European Board of Pediatrics

THE EUROPEAN TRAINING SYLLABUS
IN
PEDIATRIC ALLERGOLOGY

This training syllabus outlines one of the subspecialist training programs in Tertiary Care Paediatrics, defined by European Union Specialists (UEMS)

It was designed by the European Society of Paediatric Allergy and Clinical Immunology in cooperation with the European Board of Paediatrics. It was approved by the UEMS section on Paediatrics (CESP).
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Abbreviations
PA  Pediatric allergology
EPA  European Pediatric Allergist
DBPCFC  Double blind placebo controlled food challenges
ICU  Intensive care unit
INTRODUCTION

This document describes the European Training Program in Pediatric Allergology (PA). It is one of the subspecialist training programs in Tertiary Care Pediatrics, defined by the Paediatric Section of the European Union of Medical Specialists (Union Europeenne des Medecines Specialistes = UEMS). The product of this training program is the European Pediatric Allergist (EPA). It is expected that European Pediatrics Allergists will practice their skills and apply their expertise within the framework of a specialized tertiary Care unit. Furthermore, such specialists will have commitment to train general pediatricians and peditricians with an interest in pediatric allergology.

In general this syllabus intends to achieve the following:

1. Harmonisation of training programmes in PA between European countries.
2. Establish clearly defined standards of knowledge and skills required to practice PA at the tertiary level.
3. Foster development of an European network of competent tertiary Care centres for PA.
4. Improved care of children within Europe with allergic disorders.
5. Enhanced European contribution to international scientific progress in the field of PA.

The prevalence of allergic disease in childhood has been increasing in industrialized societies during the last decades and allergic disease is a major cause of morbidity in children.
2. AIMS OF TRAINING

Specialist competence in PA demands extensive knowledge and skills to serve children suffering from, or at risk of allergic disease or non-allergic hypersensitive reactions at all levels of outpatient or hospital handling. In addition to investigation, treatment and care, the specialty includes the whole field of allergy prevention, both general and individual. An understanding of the environmental factors involved has become necessary for both primary and secondary prevention. This involves close cooperation not only with the child and its family but also with all the institutions and public bodies, which affect the child's daily living - day nurseries, kindergartens, schools, social services, environmental and building authorities and other bodies.

In addition, the European Pediatric Allergist (EPA) should provide competent consultations and technical assistance to other subspecialists. Especially, the EPA's should closely cooperate with Pediatric Pneumologists, Adult Allergists and specialists in other related fields such as dermatology, clinical physiology, pneumology, clinical immunology and oto-rhino-laryngology.

Furthermore, the EPA should serve in relevant administrative bodies, be involved in regular teaching activities, be able to conduct quality assurance and relevant research.

3. TRAINING PROGRAM

3.1. Structure of program.

The training program is structured in modules. Each module contains training in a specific area, expertise, or skill. Some modules are defined by content and duration, others by content only. Simultaneous training in different modules is possible, provided such a combination can be accepted as reasonable. A complete training can consist of modules acquired in several different training centres. At least one of these training locations should fulfil the criteria for a primary centre.

There are two different types of modules, obligatory and desirable. Obligatory modules are those considered essential for successful training. Usually at least 2 desirable modules will be included in the training.

3.2. Obligatory modules.

**Module HB. Hospital based** inpatient and outpatient management of pediatric patients with allergic diseases. The trainee should acquire expertise in the management of all hospitalised infants, children and adolescents with acute or chronic allergic diseases. Full-time assignment of the trainee, who is to be employed in a position of responsibility, is required. The wards in which training takes place must be under the direct medical supervision of the tutor.

This module should provide training and give understanding in the following basic topics:
- Diagnostic criteria of allergic diseases.
- Epidemiology of allergic diseases, locally and worldwide.
- Clinical course of allergic disease, from infancy to adulthood.
- Pathogenesis of allergic diseases - mechanisms.
- Influence of genetic and environmental factors on development of allergic disease.
- Primary and secondary prevention of allergy.

This module also should provide experience, knowledge and skills in

- Diagnosis and treatment of recurrent wheezing and acute asthma at various ages.
- Diagnosis and treatment of food allergy including additives, atopic dermatitis, acute urticaria and allergic rhino-conjunctivitis at various ages.
- Management of bronchial asthma -long term follow up.
- Management of chronic rhinitis and chronic urticaria.
- Indications for allergy testing.
- Practical allergy testing including skin testing, in vitro methods for specific IgE and inflammation markers, and histamin release from basophils.
- Allergen provocation procedures: conjunctival, nasal, bronchial, gastrointestinal, (foods and additives, DBPCFC).
- Diagnosis and treatment of anaphylaxis, including allergy to drugs.
- Pharmacotherapy of allergic diseases with special emphasis on methods of administration, effects, side effects and side effects influencing growth and development of the child.
- Environmental treatment including diagnosis and measurement of allergen exposure.
- Immunotherapy with pollen, animal dander, house dust mites and stinging insects' extracts.
- Basic pulmonary function testing (peak flow, spirometry, flow-volume curves, bronchial provocation testing, and blood gas analysis).
- Communication with children of all ages and their parents, placing emphasis on counselling skills and provision of appropriate disease education in order to optimize patients' compliance.
- Proper assessment and handling of family interactions and their impact on clinical symptoms and signs.
- Social and psychological issues relevant for children and families with allergic diseases.

This module also should provide knowledge of and insight into:

- Less common symptoms within the sphere of allergology.
- Contact dermatitis and other type IV reactions.
- The effect of city planning on the health and development of the child.
- Medical ethical issues important in PA, including ethics of research in children.
- Aims and priorities in health policy.
- Planning and budgeting and quality assurance and product monitoring.
- Qualities of leadership and sensitivity to the team approach in the practice of medicine.

**Required duration of 18-30 months**
Module PM: Preventive measures. The trainee learns all aspects of prevention with the aim of forestalling illness or deterioration of the patient's condition. The trainee must be able to advise on:

- Primary and secondary prevention through information and education.
- Steps to improve the child's environment.
- Stopping exposure to tobacco smoke.
- Physical training for asthmatics.
- Principles of treatment of exercise induced asthma.
- Skin care for eczema
- Nutrition in food allergy/intolerance.
- Prevention for high-risk families/infants.
- Occupational guidance.

Module BPRT: Basic Pediatric respiratory training. The trainee shall acquire basic knowledge and experience in such disorders, e.g. cystic fibrosis, pneumonia interstitialis, allergic alveolitis, congenital malformations of the respiratory tract, pulmonary involvement in oncologic diseases.

Module PID: Pediatric infectious diseases. Relevant knowledge of the immune response including congenital and acquired immune deficiency disorders, children with HIV and/or children born to HIV-infected mothers. The importance of underlying host disease, immunosuppressive treatment and immunocompromized children (e.g. in oncologic and ICU patients) in the development of infections. Proper investigation of infection-prone children.

Module RE: Research experience in the field of PA. Under expert supervision, the trainee learns to plan, conduct, evaluate and publish research projects. In addition she/he gains practical experience in presenting results to an international audience in form of oral or poster presentations.

Required one first authored research publication in the field of PA in an international peer-reviewed journal.

Module TE: Teaching experience for transfer of specialized knowledge. The trainee learns to structure, prepare and present lectures to different target audiences. This training includes bedside teaching and preparation of teaching material.

Required minimum: Teaching experience with medical students and at least 3 oral presentations.

3.3. Desirable Modules

Module PRM: Pediatric Respiratory Medicine gives the trainee experience in important parts of the field of allergic and hyperresponsive airway disease.
Required duration: 6-12 months.

**Module AP/MA:** Adult pneumology and/or medical allergology gives the trainee experience in long term course of allergic diseases and asthma into adulthood.

Required duration 3-6 months.

**Module OS:** Other specialties like dermatology, clinical physiology, clinical immunology, oto-rhino-laryngology. In several subspecialties problems with allergy are very common, and training in these specialties are of benefit for the PA specialist.

Required duration 3-6 months.

**Module RL:** Research laboratory. Experience from an allergy research laboratory will be of great benefit for a PA specialist.

Required duration 3-6 months.

### 3.4 Duration of training

Complete training in PA has a minimum of three years.

### 3.5 Monitoring of training

Each trainee's progress is monitored by the training director in the primary training centre, the tutor if the trainee is working out-side of the primary centre and the trainee her/himself. The trainee maintains a personal log book (portfolio), where she/he documents relevant training experiences. This log book and the trainee's progress through various training modules is discussed with the tutor(s) in monthly intervals. Successful completion of a training module is certified by the tutor. This certificate should be detailed, state duration of module, describe acquired knowledge and skill, and accurately quantify extent of theoretical and practical experience accumulated by the trainee.

### 4. THE TRAINEE

Obligatory prerequisites for entering the training program in PA are: completed training in elementary paediatrics; i.e. **common trunk** (three years), as accepted by CESP.
5. TRAINING CENTRES/TUTORS

Several institutions, located in close proximity, might combine into one training centre. In such case, one qualified individual must be designated as training centre director who represents this centre to the outside and carries the entire responsibility for the offered program.

5.1. Centres/units

Primary Training Centre

The primary training centres are highly specialised tertiary care centres for PA that can offer a complete training. They are defined by the availability of all obligatory modules. These centres will be the basis and organisers of full training for the individual trainee.

A primary training centre must at the same institution provide care in following related disciplines: Allergy-immunology, paediatric cardiology, paediatric intensive care, dermatology, paediatric gastroenterology, genetics, paediatric haematology-oncology, microbiology, neonatology, paediatric nephrology, paediatric neurology, pathology, paediatric pulmonology, paediatric radiology and paediatric surgery. If some of these specialties are lacking the training program can be undertaken in collaboration with another centre.

5.2. Tutors/teachers

5.2.1 Paediatric Allergology Training Director

APA Training Director is a tutor (vice infra) and the head of a primary training centre. He/she is responsible for the whole training program for the individual.

A training director is either a certified PA specialist or in a country where such a program has not been running a person with at least five years of broad-based practice experience in clinical PA, teaching and research. Such a person must have spent a minimum of 50% full-time professional activity in the practice of PA to receive credit.

5.2.2 PA Tutor

A tutor is responsible for a specific part of the training program in close collaboration with the training director.

5.3. Accreditations

For each country of the EU, a list of primary training centres and training directors is compiled and updated on an annual basis. One training director in each country should be responsible for updating this information.
Accreditation is given by the European Board of Paediatrics upon recommendation of ESPACI. ESPACI bases this recommendation on information received from the national PA training representative. In case of uncertainty or controversy, a centre visit of a nominated delegation of the Committee has to be arranged. In general, visitation of training centres should follow the rules as outlined in the relevant UEMS charter (presently a draft).

6. NATIONAL TRAINING PROGRAMS

6.1. EU countries with existing programs

National training programs in PA that already exist, or are in an advanced stage of development at the time when this European program is implemented, should be considered as compatible when they:

1. have a content that is comparable (not strictly identical) with the European program,
2. have a duration that does not differ by more than plus/minus one year from the European program,
3. and have a board examination at their end.

Each national syllabus should be closely scrutinised by the European Board of Paediatrics and ESPACI for compatibility. If such compatibility is given, the trainee, upon successful completion of this national training program, should automatically acquire the title of "European Paediatric Allergist" without having to pass an additional examination by the European Board of Paediatrics.

6.2. EU countries without existing programs

National professional medical bodies should be encouraged to adopt a national training program in PA and to structure it in close compatibility with this European program.

Until implementation of such a national training program, persons with well documented experience in PA could be certified as training directors as specified in 5.2.1. Motivated individuals should have the opportunity to train according to this European program and to document their obtained qualification in a relevant board examination on a voluntary basis. The instruments to monitor such a training and to entertain a final examination are again the European Board of Paediatrics in cooperation with ESPACI.

6.3. Non-EU countries with existing programs

If the existing national training program is found to be compatible with the European program (based on the same criteria as listed under 6.1), a trainee, after successful completion of the national program, should also be entitled to hold the title of "European Pediatric Allergist".
6.4. Non-EU countries without existing programs

On a voluntary basis, the same arrangements as listed under 6.2 should apply to this situation.

7. EXAMINATIONS

7.1. Current situation

National examinations in countries with a compatible national training program are accredited for the European qualification. In the present situation trainees from other countries who have successfully passed the training program will be accepted as PA "specialist".

7.2. Future

As soon as possible the European Board of Paediatrics should approve training directors in PA in every EU country. These directors should then organise the PA training and examination at a national level.

In the long run examination on a European level could be organised. Such examinations could be conducted at least once per year, and should be detailed enough to get an accurate impression of the acquired knowledge and expertise.

Successful passing of the training program and examination is documented by a European board certificate.