

In the Name of God

Islamic Republic of Iran Ministry of Health and Medical Education Deputy for Education

Adult hematology and oncology Degree: Subspecialty

Introduction

Blood, bone marrow, lymph nodes and spleen disease conditions have a relatively high prevalence and incidence both as a primary disease in these organs and as a sign of other infectious, inflammatory and nutritional diseases. Sometimes they may be the presentation of serious internal or surgical diseases. In addition, there are a considerable number of patients with anemia, thalassemia, hemophilia, and sickle cell anemia throughout the world and in our country that are in need of a high health expenditure and facilities. Adult hematology and oncology course is being taught for about four decades in the world and has been an independent course for more than two decades in Iran. The past decade witnessed tremendous evolutions in this area and according to new therapies and modern diagnostic methods, it is necessary to review the scope and curriculum of the field. Program development, and more importantly, the proper implementation of the program are the initial tools for education and its gradual and frequent modifications. Profound changes in education demands serious financial, intellectual investment and dynamic participation of experienced and motivated professors. This program was developed by participation of relevant faculty members and using curricula of reliable universities of the world. After numerous revision sessions, it was finalized and given to universities for execution. The developers of the program will welcome valuable comments of experts in this subspecialized for use revising the program in future.

Definition and Duration of the Training Program:

Adult hematology and oncology is one of internal medicine subspecialties, where all disorders of blood, bone marrow, lymph nodes and spleen and variety of cancers are examined, investigated, managed and followed.

This sub specialized course is mainly clinical and has laboratory-related aspects. Furthermore, examining and isolating blood components such as platelets, red blood cell, white blood cells and stem cells and plasma, and their therapeutic use are covered in this subspecialty.

Adult hematologists/oncologists collaborate in a multidisciplinary team to perform all therapeutic procedures of cancer patient.

The duration of the training course is three years.

Reasons for the necessity of this course:

- High incidence of different kinds of cancer
- High incidence of hematologic diseases such as thalassemia, hemophilia and sickle cell anemia in our country
- The impact of hematologic diseases on the growth, puberty and development of children
- The impact of hematologic diseases on the overall quality of the patients and their families.
- Rapid advances in the past two decades in the field
- Development of clinical and laboratory aspects
- The development of diagnostic and therapeutic procedures
- The high cost and the need for rational administration of medications in this field
- Development of production, purification, filtration and administration of blood products
- Development of molecular methods and prenatal diagnosis

Aims:

1-To train scientifically Up To Date adult hematologists/oncologists, who are competent, and committed to health system and who provides the society with their knowledge and expertise in three areas of education, research, diagnosis and treatment.

2-It is expected to have modern qualified centers for assessing and managing hematology/oncology diseases.

3- In the next two decades, we will be among the top countries in the Middle East in this field.

Expected Competencies at the End of the Program

General Competencies*

Specific Competencies and Skills

Procedural Skills:

Aspiration and bone marrow needle biopsy

LP and spinal chemotherapy

Ascites puncture

Pleural effusion puncture

Intracavitary chemotherapy

Staining peripheral blood smear

Staining bone marrow aspiration

Preparing and administrating chemotherapy

Educational Strategies, Methods and Techniques*

Student assessment:

Assessment methods

1. Residents continuous assessment through 360-degree tests, CEX Mini, etc.

2. Annual written and/or oral assessment

Periods of assessment:

1. Annual

2. Continuous

Ethical Considerations*

***Note:** The related document(s) can be found at <http://hcmep.behdasht.gov.ir/>

The Overall Structure of the Course:

| Department, unit or education setting | Content – measures | Duration (month) |
|---|---|------------------|
| Oncology ward | Visiting inpatients and outpatients -Performing related procedures -participating in the Medical consultants program - participating in all educational , research, treatment and care programs scheduled by the ward | 13 |
| Radiotherapy ward | Familiarity with the principles of radiation therapy and its indications | 1.5 |
| Blood Transfusion ward | Familiarity with the principles of blood transfusion | 1.5 |
| Children's Hematology and Oncology ward | Familiarity with major oncology/hematology disorders in children | 2 |
| Cytogenetic | Familiarity with cytogenetics procedures and tests and molecular genetics | 1.5 |
| Hematology ward | Malignant hematology diseases and other hematology diseases | 12 |
| Bone marrow transplant | Disease in which transplantation takes place and familiarity with the principles, indications and complications of transplantation | 3 |
| Hemophilia ward coagulation laboratory | Familiarity with tests and coagulation disorders and their treatment | 1.5 |

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