



**UEMS Section and Board of Paediatric Surgery**

**European Paediatric Surgeons' Association**



# **European Syllabus in Paediatric Surgery**

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## Foreword

The UEMS Section and Board of Paediatric Surgery – EBPS - and the European Paediatric Surgeons' Association – EUPSA – have the pleasure to introduce the first edition of the European Syllabus in Paediatric Surgery.

The Syllabus sets out the optimal standards for training in Paediatric Surgery throughout Europe, and has to be intended as a reference document reflecting the general criteria laid down in the charter on training of medical specialists in the EU, to be read in conjunction with the existing national programs.

It defines the contents of training, the professional skills and attitudes requested to become a Paediatric Surgeon, the relationships between paediatric surgery and other related specialties, the details on training programs and training Institutions, the characteristics and requirements of trainers and trainees.

This document, finally approved in January 2008 by the Executive Committees of the EBPS and the EUPSA, is the result of a long preparation process that lasted some two years, involving at first the two European promoting bodies and thereafter all the European Scientific Societies for further comments, criticism and refinements.

Contributors to the drawing up of the Syllabus have been the members of the EUPSA Educational Committee, as well as the National Delegates of the UEMS – Section Paediatric Surgery, in a truly pan-european effort seeking to ensure a shared presentation and a consistent approach fitting into the systems across Europe.

Special thank are due to Azad Najmaldin for his extensive review of the draft and to Mrs. Rosemary Mackenzie for the formal revision of the final document. Valuable contributions were received in particular by Yves Aigrain (F), Vidmantas Barauskas (LT), Cenk Büyükkünel (TR), Robert Carachi (UK), Piotr Czauderna (PL), Christopher Fearne (M), Jean-Michel Guys (F), Hugo Heij (NL), Ulrich Hoffmann (D), Michael Höllwarth (A), Alexander Holschneider (D), Harry Lindahl (SF), Vincenzo Jasonni (I), Aigars Petersons (LT), Andràs Pintèr (H), Prem Puri (IRL), Paul Rieu (NL), Udo Rolle (D), Marian Vidiscak (SK), Karl-Ludwig Waag (D) and Tomas Wester (S).

This version of the Syllabus, available on the UEMS Section's website on [www.uemspaedsurg.org](http://www.uemspaedsurg.org) and on EUPSA website [www.eupsa.org](http://www.eupsa.org), has been purposefully identified as 1.0 to emphasize that is the first step of a long-lasting process of keeping it abreast with the continuous development of Paediatric Surgery. We will be grateful to all Colleagues wishing to help EBPS and EUPSA in this captivating task for the future.

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# 1. Introduction

The field of Paediatric Surgery (PS) encompasses the surgical care of the growing individual. It requires specialized knowledge and skills in managing congenital and acquired diseases and injuries in most organ systems, to be treated by surgical methods, including management, peri-operative care and rehabilitation from foetus to the final stages of development.

PS should be provided in paediatric surgical units based in centres where a full range of medical and surgical facilities for the care of the sick child are available. Most of these centres should provide postgraduate training in paediatric surgery and research facilities, and should be headed by a trained paediatric surgeon.

A paediatric surgeon is a surgeon specifically trained in the care of children, according to the rules and standards specified in this document.

Post-graduate training leading to recognition as a specialist in PS should furnish the candidate with knowledge and skills which enable him/her to be competent in the entire field of the specialty, which might include the following activities:

- acting in a consultative capacity;
- running a specialist practice;
- directing a programme of PS (in and outpatient) in a clinic, a hospital or in connection with a private practice;
- actively participating in providing students and patients education.

This document has been prepared for and approved by the European Board of Paediatric Surgery (EBPS) Section of Paediatric Surgery, Union of European Medical Specialists (UEMS), in its capacity as coordinating and monitoring authority at EU level, and by the Education Committee of the European Paediatric Surgeons' Association (EUPSA). It provides a reference document that reflect the general criteria laid down in the Charter on Training of Medical Specialists in the EU – requirements for the speciality of Paediatric Surgery (UEMS, Brussels, 1994) and should be read in conjunction with the existing national programmes within Europe.

This document is designed to:

- harmonise training programmes in PS between different European countries;
- establish defined standards of knowledge, skills and attitude required to practice PS at secondary and tertiary care level;
- foster the development of a European network of competent tertiary care centres for PS;
- improve the level of care for children with surgical diseases, and to thereby further enhance the European contribution to clinical and academic PS worldwide.

## 2. Contents of training

### 2.1 Basic sciences

Paediatric Surgeons are expected to have a knowledge and understanding of:

- Fundamentals of *genetics*, including counselling and screening in familial diseases;
- *embryology*, with particular emphasis to the causes and embryologic mechanisms leading to the development of congenital malformations;
- *anatomy*, to understand the basic anatomy and competently recognise the applied anatomy in both clinical and operative settings relevant to individual surgeons practice;
- *physiology* and *biochemistry*, to understand the effects of common surgical disease and injuries upon the normal structure and function of the various systems of the body, and including the physiological principles of *fluid balance* and *nutrition* of infants and children;
- *pathology* including the principles of *immunology* and *microbiology* relevant to paediatric surgical practice;
- *pharmacology* including actions and toxic effects of drugs commonly used in perioperative and intraoperative care and in the management of critically ill surgical children;
- *epidemiology and statistics*, to allow for critical appraisal of publications, reviews and audit programs.

### 2.2 Professional skills and attitude

#### 2.2.1 Communication and behaviour

- *Clinical contact with the patient*  
Ability to take a history and carry out a clinical examination of a child with a surgical disorder to include special details and methods outlined in the training record.
- *Acquire counselling and communication skills*  
Ability to counsel parents / carers, patients and health professionals in the many varied situations in clinical PS such as information about prenatally diagnosed malformations, psychological effects of surgery and hospitalisation - particularly if prolonged - on the child development, and in stressful circumstances e.g. critically ill and dying patients. Knowledge of transcultural communication, including informing parents via an interpreter.
- *Appreciate the role of family education in paediatric surgical disorders*  
Knowledge of the wide field of family education required in the PS diseases and the concept of the team approach to patient management.
- *Understand the role of staff management and of referral in particularly complex paediatric surgical disorders*  
Knowledge of the role of allied medical and surgical specialties in the management of complex paediatric surgical disorders; recognition of the complex conditions occurring beyond the limits of the experience and expertise gained by the trainee at the end of the training (see #3.4., 4.2., 6.2.); indications for appropriate referrals to Colleagues with specific expertise or to national designated centres for specified rare conditions.

## 2.2.2 Management

- *Acquire management skills in running a PS Unit*  
Some knowledge of management skills, including strategies for minimising intervention, costs, as well as avoiding unnecessary investigations.
- *Understand the socioeconomic and legal aspects of paediatric surgical disorders*  
Recognising the clinical signs and understanding the underlying social disorders in the battered / abused child syndrome. Direct contact with the medical social worker and other groups involved in working with the disabled / handicapped / battered / abused child. Ability to deal with medical / legal ethics and medico-legal aspects of PS will also be required.

## 2.2.3 Teaching and research

- *Acquire teaching experience*  
Demonstrate the ability to teach medical and paramedical staff by experience and attending specific courses.
- *Develop research experience*  
Training in the analysis of data and an understanding of the principles and practice of clinical research, literature research and review.

## 2.2.4 Quality control

- *Understand the value of Audit Methodology and Specific Outcome Measures and Quality management*  
Recognising the values of audit and outcome measures and risk management, and ability to analyse results and participate in audit relevant to PS.

## 2.3 Allied disciplines

### 2.3.1 General Surgery

- *Surgical Infections and their Prevention*  
Surgically important micro-organisms; pathophysiology of the body's response to infection; septic shock; sources of surgical infection-prevention and control; principles of asepsis and antisepsis; aseptic techniques; sterilisation; antibiotic prophylaxis and therapy of infections.  
PS in hepatitis and HIV carriers-special precautions; avoidance of infections transmitted by blood and body fluids.
- *Surgical Technique and Technology*  
Skin preparation; incisions and their closure; suture and ligature materials; patients' positioning; dressings; disorders of coagulation and haemostasis; diathermy-principles and precautions, alternative energy sources; lasers-principles and precautions; pathophysiology of wound healing; classification of surgical wounds; principles of wound management; scars and contracture; wound dehiscence; excision of cysts and benign tumours of skin and subcutaneous tissues; principles and techniques of biopsy and cytological sampling; modalities of tissue probe sampling for frozen section and paraffin histology, cytology and bacteriology; sampling of body fluids and/ or body excretions for laboratory investigation, interpretation of results; drainage of superficial abscesses; basic principles of bowel, urinary tract and blood vessel anastomosis.

- *Organ Transplantation*  
The knowledge of the problems related to organ transplantation, the possibilities and limits of this option, the pathologies that can lead to a transplantation, the technical aspects of the operation, the alternatives and contraindications, the pharmacological treatment of rejection, the follow-up of transplanted children.

### 2.3.2 Paediatrics

- *Paediatrics / Neonatology*  
Awareness of common paediatric and neonatal medical conditions and investigations and recognising the related surgical complications; ability to assess patient and differentiate surgical from non-surgical conditions.  
Understanding the close relationships between medical and surgical pathologies of the child, through attendance for an appropriate period of time (at least 3 months) of paediatric wards and clinics, including an exposure to paediatric intensive care in neonatal and paediatric ICU.
- *NICU / PICU*  
Knowledge of high care, intensive care and artificial ventilation and management of critically ill paediatric and neonatal patients.

### 2.3.3 Paediatric Anaesthesia

- *Anaesthesiology Techniques*  
Basic understanding of the different techniques of general anaesthesia; their indications and contra-indications; local and regional anaesthesia; explosive hazards relating to general anaesthesia and endoscopic surgery; central venous catheterisation; fluid replacement, infusion therapy and parenteral alimentation; blood transfusion and serology; blood coagulation disorders and substitution measures; blood gas analysis and acid base balance.
- *Critical Surgical illness and Intensive Care Medicine*  
The applied basic science relevant to the clinical assessment of critically ill children and to the understanding of disorders of function caused by haemorrhage, shock and sepsis: posttraumatic, preoperative, perioperative and postoperative intensive care medicine; cardiopulmonary and pharmacological resuscitation; single organ failure (heart, liver, kidney); multiple system organ failure (pathophysiology and treatment); respiratory failure, pulmonary oedema “shock lung”, acute respiratory distress syndrome; septic inflammatory response syndrome; malignant hyperthermia.

## 2.4 Paediatric surgery

Paediatric surgical core activity covers acute and non-acute diseases and injuries and acute and elective procedures in children in their pre-, peri- and postoperative aspects.

PS includes surgical pathologies of the *central and peripheral nervous system*; head, neck and face; respiratory system; gastrointestinal tract; *genitourinary system*; vascular and musculoskeletal system (including skin); endocrine system; lymphoreticular system; *orthopaedic traumatology*.

Within the domain of PS specific skills in the areas above written in *italics* are not included in the core curriculum in some European Countries; basic understanding of the principles of these subspecialties is nevertheless required.

Although paediatric cardiac surgery is not part of the domain of PS, awareness of surgical pathologies in this area is required.

### 2.4.1 Preoperative and postoperative care

- *Screening programs and prenatal diagnosis*  
Knowledge of the possibilities offered by pre- and postnatal screening programs for the early diagnosis of congenital malformations, preventable diseases and tumours. Knowledge of the possibilities offered by the various methods of prenatal diagnosis of surgical malformations, the likely modes of presentation, and indications for pre-natal intervention, as well as the ability to plan post-natal management.
- *Laboratory tests*  
Knowledge of the haematological, immunological, biochemical and histopathological changes that accompany paediatric surgical diseases. Ability to interpret and relate such knowledge and results to clinical scenarios.
- *Imaging*  
Knowledge of the indications for, and basic interpretation of, imaging techniques such as conventional X-rays, sonography, Doppler sonography, CT / MRI / PET scans and radio-isotope techniques in the investigation of the paediatric surgical diseases. Understanding of security measures in Radiology. Knowledge of radiation-sparing indications for X-ray investigations.
- *Endoscopic techniques*  
Knowledge of the indications and technical skills required for employing various endoscopic techniques such as gastrointestinal, respiratory and urologic endoscopy, both for diagnostic and therapeutic purposes. Handling of endoscopes and hygiene measures. Exposure to the opportunity of gaining knowledge and experience of evolving technological methods.
- *Other instrumental techniques*  
Knowledge of the indications and technical skills required for employing instrumental techniques in functional diagnosis, such as pH-metry, oesophageal and gastric manometry, anal manometry, urodynamics, etc.

### 2.4.2 Neonatal Surgery

Surgical care of the neonate, pre-term or full term, including comprehensive management of complex congenital malformations in close cooperation with all professionals involved; deep knowledge of fluid-electrolyte management of the baby.

Knowledge of incidences of associated anomalies and complications and risks of transfer from one unit to another.

Understanding the place of operative and non-operative managements and outcome in short and long-terms.

### 2.4.3 Emergency Surgery

Care of critically ill children with underlying conditions including coordinated multidisciplinary management; clinical assessment of more or less severely injured children and to the understanding of disorders of function caused by trauma, thermal injuries, haemorrhage and shock. Diagnosis and treatment of the battered / abused child.

Principles of pre-hospital care; clinical assessment of critically ill and severely injured children - scoring systems; management of the unconscious child; monitoring of vital functions in critically ill or severely injured children; initial management of children with multiple trauma; resuscitation and haemodynamic support; haemorrhage and shock; maintenance of airway in severely injured and

unconscious patients; management of cranial, thoracic, abdominal and pelvic trauma; management of soft tissue trauma.

#### 2.4.4 General Paediatric Surgery

- *Central and peripheral nervous systems*  
The surgical anatomy and pathology and treatment options of spina bifida, hydrocephalus, myelomeningocele, ventriculo-peritoneal shunts, together with their relationship with other organ systems such as gastrointestinal or genitourinary (i.e., neurogenic dysfunctional urinary bladder).
- *Head and neck surgery*  
The surgical anatomy and pathology of the head and neck, embryology of the congenital malformations of the area including labiopalatine clefts, regional lymph nodes, access to the great vessels of the neck.
- *Thoracic surgery*  
The surgical anatomy and pathology of the tracheobronchial tree, chest wall, diaphragm and thoracic viscera and the applied cardio-respiratory physiology relevant to clinical examination, interpretation of special investigations and understanding of disorders of cardio-respiratory function caused by disease, injury and surgical intervention.
- *Gastrointestinal surgery*  
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 congenital and acquired abdominal diseases.
- *Genitourinary surgery*  
The surgical anatomy, applied physiology and pathology of the genito -urinary system, relevant to: clinical examination, interpretation of special investigations, understanding of disordered function and principles of the surgical treatment of congenital and acquired genito-urinary disease and injuries.
- *Orthopaedic traumatology*  
Musculo-skeletal anatomy, physiology and pathology relevant to the clinical examination of the locomotor system and to the understanding of disordered locomotor function with emphasis on the effects of trauma. Pathophysiology of fracture healing, non-union, delayed union, complications, principles of surgical treatment, principles of bone grafting. Principles of conservative and operative treatment of fractures. Principles of nerve regeneration and nerve repair; peripheral nerve lesions; principles of tendon repair; soft tissues trauma; traumatic oedema and the compartment syndromes.
- *Tumour Surgery*  
Surgical oncology, including coordinated multidisciplinary management of the child affected by tumours; the applied basic sciences relevant to the understanding of the clinical behaviour, diagnosis and treatment of neoplastic disease. The role of cancer registers; clinico-pathological staging of cancer and premalignant states; principles of cancer treatment by: surgery, radiotherapy, chemotherapy, immunotherapy, hormone therapy; terminal care of cancer patients, pain relief.
- *Endocrine Surgery*  
Interpretation of special investigations, assessment and management of children with thyroid, parathyroid, adrenal and pancreatic conditions.

- *Minimally invasive surgery*  
Knowledge and skills of therapeutic intraluminal endoscopy, thoracoscopy, and laparoscopy.
- *Day case surgery*  
Understanding of the clinical, surgical and organisational implications of the routine surgical pathologies amenable to be treated as day cases.

## **3. Training programme**

### **3.1 Access**

Access to the training in PS will be delegated to the individual academic Institutions according to the national rules.

In order to train the most suitable individuals for this specialty, a selection procedure on a national basis should be set up. This selection procedure must be transparent and application must be open to all persons who have completed basic medical training. Selection procedure can be based on examinations or interview, or both.

Each country should train only enough paediatric surgeons to meet its own requirements of specialist manpower. The EBPS shall define guidelines for the planning of manpower in PS.

### **3.2 Duration**

The duration of surgical training should be at least six years. The training may not be interrupted for more than one year, unless otherwise allowed by National Regulations. The training should involve the maximum in-hospital hours/week allowed by the EWTD.

### **3.3 Structure**

A basic training programme should be incorporated in the early years of the training during which the paediatric surgical trainee shall acquire a central core of knowledge embracing anatomy, physiology, metabolism, immunology, nutrition, trauma, pathology, wound healing, shock and resuscitation, intensive care and tumours.

A preliminary common trunk in general surgery is the responsibility of training institutions together with the relevant National Authorities. It serves as the common basis and prerequisite for the specific programme in PS and should last from one to two years.

Following years of core curriculum training should be structured in a modular system, with modules inserted or omitted according to the national requirements (e.g. orthopaedics, traumatology, urology, etc.).

Active participation in a structured program of formal lectures, seminars, journal clubs, clinical and audit meetings should be an essential part of the training.

### **3.4 Minimal requirements**

In order to enable trainees to practice PS to a reasonable extent unsupervised after completion of the training (see # 6.1.), the training programme itself must expose them to a sufficient number of patients and procedures of sufficient diversity and complexity.

Trainees must demonstrate competence in a number of areas. The degree of competence will be determined by the trainer and be driven by the trainee. Four areas of competence for each procedure should be identified:

1. Has observed
2. Can do with assistance
3. Can do almost all – may need assistance
4. Competent to do without assistance, including complications

By the end of the training program candidates should reach the appropriate level (2 for complex procedures, 3 for average procedures and 4 for day case procedures) for a minimum number of cases in each of the areas detailed under # 2.4., to be detailed in the trainee's log-book (see # 3.5.).

This minimum number - as specified in the following table - is to be considered as a recommendation; it should be weighed against the national structure of the training program and should be linked to a registration of complications and outcomes (possibly documented in the log-book) aiming this Syllabus more for quality than for quantity.

Credit as active surgeon can only be claimed when the trainee has actively participated in all phases of treatment, has made or confirmed the diagnosis, participated in the selection of the appropriate procedure, has either performed or been responsibly involved in performing the surgical procedure and has been a responsible participant in both pre- and postoperative care.

Competence	Performer or supervisor of a younger trainee	Assistant to the trainer
Neonatal surgery	10	20
Emergency surgery	30	60
Day case surgery	100	200
Head and neck surgery	10	20
Thoracic surgery	15	
Gastrointestinal surgery	30	60
Tumour surgery	25	
Endoscopies	20	40
<b>TOTAL</b>	<b>200 (250)</b>	<b>400 (450)</b>
<i>If included in the National core curriculum</i>		
<i>Central /peripheral NS</i>	<i>10</i>	<i>20</i>
<i>Urology</i>	<i>20</i>	<i>40</i>
<i>Traumatology</i>	<i>80</i>	<i>100</i>

### 3.5 Monitoring and examination

Trainees must acquire experience in each of the areas of responsibility as detailed in this Syllabus within a structured and approved training programme. Operative experience should be documented in adequate log-books, modelled according to the standard model approved by the EBPS or at least reporting the same details. Proper compilation of the log-book is fundamental in the process of accreditation of the trainee.

Knowledge is assessed by examination of the trainee, at least yearly, through a viva, MCQ or similar suitable method; skills are evaluated on the basis of the content in the log-book when the minimal requirements have been attained.

The Diploma of Specialisation in Paediatric Surgery will be awarded, according to the national rules, only after final assessment of documented knowledge and competence.

The role of European Examination as run by the EBPS is complementary to National Examinations where they exist; although devoid of any legal value in the view of national legislations is a mark of excellence and should be sought by every new specialist in PS.

### **3.6 Quality assurance**

The National Professional Monitoring Authority and/or the EBPS, together with the teachers and training institutions shall implement a policy of quality assurance of the training. This includes visits to training institutions, assessment during training, monitoring of log-books or other means. Visitation of training institutions by the National Monitoring Authority and/or the EBPS shall be conducted in a structured manner, according to the UEMS Charter on Site Visits.

Quality control of the training in PS shall be the task of the EBPS. The EBPS will cooperate in this respect with the national paediatric surgical associations, but may also perform site inspections on a voluntary basis.

## **4. Training institutions**

### **4.1 Recognition**

Training must take place in an institution or group of institutions, based in a university hospital or associated with a university, which together offer the trainee adequate practice in the full range of the specialty as defined in this Syllabus. These Institutions must be formally recognized by their proper National Authority and can require further recognition by the EBPS through a Site Visit.

Super-specialized institutions may be recognized by the National Authority for limited periods of training (1-2 years).

### **4.2 Requirements**

Training institutions must include facilities for inpatient care, day care and ambulatory care, and shall be staffed by at least two trained paediatric surgeons. Neighbouring specialties must be present to a sufficient extent to provide the trainees the opportunity of developing their skills in a team approach to patient care. Consultations and operative procedures should be varied and quantitatively and qualitatively sufficient to meet the minimal requirements defined at # 3.4.

In addition to patient care, training institutions should provide trainees with educational and research facilities, access to adequate national and international professional literature (library, including IT facilities) as well as space and equipment for practical training of techniques in a laboratory setting.

Since it is not expected that every centre will cover all aspects of PS, and as the Syllabus aims to offer a wider and deeper clinical and operative exposure to the trainees, it is recommended whenever considered opportune the creation of a

consortium or structured cooperation among training institutions where trainees will rotate.

Training institutions must have up to date facilities for:

- paediatrics and its subspecialties;
- paediatric anaesthesia;
- child psychiatry;
- paediatric imaging;
- laboratory services.

There must be:

- a regular discussion of indications for operation;
- a weekly programme of teaching;
- regular discussions of morbidity and mortality (the possibility to attend autopsies should be encouraged);
- ready access to international journals and reference books;
- facilities for clinical investigations or experimental research are desirable.

The programme of training must give graded and progressive responsibility to a trainee under the supervision of the responsible paediatric surgeon and must be recorded in a detailed logbook as approved by the EBPS.

### **4.3 Quality assurance**

The training institution must have an internal system of surgical audit / quality assurance including features such as mortality and morbidity conferences and structured incident-reporting procedures. Furthermore, various hospital activities in the field of quality control such as infection control and drugs and therapeutic committees should exist. Visitation of training centres by the National Monitoring Authority or by the EBPS shall be conducted in a structured manner.

## **5. Trainers**

### **5.1 Head of the Training programme**

The Head of the training programme will have completed a specific training in PS and must have been recognized by his/her National Authority. He/she shall have practiced paediatric surgery for at least 10 years after specialist accreditation. The Head of training programme and his/her associate training staff should be actively practicing surgery.

### **5.2 Training staff**

A *trainer* is a paediatric surgeon accredited either at European or national level with the following additional qualifications: teaching experience, documented in the form of a teaching assignment to a local university, and/or a research tradition in PS.

Additional *teachers* in PS hold acknowledged expertise in one or in a few particular aspects of PS, but do not have to be accredited European paediatric surgeons, nor have to hold a university assignment or a personal research

tradition. Their individual teaching competence in the training programme is restricted to one or several defined topics.

## **6. Trainees**

### **6.1 Requirements**

The trainee is required to take responsibility for his or her learning and be proactive throughout the training programme.

To build up his/her experience the trainee shall be involved in the treatment of a sufficient number of patients (including on-call activities) and perform a sufficient number of practical procedures of sufficient diversity in order to be able to practice PS unsupervised to a reasonable extent after completion of the training (see # 3.4.).

The trainee will be required to keep his/her personal logbook [or equivalent] up-to-date according to National Guidelines, EU Directives and EBPS Guidelines. The logbook must be endorsed by the Head of Training or authorised deputy.

The trainee should attend and provide evidence of attendance at local, regional and national PS Meetings. Attendance at International Meetings is encouraged, possibly with financial support from the training institutions. Presentations at these meetings are strongly encouraged; every trainee should conduct some systematic reviews of specific topics.

The EBPS recommends a period of basic or clinical research within the training programme.

### **6.2 Trainer / Trainee relationship**

The head of training programme will meet the trainee at the beginning of the programme to define the educational schedule for that trainee. Reviews of progress should take place at regular intervals to appraise the individual. An annual assessment should be undertaken to report competencies achieved and to allow progress within the teaching programme. Assessments should be detailed and contain statements of theoretical and practical experience accumulated by the trainee. It is expected that the trainee will also provide an account of the training received and problems encountered. Reports will be submitted to the head of the training programme.

Trainers are expected to provide appraisal and assessment of progress:

- appraisal consists of sourcing requirements and checking evidence that this has been executed;
- assessment should be provided in terms of training and career ambitions, training experience related to the Syllabus, achievements related to current plan.

The ratio between the number of qualified specialists in the teaching staff and the number of trainees should provide a close personal monitoring of the trainee during his/her training and provide adequate exposure of the trainee during the training. Optimal ratio is considered to be one to two trainees for every trainer.

### **6.3 Training abroad inside and outside the EU**

Trainees should have the opportunity to be partly trained in recognized training institutions, both in other member states of the EU, as well as outside the EU. These training periods have to be approved by the relevant Authority. The EBPS shall maintain a list of training centres in the EU, accredited either at European or National level, willing to exchange trainees.

## **7. National training programs**

It is important to emphasise that this European training Syllabus Document has no legal value but only serves as a guideline to facilitate national implementation. It is hoped that any national programme for specialised training in PS will follow these European Guidelines closely in order to support the principle of trans-European homogenised standards and encourage free movement of trainees plus a mutual unrestricted acceptance and ratification of individual qualifications.

### **7.1 UEMS Countries with existing programs**

National training programs in PS already in place, or in advanced stage of development, should be considered as compatible with this Syllabus if they: have a content that is comparable (not strictly identical) with the European programme; have a duration that does not differ by more than plus/minus 1 yr from the European programme; and have a board examination at the end.

If relevant differences with this European Syllabus exist, National Societies in PS accredited at UEMS should strive to modify accordingly their regulations.

### **7.2 UEMS Countries without existing programs**

National professional medical bodies should be encouraged to adopt a national training programme in PS and to structure it in close compatibility with the European Syllabus. Until implementation of such a national training programme, motivated individuals should have the opportunity to train according to the European programme and to document their obtained qualification in the European Examination in PS on a voluntary basis.

### **7.3 Associated Countries and Non-European Union countries**

On a voluntary basis, the same arrangements as listed for EU countries should be applicable.