

TRAINING PROGRAMME IN HAEMATOLOGY AND TRANSFUSION MEDICINE

(Definitive version approved by the haematology and transfusion medicine commission at the 20.10. 2006 meeting in Zagreb)

Haematology is both a clinical and laboratory speciality. Whilst it is recognised that most Haematologists have responsibilities in both clinical and laboratory areas, the extent of their responsibilities in the different areas will vary. Many Haematologists will work entirely in the laboratory and other Haematologists will work in the field of Transfusion Medicine.

Length of training

The UEMS recommends that post graduate training in Haematology should be for a minimum of five years. The Board of the Specialist section of Biopathology recommends that a period of clinical training should be an integral part of the training of all Medical Biopathologists. All Haematologists and specialists in Transfusion Medicine should have at least one year's experience in clinical medicine as a part of their post graduate training. Those trainees who plan to practice Clinical Haematology will need to extend the period of clinical training for at least 2 years in Clinical Haematology. Those who intend to pursue a career in Laboratory Haematology will need to gain experience for at least 2 years in a haematology laboratory. Trainees in laboratory Haematology may wish to gain experience in other areas of laboratory medicine such as Clinical Chemistry, Immunology, Microbiology or other relevant disciplines

Those trainees who plan to practice Transfusion Medicine should have at least 2 years training in Transfusion Medicine.

All haematologists should receive training in Laboratory Haematology, Clinical Haematology and Transfusion Medicine. The core curriculum as outlined below includes all these areas. The extent of training in specific areas of the curriculum will depend on whether the trainees in

tend to pursue a career in Laboratory Haematology, in clinical and laboratory haematology, or transfusion medicine.

General Objectives in Training (for all Haematologists)

The board of Medical Biopathology have set out the following objectives of training:

1. Specialised knowledge of the natural history of haematological diseases.
2. Interpretative skills so that a useful clinical opinion can be derived from laboratory data and microscopic examination of the blood and the bone marrow.
3. Technical knowledge of Laboratory Haematology including the implementation of quality systems and methods of validation.
4. Continuing medical education.
5. The trainees should receive formal instructions in information and communication technology particularly in its application to Haematology and Transfusion Medicine.
6. Research and Development experience. Throughout their training individuals should be encouraged to critically assess and evaluate published work. Ideally, the training should allow the individual to undertake a period of original research.
7. Management and communication skills.

The trainee should gain experience in all aspects of laboratory planning and management. The trainee should be involved in developing department policies and leadership skills.

8. The trainee should be familiar with all health and safety issues including their legal aspects.
9. Ethical issues. The trainee should be aware of the ethical issues related to clinical and laboratory haematology and transfusion medicine.

Training in Laboratory Haematology

Trainees should be instructed and be familiar with the following areas of general laboratory haematology.

1. Automated blood counting.
2. Staining and examination of peripheral blood films.
3. Cytochemical and immunophenotyping examination of bone marrow.
4. Knowledge of the methods for the identification and the diagnosis of congenital and acquired haemolytic anaemias and of abnormal haemoglobins and thalasseмии.
5. Molecular Biology and in particular its role in Haematology.
6. Knowledge of the techniques for the diagnosis of coagulation disorders. Knowledge of the methods and techniques used for identification of congenital and acquired bleeding disorders. Experience in the monitoring of patients requiring anticoagulant therapy.
7. Knowledge of the methods and techniques used for identification and management of thrombophilia and other hyper-coagulable syndromes.

Training in clinical haematology

The trainees should receive instruction in the management of patients with haematological diseases. These should include knowledge of the non malignant haematological diseases such as iron deficiency, haemolytic anaemia, megaloblastic anaemia, bone marrow failure syndromes, haemoglobinopathies and thalasseмии and also the myeloproliferative and myelodysplastic disorders.

The trainees should also receive instruction in the management of patients with malignant disorders including acute and chronic leukaemia, multiple myeloma and the lymphomas.

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The trainees should receive an introductory training in the management of patients undergoing haematological stem cell transplantation procedures.

The trainees should also be familiar with the diagnosis and the management of patients with coagulation disorders including haemophilia, von Willebrand's disease, other coagulation defects both congenital and acquired and the hypercoagulable syndromes.

The trainees should receive specific instruction in the haematological aspects of other hospital specialities including intensive care medicine, and obstetrics.

The trainees should receive an instruction in paediatric haematology including neonatal haematology.

Training in Transfusion Medicine

- Organisation and management of Blood Transfusion Centres. Knowledge of blood transfusion service at national and international level and, in particular, knowledge of the regulations and standards for transfusion medicine in Europe.
- Knowledge of the management of blood donor sessions including autologous blood donation. The trainee should be aware of the requirement for donor screening.
- The preparation of blood products including quality assurance.
- Knowledge of clinical indications for the transfusion of blood products including their handling and administration.
- The trainee should know how to ensure the safety of blood products and have training in Transfusion Transmitted Diseases.
- The trainee should be familiar with the techniques for grouping and cross matching and in immunohaematology, including knowledge of the standards for regents and red cell panels. The trainee should have experience in the clinical significance of red cell allo-antibodies and in the prevention and management of haemolytic diseases of the new born and of the immune haemolytic anaemia's.
- Knowledge of the investigation and management of transfusion reactions is essential and the trainee should be able to give clinical advice in all areas of Transfusion Medicine.
- White cell and platelet serology
Management of HLA-typed donor panels and knowledge of the techniques for the management of HLA sensitisation.
- Knowledge of techniques used for the collection, processing and preservation of stem cells.
- The trainee should be familiar with the use of apheresis procedure both for therapeutic purposes and for the collection of blood products.
- The trainee should be familiar with haemovigilance and the use of look-back procedures.