, Working Group of MIS

Wolfgang Feil
President of the European Board of Surgery
MINIMAL INVASIVE SURGERY (MIS)
HONORARY DIPLOMA

The Fellowship (F.E.B.S.) provided by the European Board of Surgery is a relatively young qualification. By that it is understandable, that senior surgeons with undoubtedly significant experience in advanced positions will individually refrain from undergoing the Eligibility process and the Board Exam. Nevertheless they would proudly take the benefit from the qualification itself.

However, it is the purpose of the executive, to establish the Fellowship qualification as European standard. This lead to the decision to provide a "Honorary Diploma" for experienced surgeons.

Senior MIS surgeons in advanced position may apply for an Honorary Diploma of the European Board of Surgery (MIS).

Colleagues are eligible to apply only if they have a minimum of 10 consecutive years of practice and/or experience in formally recognised National Health Service or University posts.

- A complete application must include:
  - A cover letter highlighting the achievements of their career.
  - A complete updated CV
  - Letters from two peers of their choice who will explain in detail why they are in support of your application.
  - A photo (JPG or equivalent)
  - Payment of the application fee to the account attached (only via bank transfer).
    Note: it is the same account we use for the fees for the Exam.

Applications will then be reviewed by a subcommittee of the Division: three members, one from the Executive, one from the Country of the applicant and a third form a country different from that of the applicant.

The recommendation will then be presented to the executive, who will decide on approval or rejection.

Honorary fellows may apply to serve as examiners in future Board Exams or they may be invite to serve as examiners at their discretion.

Georg Bischof  
Foundation Chairman, Working Group of MIS

Wolfgang Feil  
President of the European Board of Surgery
ETHICS & PROFESSIONALISM

The European Board of Surgery (EBS) believes that certifications by the EBSQ (European Board of Surgery Qualifications) carry an obligation for ethical behavior and professionalism in all conduct. The exhibition of unethical behavior or a lack of professionalism by a candidate may therefore prevent the certification of the applicant or may result in the suspension or revocation of certification. All such determinations shall be at the sole discretion of the EBS.

Unethical and unprofessional behavior is denoted by any dishonest behavior, including: cheating, lying, falsifying information, misrepresenting one's educational background, certification status and/or professional experience and failure to report misconduct.

The EBS has adopted a "zero tolerance" policy toward these behaviors, and individuals exhibiting such behaviors may be permanently banned from certification, reported to state medical boards, and/or legally prosecuted for copyright or other violations if identified.

Unethical behavior is specifically defined by the EBS to include the disclosure, publication, reproduction or transmission of EBS examinations, in whole or in part, in any form or by any means, verbal or written, electronic or mechanical, for any purposes.

This also extends to sharing examination information or discussing an examination while still in progress.

Unethical behavior also includes the possession, reproduction or disclosure of materials or information, including examination questions or answers or specific information regarding the content of the examination, before, during or after the examination. This definition specifically includes the recall and reconstruction of examination questions by any means and such efforts may violate federal copyright law.

All EBS examinations are copyrighted and protected by law. The EBS will prosecute violations to the full extent provided by law and seek monetary damages for any loss of examination materials.
PRIVACY POLICY

In the course of all EBSQ processes, like application, assessment of Eligibility, examination, certification and appeal the EBS officials must collect and utilize personal and professional information pertaining to its applicants and candidates.

The EBS has issued the following Privacy Policy to govern EBS' collection, use, and disclosure of such information and its policies and practices regarding the privacy of information during the certification processes. The goal of establishing this privacy policy is to assure all persons disclosing information to EBS during the certification processes of the sensitivity and care utilized in protecting this information.

In order to determine the qualifications of applicants during the Eligibility process, EBS requires that applicants provide personal contact and identifying information, as well as personal, educational, and professional background information. This information is used by EBS solely to identify and determine an applicant’s appropriate status with the EBS.

In connection with the registration and administration of its Examinations, EBS requires an applicant’s personal information, including name, mailing address, and verified passport copy. EBS restricts access to such personal information to EBS employees and contractors who need this information to conduct the registration, administration, and scoring of examinations, and for the verification of certification by EBS executive.

EBS does not disclose any personal information regarding its applicants to non-EBS employees and contractors, except when required by law.

EBS does not share personal information about its applicants with companies or other third parties outside of EBS for marketing purposes.

EBS considers only the certification status of applicants to be public information and regards all other information about applicants as private and confidential.

Individual examination results are not provided to any other person or institution. EBS will use performance on examinations and other information for research purposes and may publish these studies. In these instances, however, EBS will not identify specific individuals, hospitals, or practice affiliations.

Wolfgang Feil
President Division of General Surgery
The European Board of Surgery (EBS), being dedicated to the principles of fairness, consistency and equality in its dealings with its applicants and candidates, hereby establishes the following policy with regard to the resolution of questions or dissatisfactions arising from its policies and procedures.

Reconsiderations

Applicants and candidates may request reconsideration of decisions regarding the requirements and rules of the EBS on individual credentials, admissibility to the examinations. These requests are referred to the EBS Credentials Committee for evaluation and decision.

Individuals may not only request reconsideration regarding potential fraud or misconduct by the examiners, they may also reclaim the sufficiency or accuracy of questions and answers in context with the examination process.

No requests for reconsideration may be made on items defined in the EBS outlines about purpose, organization and general requirements. Amendments in these general outlines are at the discretion of the UEMS officials and may be subject of alterations in the future, all of this in cooperation with and fulfillment of European legislation and EU directives.

Within these guidelines any applicant who considers an action of the EBS adverse to his or her interest, or to be based upon unfairness, inconsistency or inequality may request reconsideration. The request must be made in writing within 30 days of receipt of notice from the EBS of the action in question. Requests must be sent by mail to the EBS secretary office (no e-mails or faxes). The request may be accompanied by such documentation as the requestor considers appropriate to support the request.

The request for reconsideration will be brought before the EBS Credentials Committee at the next regular meeting of that committee, and the decision of the committee shall be reported to the Executive of the Section of Surgery at their next regular meeting. Within 60 days following the meeting of the Executive, the requestor shall be notified, in writing, of the Credentials Committee action and the reasons therefore.

The decision of the Credentials Committee shall be considered final unless the complainant, within 30 days after having been advised thereof, gives written notice to the EBS that he or she wishes to institute a Personal Appeal, requests a hearing, and sets forth the reasons for disagreement with the findings of the Credentials Committee.
Personal Appeals

When a request for a Personal Appeal is received, the hearing shall be scheduled at the next regular meeting of the Credentials Committee. The appellant shall be notified in writing at least 60 days prior to the meeting of the time and location at which he or she should appear. The appellant shall be afforded the opportunity to appear in person and present oral and written evidence in his or her own behalf. The members of the committee have the right to question the appellant concerning anything in his or her record or the evidence presented. Upon completion of the hearing the committee shall, in closed session, reach a finding by majority vote. Their decision is final.

The finding of the committee and any recommendations shall be reported to the Section Executive. The appellant shall be notified in writing within 60 days as to the action taken and the reason for it.

Wolfgang Feil
President Division of General Surgery