



TRAINING LOG BOOK IN PAEDIATRIC ALLERGOLOGY

**European Training Committee Paediatric Allergology
(ETC-PA)**

2019

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INTRODUCTION

TRAINING LOG BOOK IN PAEDIATRIC ALLERGOLOGY

The present Log Book is addressed to the European Training Syllabus of Tertiary Care Specialists in Paediatric Allergology

Each item is classified under the categories of Knowledge (K), Skill (S) or both

Recommended minimum degree of expertise to be acquired for each knowledge item or skill:

H – High (updated scientific knowledge)

I – Intermediate (Paediatric allergology textbook knowledge)

B – Basic (general Paediatric Textbook)

K – Knowledge

S – Skill

Modules A – Q mandatory

Modules R – S optional

The Trainee should be evaluated in each of the modules by his/her tutor who confirms the acquisition each required knowledge and or skill, by signing this Log Book.

Besides the main tutor, other tutors may be considered for the different modules of the Training Syllabus. (for example, Paediatric Gastroenterologist, Paediatric Pulmonologist, Dermatologist, ENT specialist, Ophthalmologist, Immunologist, etc)

At the end of this document, there is a signature page with the identification and signature of the trainee, the identification of the centre or centres where training took place and the signature of all the tutors that participated in the training process These signatures should be identical to the ones in the Log Book

European Syllabus in Paediatric Allergology for Tertiary Care Specialists: Log Book

A Basic Knowledge on Immunology and Allergic Diseases (mandatory)		K	Tutor sign
1	Immune response and Immunoregulatory mechanisms	H	
2	Pathogenesis of hypersensitivity and allergic diseases	H	
3	Epidemiology of allergic diseases, locally and worldwide	H	
4	Influence of genetic and environmental factors on development of allergic disease	H	
5	Clinical course of allergic disease, from infancy to adulthood	H	
6	Primary and secondary prevention of allergy	H	
B Allergens (mandatory)		K	Tutor sign
1.	Allergens and allergenic composition of the source materials	H	
2.	In vivo allergen standardization, principles and differences between methods	I	
3.	In vitro characterisation of allergen extracts, components and total allergenic activity	I	
4.	Allergens, aerobiology and distribution of inhalant allergens in the environment	H	
5.	Allergens, latex and drug allergens	H	
6.	Allergens, food allergens (including additives) and cross-reactivity of food allergens	H	
7.	Allergens/modified allergens/hypoallergenic allergens	H	
8.	Polyclonal and monoclonal antibodies against IgE and IgG epitopes	I	
9.	Methods for determination of indoor allergens, moulds etc. in dust and air	I	
10.	Methods for determination of mould spores and pollens in the air outdoors	I	
11.	Distribution of allergens in the environment	H	
12.	Hidden allergens in foods	H	
13.	Molecular Allergy diagnosis in clinical practice	H	
14.	Cross-reactive molecules and their clinical relevance	H	
15.	Allergen families and databases	H	

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C Diagnosis of allergy (mandatory)		K	Tutor sign	S	Tutor sign
1.	Definition of allergy and atopy.	H			
2.	Methods for routine and scientific skin prick tests, allergen patch tests and intradermal tests and their interpretation	H		H	
3.	Basophil activation Test (BAT)	I			
4.	Methods and interpretation of challenge tests in the conjunctiva, (nose), bronchi (allergen bronchial challenges) and single blind and double blind oral food and drug challenges, See also Asthma, Food Allergy and Drug Allergy	H		H	
5.	Methods for <i>in vitro</i> IgE (singleplex and multiple assays) and IgG testing and their interpretation	H			
6.	Methods for determination of mediators of allergic inflammation (MC mediators, Eosinophile cell derived mediators, interleukins and other cell markers).	H			
7.	Indications for <i>in vivo</i> and <i>in vitro</i> allergy testing.	H			
8.	<i>In vivo</i> test for delayed hypersensitivity (allergy patch test, intradermal tests)	H		H	
9.	<i>In vitro</i> morphological and functional assessment of cells and molecules involved in the mechanisms of immune response, hypersensitivity and immunopathology, according to current state of the art (principle and interpretation; meaning and validity of test results)	H			
D Bronchial asthma and other wheezing disorders (mandatory)		K	Tutor sign	S	Tutor sign
1	Different recurrent wheezing and asthma clinical patterns and phenotypes, their different pathology and natural history (including underlying pathophysiology and basic epidemiology)	H			
2	Differential diagnosis of asthma and clinically similar paediatric disorders	H		H	
3	Epidemiology of viral infections, mechanisms of viral wheezing	H			
4	Treatment of acute asthma and wheezing illness at various ages	H		H	
5	Long term management of asthma and recurrent wheezing at different ages including age related pharmacology and emerging therapeutic strategies, with special emphasis on side effects and those influencing children's growth	H		H	
6	Available techniques for inhalation therapy and their age related advantages and limitations	H		H	

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E Ocular and ENT Allergy (mandatory)		K	Tutor sign	S	Tutor sign
1	Diagnosis and management of allergic conjunctivitis and clinically similar paediatric disorders	H		H	
2	Anatomy, physiology and pathology of the upper respiratory tract and ear of paediatric patients	H			
3	Anatomy of the upper respiratory and ear of paediatric patients as visualised using imaging techniques	I		I	
4	Rhinitis: etiopathogenesis, classification, diagnosis and treatment. Sinusitis. Paediatric disorders mimicking rhinitis	H		H	
5	Long term management of rhinitis, considering the impact of both the disease and the medication on the patient's quality of life and school performance.	H		H	
6	Co-morbidities associated to allergic rhinitis	H			
7	Otitis media in allergic paediatric patients	H			
8	Indications of ENT surgery in patients with allergic rhinitis	H			
F Skin Diseases (mandatory)		K	Tutor sign	S	Tutor sign
1	Urticaria and angioedema (physiology, pathology, diagnosis, differential diagnosis with clinically similar paediatric disorders and treatment)	H		H	
2	Chronic urticaria (diagnosis and long term management with special emphasis, on quality of life and school performance)	H		H	
3	Diagnosis and management of hereditary angioedema	H		H	
4	Atopic dermatitis (physiology, pathology, diagnosis, differential diagnosis, and treatment; long term management of persistent cases with special emphasis, on quality of life and school performance)	H		H	
5	Contact dermatitis and other type IV reactions	H		I	
6	Mastocytosis (diagnosis and treatment; long term management)	H		H	

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G Food Allergy (mandatory)		K	Tutor sign	S	Tutor sign
1.	Epidemiology, types and natural history of food allergy	H			
2.	Manifestations of food allergy: <ul style="list-style-type: none"> a. Gastrointestinal symptoms (vomiting, gastro-oesophageal reflux, eosinophilic oesophagitis/gastritis, eosinophilic gastro-enteropathies, enteropathies, gastroenterocolitis, proctitis/proctocolitis, diarrhoea, chronic constipation, failure to thrive b. Extra-gastrointestinal symptoms (atopic dermatitis, urticaria, anaphylaxis, rhino-conjunctivitis, asthma) c. Food-dependent exercise induced anaphylaxis 	H			
3.	Non-allergic adverse reactions to foods. Paediatric disc mimicking food allergy	H			
4.	Most common food allergens and labelling regulations	H			
5.	Implications of egg allergy with vaccination (MMR, Influenza, Yellow Fever) and current recommendations	H			
6.	IgE mediated food allergy: diagnosis of causal food allergen by history	H		H	
7.	IgE mediated food allergy: diagnostic relevance of determination of specific IgE, skin prick tests and atopy patch tests	H		H	
8.	Use of molecular diagnosis in the management of food allergy	H		H	
9.	Diagnostic challenge procedures in food allergy, including additives <ul style="list-style-type: none"> a. Open oral food challenges b. Double-blind placebo-controlled food challenge 	H		H	
10.	Diagnostic elimination diet and supervised reintroduction	H		H	
11.	Oral allergy syndrome (pollen-food syndrome)	H			
12.	Coeliac disease	H			

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G Food Allergy (mandatory)		K	Tutor sign	S	Tutor sign
13.	Treatment of food allergy <ul style="list-style-type: none"> a. Elimination diet (nutritional aspects, education, EU regulative re. labelling etc.) b. Symptomatic treatment c. Treatment of anaphylaxis (see I) 	H		H	
	<ul style="list-style-type: none"> c. SOTI (Specific Oral Tolerance Induction) – no established recommendation d. EPIT (Epicutaneous Immunotherapy) – still experimental 	optional			
14.	Nutrition in food allergy/intolerance	H		H	
15.	Prognosis of food allergy; need for follow-up and re-challenges	H		H	
H Insect venom and body allergy 1 (mandatory)		K	Tutor sign	S	Tutor sign
1.	Definition of insect venom, insect body and related allergy in children	H			
2.	Epidemiology of insect allergy in children	H			
3.	IgE mediated insect venom and body allergy: Diagnosis of causing insect allergen by history	H		H	
4.	IgE mediated insect venom and body allergy: Diagnosis of causing insect allergen by skin tests, and <i>in vitro</i> IgE tests	H		H	
5.	IgE mediated insect venom and body allergy: Confirmation of the diagnosis of causing insect allergen by challenges?	H		H	
6.	Prophylactic measures in insect allergy	H			
7.	Non allergic adverse reactions to insect venom and body material	H			
8.	Immunotherapy in <i>Hymenoptera</i> venom allergy (VIT), see K - Immunotherapy	H		H	
9.	Non-immunological treatment of IgE mediated insect venom and body allergy	H		H	

¹ Insect allergy should be defined as allergy to *Hymenoptera* venoms, other insect venoms like mosquito bites/ mosquito venom, insect and lower animal and plant allergens, e.g. midges, spiders, nematodes, green algae and other algae etc.

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I Drug Allergy (mandatory)		K	Tutor sign	S	Tutor sign
1.	Definition and types of drug allergy in children. Paediatric disorders mimicking drug allergies	H			
2.	Epidemiology of drug allergy	H			
3.	Diagnostic procedures in drug allergy, skin prick tests, patch tests, intradermal tests, injection and oral challenge tests, <i>in vitro</i> IgE tests, methods for the measurement of tryptase and their interpretation	H		H	
4.	Non allergic adverse reactions to drugs	I			
5.	Clinical characteristics and diagnosis of NSAID intolerance	H		H	
6.	Acute desensitization in drug allergy	H		H	
J Anaphylaxis (mandatory)		K	Tutor sign	S	Tutor sign
1.	Definition of anaphylaxis and its main causes, namely foods, oral drugs, injected drugs, insect venoms, SCIT (injected drugs) and SLIT	H			
2.	Mechanisms of anaphylaxis: immunologic (IgE and non IgE mediated) and non immunologic	H			
3.	Clinical manifestations of anaphylaxis (cutaneous, respiratory, gastrointestinal, cardiovascular, neurological) and the importance of its early identification	H		H	
4.	Acute treatment of anaphylaxis emphasizing early adrenalin administration and life support measures	H		H	
5.	Complementary treatment of anaphylaxis besides adrenaline, post-treatment observation, guidelines for medical discharge	H		H	
6.	Absolute indications and recommended indications for prescription of an adrenaline auto-injector	H		H	
7.	Training with adrenaline auto-injector	H		H	
8.	Relevant patient and caregiver education. Written emergency plan. Personalised individual plan	H		H	
9.	Anaphylaxis at school. Preventive measures and emergency plans	H		H	

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K Preventive measures (mandatory)		K	Tutor sign	S	Tutor sign
1.	Definition of prevention <ul style="list-style-type: none"> ▪ Primary prevention ▪ Secondary prevention ▪ Tertiary prevention 	H			
2.	Information and education	H		H	
3.	Discussion of possible effect of avoidance/reduction of exposure to inhalant allergens (mites, molds, dander, pollens, other)	H			
4.	Environmental treatment including diagnosis and measurement of allergen exposure	H			
5.	Dietary prevention <ul style="list-style-type: none"> ▪ Primary prevention in all infants <ul style="list-style-type: none"> a. Breast feeding ▪ Primary dietary prevention in high risk infants <ul style="list-style-type: none"> a. Breast feeding b. The role of documented hypoallergenic formulas ▪ Secondary dietary prevention in individuals with food allergy 	H		H	
6.	Prevention of exposure to tobacco smoking <ul style="list-style-type: none"> ▪ Preventive measures against starting smoking ▪ Measures to help stop smoking ▪ Measures to prevent second-hand exposure to smoke 	H		H	
7.	The possible role of pre-biotics, pro-biotics and symbiotics in allergy prevention	H			
8.	The possible role of specific nutrients (D- vitamin, E-vitamin, antioxidants, n3/n6 PUFA, etc)	H			
9.	Principles of treatment of exercise induced asthma	H			
10.	Physical training for asthmatics	H		H	
11.	Skin care for eczema	H		H	
12.	Occupational guidance	H		H	

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L Allergen Immunotherapy² (mandatory)		K	Tutor sign	S	Tutor sign
1.	Organization of allergen vaccination/immunotherapy, the facilities, personnel, education and continuous training	H		H	
2.	Methods used for allergen vaccination/immunotherapy (IT)	H		H	
3.	Allergen vaccines/extracts used for immunotherapy (extracts, recombinant allergens, modified allergens) and their pharmacokinetics	H			
4.	Mechanisms of IT	H		H	
5.	Indications and contraindications for IT	H		H	
6.	Information to patients and parents in advance of a decision to start IT			H	
7.	Allergy diagnosis (history, skin tests, in vitro allergen specific IgE, provocation tests), see B 1, Allergy Diagnosis, and asthma diagnosis, lung function, optimal asthma therapy, allergen avoidance, before the start IT (SCIT, SLIT and VIT)	H		H	
8.	Subcutaneous immunotherapy (SCIT): Dosing, dose schedules, top doses, intervals, duration long term prognosis preventive effects etc.			H	
9.	SCIT, with allergen extracts/preparations of house dust mites, pollens, animal danders, food and <i>Hymenoptera</i> venoms	H			
10.	Sublingual immunotherapy (SLIT): Dosing, dose schedules, top doses, intervals, duration long term prognosis preventive effects etc.			H	
11.	SLIT, with allergen extracts/preparations of house dust mites, pollens, animal danders and foods	H		H	
12.	Possible new methods for Immunotherapy with allergen extracts: Epicutaneous immunotherapy (EPIT) see G-Food Allergy) Intradermal immunotherapy (IDIT)	optional			
13.	IT: Supervision of asthma, environmental control, medication and allergen exposure	H		H	
14.	IT: Evaluation by annual clinical, immunological investigation	H		H	
15.	IT: Long-term follow up of clinical and immunological results in children given IT	H		H	

² Subcutaneous immunotherapy = SCIT; Sublingual immunotherapy = SLIT; *Hymenoptera* venom immunotherapy = VIT; Epicutaneous immunotherapy = EPIT; Intradermal immunotherapy = IDIT; Allergen immunotherapy in general =IT.

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L Allergen Immunotherapy (mandatory)		K		S	
16.	Acute treatment of IgE-mediated drug allergic patients by modified rush desensitization,	H		H	
17.	Anaphylaxis during SCIT, SLIT and VIT Investigation of causes such as subclinical asthma, other ongoing allergic inflammation, recent exposure to known or non-diagnosed allergens, i.v. injection etc	H		H	
10.	Anaphylaxis during SCIT, VIT and injected drugs: Acute treatment of anaphylactic reactions to injected allergens See J	H		H	
M- Drugs and biologics used for children and adolescents with allergic diseases (mandatory)		K		S	
1.	First and second generation anti-histamines – indications, efficacy, pharmacokinetics, side effects, food and drug interactions	H		H	
2.	Bronchodilators - indications efficacy, pharmacokinetics, side effects, drug delivery devices	H		H	
3.	Adrenaline - indications efficacy, pharmacokinetics, side effects, drug delivery devices (see J- Anaphylaxis)	H		H	
4.	Topical and systemic steroids - indications, efficacy, pharmacokinetics, side effects	H		H	
5.	Use of anti-leukotrienes, anti-IgE and other biologic modulators in the treatment of allergic diseases	H		H	
6.	Indications, efficacy and safety of Immunosuppressive drugs in the treatment of allergic diseases (eg. Calcineurine inhibitors, methotrexate)	H		H	
7.	Understand the importance of clinical trials in advancing therapeutic knowledge about allergic diseases.	H			

European Syllabus in Paediatric Allergology for Tertiary Care Specialists: Log Book					
N Approach to the allergic child and his family (mandatory)		K	Tutor sign	S	Tutor sign
1.	History taking in allergic patients			H	
2.	Recognizing clinical symptoms and signs of allergy	H		H	
3.	The “allergic march” and child with multi-systemic allergy	H			
4.	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	H		H	
5.	Proper assessment and handling of family interactions and their impact on clinical symptoms and signs	H		H	
6.	Social and psychological issues relevant for children and families with allergic diseases	H		H	
O Research (mandatory)				S	Tutor sign
1.	Scientific literature appraisal			H	
2.	Training in planning, conducting, evaluating and publishing research projects			H	
3.	Practical experience in presenting results to national and international audiences in form of oral or poster presentations			H	
P Teaching (mandatory)		K	Tutor sign	S	Tutor sign
1.	Informal teaching of junior doctors or nurses in Paediatric Allergology during clinical work			H	
2.	Formal lectures in PA to medical students, junior doctors or nurses			H	
3.	Knowledge and application of educational programmes for parents and patients in PA	H		H	

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Q Paediatric Respiratory Medicine: Physiology and Assessment (mandatory)		K	Tutor sign	S	Tutor sign
1.	Developmental anatomy and physiology of the respiratory system including ventilation–perfusion and gas exchange	H			
2.	Physiology and evaluation of cough, shortness of breath and noisy breathing	H		H	
3.	Respiratory function testing in infants, preschool aged and cooperative children: measurement and interpretation of spirometry and lung volumes, interruption technique, impulse oscillometry, plethismography, lung diffusion, rapid thoraco-abdominal compression	H		I	
4.	Performance and interpretation of reversibility and bronchial provocation testing	H		H	
5.	Indication, interpretation and basic principles of conventional radiography, computed tomography, magnetic resonance imaging, ultrasonography and isotope imaging methods	H		I	
6.	Indications and interpretation of the various airway endoscopy procedures in children: flexible and rigid bronchoscopy, broncho-alveolar lavage, bronchial biopsies	I			
7.	Indications and interpretation of cardio-respiratory polygraphy	I			
8.	Bronchial responsiveness: measurement, affecting factors, mechanisms, epidemiology and clinical application. Unspecific and specific challenge tests. Exercise Challenge test	H		H	
9.	Non invasive inflammation markers (including performance and interpretation of exhaled nitric oxide measurements)	H		H	
10.	Invasive inflammation markers	I			

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Optional Modules					
R Paediatric Respiratory Medicine: Disorders (optional)		K	Tutor sign	S	Tutor sign
1	Diagnosis and management of congenital malformations affecting the respiratory system	I		I	
2	Prevention, diagnosis and management of Bronchopulmonary Dysplasia and chronic lung disease of infancy	I		I	
3	Diagnosis and management of Cystic Fibrosis lung disease	H		I	
4	Allergic bronchopulmonary Aspergillosis and hypersensitivity Pneumonitis	H			
5	Diagnosis and management of other infrequent or rare lung diseases (gastroesophageal reflux associated lung disease, bronchiolitis obliterans, primary ciliary dyskinesia, neuromuscular diseases, etc)	H		H	
6	Rehabilitation in chronic respiratory disorders	H		I	
7	Diagnosis of and screening for obstructive sleep apnoea and upper airway resistance syndrome and hypoventilation	H		I	
8	Non-invasive mechanical ventilation	H		I	
S Adult Pulmonology/Allergology (optional)				S	
1.	Experience in long term course of allergic diseases and asthma into adulthood.			I	
2.	Ability to ease transfer of adolescent patients to adult care			H	

T Laboratory (Immunology oriented) (optional)		K	Tutor sign
1.	Quantification of total and specific IgE	I	
2.	Identification and characterization of antigens	B	
3.	Preparation of antigens	B	
4.	Detection and quantification methods for other antibodies	B	
5.	Quantification of cytokines and inflammation markers	B	
6.	Morphological and functional examination of cells and molecules involved in the mechanisms of hypersensitivity and immunopathology	B	
7.	Study of immune complexes	B	
8.	Quantitative and functional study of complement	B	
9.	Studies of cell populations and cellular immunity	I	
10.	Aerobiology and environmental studies	I	



SIGNATURE PAGE

Identification of the Trainee

Name:

Signature:

Identification of the Main Tutor

Name:

Qualification: Paediatric Allergologist

Institution:

Other Tutors

Modules	Name	Qualification	Institution	Signature