Logbook

Template

Specialty training in Allergology and Clinical Immunology

UEMS

Content

Introduction

This document includes the formal UEMS Allergology and Clinical Immunology Section and Board requirements of training in the speciality. It is based on UEMS Chapter 6, Charter on training of medical specialists in the EU and the Core Curriculum (Allergy 2004;59:579-88). Chapter 6 defines requirements for trainees, teachers and institutions including duration of training and training facilities. The Core Curriculum defines competencies to be obtained both for procedures and diseases.

The Logbook is the instrument to define level of competence for the different parts of training, to document progression of the training and to form the basis for final evaluation of competence.

The Checklist defines minimum competencies requested by UEMS. The idea of the UEMS Logbook is to supply national authorities with all relevant information related to the UEMS requirement for training in Allergology and Clinical Immunology. The "real life logbook" formulated by the different national authorities should therefore as a minimum include the Checklist with the defined levels of competence. National regulations may require higher levels of competence. The checklist also includes general competency. The newly educated specialist should be a medical expert/clinical decision maker, communicator, collaborator, manager, health advocate, scholar, and professional.

Strategies for evaluating trainee's competencies have been suggested, but the actual implementation is outside the field of UEMS. National decisions should be included in a personal logbook. Likewise a description of the learning process might be included in the National version of a personalized logbook.

Requirements for training Institutions

1. Recognition of the training institutions in Allergology and Clinical Immunology will be guaranteed by the UEMS Allergology and Clinical Immunology Section and Board on proposal by the National Authority.

2. It is advisable that the specialty should become a full speciality throughout the EU in order to harmonise the discipline and to allow a common European diploma. Recognized institutions and centres (hereafter referred as institutions) for full training should be located in countries where Allergology and Clinical Immunology are recognized as a full specialty. Where it is not a full speciality the requirements of both Articles 1 and 2 must be fulfilled (UEMS Charter on Training of Medical Specialists in the EU). Competencies quoted in the Core Curriculum must currently be part of the activity of the training centres.

3. A report of each Allergology and Clinical Immunology training institution must be presented to the National Authority who then must perform a periodical re-evaluation and certification.

4. The National Authority together with the teachers and training institutions should implement a policy of quality assurance for training in Allergology and Clinical Immunology.

General aspects of training

1. The Allergology and Clinical Immunology specialist Section of the UEMS will be the monitoring authority of Allergology and Clinical Immunology in the EU.

2. The general standard of institutions and teachers in Allergology and Clinical Immunology will be established by the Section and Board of Allergology and Clinical Immunology and by the Specialty and Educational Committee of EAACI.

3. Training should take place in accredited institutions approved by the National Authority.

4. Training must be done both in in- and outpatients clinics.

5. All allied institutions, e.g., Internal Medicine, Paediatrics, Immunology laboratory-oriented, Dermatology, ENT, Pneumology should offer training on a level corresponding to the Core Curriculum (Allergy 2004;59:579-88).

6. Optional training specialties (Clinical Pharmacology, Epidemiology, Occupational and Environmental medicine, Ophthalmology) should also offer training according to Core Curriculum.

7. Institutions providing training should manage at least 500 newly referred allergy and clinical immunology in- and outpatient cases per year.

Requirements for tutor and teachers

1. The chief of training should be recognized by the National Authority and possess the appropriate academic and professional specialty standards and skills. The teacher, tutor and the staff should be practising Allergology and Clinical Immunology to its fullest extent.

2. The teacher/tutor should work out a training program for the trainee in accordance with the trainee's own qualities and the possibilities of the institution, which also complies with national rules and EU directives and considers UEMS Allergology and Clinical Immunology Section and Board recommendations.

Educational plan

1. The Allergology and Clinical Immunology speciality-training program must be preceded by a basic medical training programme (Common Trunk) according to national rules.

2. The duration of training in the Common Trunk and Allergology and Clinical Immunology should be a minimum of 5 years.

3. Two years minimum of Common Trunk (preferably in the first two years)
a. 18-24 months Internal Medicine and/or Paediatrics

b. Options 3-6 months in sub-specialities to Internal Medicine or Paediatrics, Clinical Pharmacology, Epidemiology, Occupational or Environmental medicine.

4. Three years minimum (preferably in the final three years)
a. 24-30 months Allergology and Clinical Immunology for adults and/or children
b. 3 months Clinical Immunology Laboratory
c. 3 months Dermatology and/or Pneumology and/or Oto-RhinoLaryngology

General requirements for trainees

1. To build up his/her experience the trainee should be involved in the management of in- and out-patients and should personally investigate at least 500 new patients per year, including patients with asthma, nasal allergy, food allergy, anaphylaxis, urticaria and angiooedema, atopic dermatitis, drug allergy and, if included in the speciality, clinical immunology patients with immunodeficiency, primary or acquired, autoimmune diseases and other immunological disorders.

2. The trainee may receive education in both adult and paediatric allergy and must have cross training in both out-patient and in-patient populations.

3. The trainee should keep his/her personal Logbook up to date according to national and EU directives, as well as to Core Curriculum of UEMS Allergology and Clinical Immunology Section and Board.

4. Mastering of all theoretic aspects of the allergic evaluation including prevention, diagnosis and treatment, and systemic manifestations of allergic disease.

Checklist

General skill
(Columns for signs to be added in the National version of a personalized logbook)

The level of competences should be high (***) for each point

1. Counsel patients and the broader community on prevention and rehabilitation ***
2. Communicate effectively and compassionately with patients and their families ***
3. Communicate constructively and effectively with other physicians (especially referring physicians) and other health care professionals ***
4. Function as a member of the health care team and coordinate the team ***
5. Contribute to the education of students, other physicians, other health care professionals, and patients and their families ***
6. Maintain complete and accurate medical records ***
7. Undertake accurate self-appraisal, develop a personal continuing education strategy, and pursue lifelong mastery of allergology and clinical immunology ***
8. Evaluate the allergology and immunology literature critically and apply pertinent information to patient management ***
9. Ability to incorporate gender, cultural and ethnic perspectives in research methodology, data presentation and analysis ***

10. Managed at least 500 newly referred allergy and clinical immunology in- and out-patients per year ***

Theoretical knowledge

Three levels of competences are applied.
Level 1 (*) knowledge comparable with internal medicine or paediatrics (Common trunk)
Level 2 (**) the trainee knows fundamental backgrounds
Level 3 (***) the trainee knows, in detail, the background for relevant diseases.

1. Immunology
    Anatomy and Cellular Elements of the Immune System ***
    Immune Mechanisms ***
    Immunomodulation in the Immune Response ***
    Mucosal Immunity **
    Immunoregulatory mechanisms **

2. Epidemiology, prevalence, incidence etc **

3. Environmental factors ***

4. Risk factors ***

5. Genetics **

6. Allergens, structure, epitopes etc ***

7. Ethics ***

8. Experimental design and Good Clinical Praxis ***

9. Biostatistics, data analysis, presentation ***

10. Grant writing **

Practical knowledge

Level 1 (*) the trainee will be able to work in the relevant area under supervision
Level 2 (**) the trainee has good knowledge of diagnostic and therapeutic possibilities, without supervision, in uncomplicated cases
Level 3 (***) the trainee knows, without supervision, advanced diagnostic tests and all therapeutic possibilities even in complicated diseases.

Clinical diagnostic procedures
Skin prick test ***
Intradermal test ***
Patch test **

Delayed type skin tests with recall antigens *

Other clinical diagnostic tests are listed under each disease

Laboratory measurements

- Serologic: ELISA, radioimmunoassay, in vitro diagnostic tests (e.g., RAST, histamine release), radial immunodiffusion, nephelometry, immunoblots, high performance liquid chromatography, isoelectric focussing, immuno-electrophoresis, electroimmuno-diffusion, and protein electrophoresis **

- Test-performance characteristics: principles of sensitivity, specificity, and predictive value as well as cost-effectiveness ***

- Allergen extracts: Principles of preparations **

Allergen-specific immunotherapy
Theoretical: Allergen extracts, principles of the treatment, different induction regimens, indications, contraindications, interactions by drugs and diseases, side-effects, preventive capacity, long-term capacity, and cost-effectiveness ***
Practical: Perform induction and maintenance treatments (both patients allergic to inhalant allergens and Hymenoptera venoms) ***

Knowledge in specific diseases.

The knowledge for each disease includes physiology, pathology, allergen avoidance, diagnosis, differential diagnosis and treatment, including mechanisms of action, dosing, adverse effects, and costs/benefit. The specific practical elements are listed for each disease and include understanding of indication, contraindication and interpretation of findings.

Allergic rhinitis
Theoretical knowledge ***
Practical:
Anterior nasal examination (speculum) **
Nasal endoscopy examination (*)
Assessment of nasal secretion **
Assessment of ciliary function **
Assessment of radiographic examination including computerized enhancement**
Allergen environmental examinations (house dust mites, animal dander etc.) ***
Rhinomanometry (*)
Nasal non-specific provocation test **
Nasal allergen provocation test ***

Sinusitis
Theoretical knowledge: **
Practical: Rhinoscopy, nasal examination, assessment of radiographic examination including computerized enhancement **

Nasal polyposis
Theoretical knowledge: **

Practical: Assessment of ciliary function, rhinoscopy, nasal examination, assessment of radiographic examination including computerized enhancement **

Otitis media (bacterial and serous)
Theoretical knowledge: *
Practical: Ear examination, assessment of radiographic examination including computerized enhancement, and tympanometry *

Conjunctivitis
Theoretical knowledge: ***
Practical: Inspection of the conjunctiva ***
Conjunctival allergen provocation test ***

Laryngeal disorders
Theoretical knowledge: *
Practical: Laryngoscopy (*)

Asthma and asthma-like disorders
Theoretical knowledge: ***
Practical:
Chest examination ***
Peak flow ***
Spirometry ***
Whole-body plethysmography, airway resistance, and diffusion **
Induced sputum **
Bronchial allergen provocation tests ***
Bronchial non-allergen tests ***
Exercise and physical tests ***
Occupational allergen exposure test **
Sputum analysis **
Interpretation of bronchoscopy **
Interpretation of bronchial lavage **
Interpretation of radiographs **

Hypersensitivity pneumonitis
Theoretical knowledge: *
Practical: Chest examination, precipitating antibodies test performance characteristics, pulmonary function testing, bronchial challenges, sputum analysis, and interpretation of bronchoscopy and bronchial lavage and of radiographs *

Chronic obstructive pulmonary disease
Theoretical knowledge: **
Practical: Chest examination, pulmonary function testing, interpretation of radiographs **

Cystic fibrosis
Theoretical knowledge: *
Practical: Chest examination, pulmonary function testing, and interpretation of radiographs *

Sarcoidosis
Theoretical knowledge: **

Practical: Chest examination, spirometry, and interpretation of radiographs **

Urticaria
Theoretical knowledge: ***
Practical: Cutaneous examination, immediate hypersensitivity skin tests, tests for physical urticaria, autologous serum skin test, skin biopsy and immunohistology ***

Angiooedema
Theoretical knowledge: ***
Practical: Interpretation of quantitative and functional C-1-esterase inhibitor tests, complement C3, C4, C1q, investigation of mutations ***

Atopic dermatitis
Theoretical knowledge: **
Practical: Cutaneous examination, immediate hypersensitivity skin tests, atopy patch test and food challenge **

Contact dermatitis
Theoretical knowledge: *
Practical: Cutaneous examination, (photo) patch testing, intradermal skin tests and application test *

Mastocystosis
Theoretical knowledge: *
Practical: Cutaneous examination, skin biopsy, tryptase and histamine metabolites. *

Drug rashes
Theoretical knowledge: **
Practical: Cutaneous examination, patch testing, drug skin testing and in vitro tests **

Hypersensitivity reactions (e.g., hypersensitivity vasculitis and other immunologic skin disease)
Theoretical knowledge: *
Practical: Cutaneous examination, patch testing, immediate hyper-sensitivity skin tests, skin biopsies *

Drug hypersensitivity
Theoretical knowledge: ***
Practical: Drug skin testing and in vitro tests ***
Patch test ***
Challenge tests (oral, intravenous, intramuscular, subcutaneous) ***
Desensitizing protocols ***

Food allergy and intolerance
Theoretical knowledge: ***
Practical: Food allergen skin testing ***
Food allergen challenge tests (open and placebo-controlled, double-blind) ***
Combined food challenge and exercise tests ***
Prescription of adequate diets ***

Food-additive reactions
Theoretical knowledge: ***
Practical: Food-additive challenge tests (open and placebocontrolled, double-blind) ***

Gluten sensitivity
Theoretical knowledge: **
Practical: Diagnostic test for gluten enteropathy **

Gastrointestinal eosinophilic diseases
Theoretical knowledge: **
Practical: Food allergen skin testing, food allergen challenge tests (open and placebo-controlled, double-blind) **

Anaphylaxis
Theoretical knowledge: ***
Practical: Emergency treatment, testing for responsible allergen, e.g. peanuts, penicillin, latex, etc., challenge tests, prophylaxis ***

Stinging insect reactions
Theoretical knowledge: ***
Practical: Skin prick testing ***
Living insect sting challenges (*)
Emergency treatment ***
Allergen-specific immunotherapy ***

Complement deficiencies (Hereditary and acquired angiooedema, complement-component deficiencies)
Theoretical: ***
Practical: Interpretation of quantitative and functional C-1-esterase inhibitor tests, complement C3, C4, C1q ***
Interpretation of complement test results **

Primary immunodeficiencies (Severe combined immunodeficiency, DiGeorge syndrome, adenosine deaminase deficiency, ataxia telangiectasia, Wiskott-Aldrich syndrome, Netherparietal cell antibody, anti-receptor antibodies, antimyelin antibody, anti-neutrophil antibody, and antiphospholipid antibodies)
Theoretical: **
Practical: Assessment for thymic shadow, assessment of recurrent serious infections, immunoglobulin level interpretation, functional antibody interpretations, lymphocyte subpopulation and function, and delayed skin test performance and interpretation *

Acquired immunodeficiencies (Acquired immunodeficiency syndrome, chromosomal defects, metabolic defects, immunosuppression, viral infections, parasitism, malnutrition, malignancies, autoimmune diseases, burns, splenectomy, and radiation) *
Theoretical: **
Practical: Interpretation of human immunodeficiency virus tests (ELISA and Western blot), PCR testing, lymphocyte subpopulation and function **

Immunoregulatory diseases.

Optional for countries where immunoregulatory diseases are included in the speciality:

Laboratory measurements
Cellular: flow cytometry, assays of chemotaxis, phagocytosis, cytolysis, lymphocyte proliferation, immunoglobulin production *

Immunofluorescence and immune histochemistry *

Northern, Southern, Western blots; polymerase chain reactions; crossover break-point analysis; ligase chain reactions; in situ hybridization *

Hybridomas and monoclonal antibodies **

Autoimmune disorders (Organ and nonorgan autoimmune diseases such as: systemic lupus erythematosus, other collagen-vascular diseases (connective tissue disease), immune endocrinopathies, inflammatory gastrointestinal diseases, immunologic neuropathies and neuromuscular diseases, immuno-hematologic diseases, and immunologic eye diseases, etc)
Theoretical: *
Practical: Interpretation of physical findings; interpretation of autoantibody test results (including but not limited to) antinuclear antibody, anti-DNA, anti-Rho, and anti-La, anti-intrinsic factor, antiparietal cell antibody, anti-receptor antibodies, antimyelin antibody, anti-neutrophil antibody, and antiphospholipid antibodies *
Investigation and treatment usually undertaken by other specialists.

Vasculitis (Small vessel disease, medium vessel disease, large vessel disease, pulmonary and renal immune disease, and cryoproteins)
Theoretical: *
Practical: Interpretation of physical findings, interpretation of biopsy specimens of skin, kidney, and lung (immunofluorescence), interpretation of circulating immune complex levels, interpretation of cryoglobulins and autoantibodies *
Investigation and treatment usually undertaken by other specialists.

Phagocytic cell disorders (Chronic granulomatous disease of childhood, myeloperoxidase, deficiency, leukocyte-adhesion disorder (types 1 and 2), Chediak-Higashi syndromes, hyper-eosinophilic syndromes, and mastocytosis)
Theoretical *
Practical: Assessment of leukocyte function, chemiluminescence test interpretation, surface glycoprotein tests (e.g. CD1 1 a, b, c, and CD18) phenotype interpretation, chemotaxis assay interpretation, and absolute neutrophil count interpretation, superoxide generation, NBT testing *

Transplantation and GVHRs (Pharmacologic modulation and Immunomodulation of GVH reactions following transplant)
Theoretical: *
Practical: Diagnosis and treatment normally undertaken by other specialists *

Investigation and treatment normally undertaken by other specialists.

Immune-related malignancies (Plasma cell dyscrasia, multiple myeloma and gammopathies)
Theoretical: *
Practical: Interpretation of serum protein electrophoresis, interpretation of immunoelectrophoresis, interpretation of serum immunoglobulin levels, and interpretation of lymphocyte subset data *
Investigation and treatment normally undertaken by other specialists.

Immune reproductive defects (Infertility (male and female), abortion (chronic), Rh incompatibility, ABO incompatibility, secondary reproductive defects)
Theoretical: *
Practical: Interpretation of anti RH/AB antibody levels and interpretation of appropriate autoantibodies *
Investigation and treatment normally undertaken by other specialists.

Immunomodulation (Immunosuppressants, immune reconstitution, gammaglobulin and monoclonal antibodies, cytokine receptors and receptor antagonists, vaccines, plasmapheresis and cytopheresis, recombinant molecules.