

## **MEDICAL ONCOLOGY IN TURKEY**

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Cancer treatment concerns many specialization areas in medicine. This reality is emphasized by the expression that cancer treatment is "multi-disciplinary" and it makes cooperation between disciplines obligatory. When the versatility of cancer treatment is considered, it will hardly be an exaggeration to argue that "cancer treatment is one of the indicators of the level of a country's health services". The level achieved by each area of specialization related to cancer treatment and the level of cooperation between branches can be regarded as the two most important elements determining the success of cancer treatment. This paper will deal with the current state of medical oncology, one of the main specializations of cancer treatment, in Turkey and some of the problems medical oncology is confronted with.

### **Cancer Burden and Structure of Medical Oncology in Turkey**

Both the numbers from the regions which are selected as "pilot regions" and from which community-based cancer data are collected and the evaluation of data from other countries make one think that cancer incidence in Turkey is around 175/100 thousand. Relying upon this evaluation it can be said that 120,000 new cancer cases are diagnosed each year in Turkey. It should not be surprising that when these numbers are compared with western countries (Europe, USA); it becomes evident that cancer is still observed less in Turkey than in the west. The main reason behind this situation is that the population below the age of 40 is more than 40 million in Turkey which has a young population structure. In addition, it is also known that there are some geographical distribution differences such as the fact that cancers associated with upper gastrointestinal system are observed frequently in the regions of Eastern and South-eastern Anatolia.

There were around 170 specialists of Medical Oncology as of the beginning of 2007 in Turkey. It is a reality that this number is rather below the required number when the population and cancer burden in

Turkey is taken into consideration. Turkey, with 2.5 specialists per each 1 million people with respect to the number of specialists of Medical Oncology per patient, ranks the last not only among the European Union countries; but also among all of the European countries in the report of European Society for Medical Oncology (ESMO), in which the Society evaluates the state of Medical Oncology in Europe (1). The insufficiency of the number of specialists of Medical Oncology should be regarded as one of the crucial bottlenecks concerning the development of cancer treatment services in Turkey. The primary factors expanding the dimensions of the problem as such are that Medical Oncology is a relatively new area of specialization in Turkey and that minor program assistant cadres are rather limited in the universities where the training of specialization is given. It is known that in the recent periods, on the other hand, training and research hospitals working under the Ministry of Health and university hospitals have been unable to take assistants for the training of Medical Oncology minor (as in other minor programs) for almost 4 years and for 1 year, respectively. Entrance examination for minor program specialization, the first of which is planned to be conducted centrally on September, 2007 will be an important development for overcoming the problems related to the issue. However, because it is expected that the number of new cancer patients in Turkey will rapidly increase in the forthcoming years -due to some reasons like population increase, increase in elder population, development of diagnosis possibilities-, it seems rather difficult to overcome the specialist insufficiency in Medical Oncology, although new assistants will be taken by entrance examinations for minor programs in order to be trained as specialists.

The years 2006 and 2007 were the period during which minor program training of the assistants was discussed intensely. The university hospitals could not make entrance examinations for minor programs, since the regulation of entrance examination for minor programs, prepared by the Ministry of Health at the beginning of 2006 for training and research hospitals was subject to an appeal and was canceled. The reports prepared by some related societies of specialization, training curricula studies of the General Directorate of Health Education, also including the minor programs and related meetings organized by some societies of specialization and participated by the authorities of the ministry and the Association of Turkish Physicians took place within this period. "Training standards and content" also came into the agenda besides "the procedure of minor program entrance" during the mentioned studies. As is known, according to the legislation still valid, assistant training -including the minor program assistant training- can be given with a single university member. When training requirements with respect to minor programs are taken into consideration, the significance of determining and implementing the related standards becomes apparent.

It is possible to set the following, taking into consideration the current state:

1. The insufficiency of Medical Oncology specialists is serious. It is expected that the requirement will increase in the forthcoming period.

2. The dimensions of the problem have been expanded by the fact that entrance examination for minor programs could not be done for a certain period of time. Developing the ability to make the minor program examination with a central examination may bring a permanent solution.

3. Developments in the area of medicine make it a stronger requirement that health services are given at the level of specialization. The related legislation which was prepared a long time ago and which contains the provision that "a rather limited part of major program cadres should be allocated to minor programs" is insufficient in meeting the increasing specialist demand. The provisions of the legislation should be re-determined taking into account the current conditions and it should be ensured that minor program specializations are done in the university hospitals more and more.

4. The difficulty confronted with in supplying cadres to minor program assistants in minor program assistant training, in which Medical Oncology is also involved, stands in the forefront -despite the training potential present generally in the university hospitals. On the other hand, capability of supplying cadres is broader in state hospitals. This situation sets the ground for cooperation between these institutions. This cooperation concerning the training of minor program specialization can be made in form of training supply in university hospitals to the cadres determined by the Ministry. In addition, it can be ensured within the framework of standards to be determined that some of the assistant trainings -in institutions limited by infrastructure and training facilities- are carried out "in the form of rotation" in university hospitals with more extensive facilities.

In Turkey, the existence of sufficient number of Medical Oncology specialists undergone qualified training will both consolidate the institutionalization of Medical Oncology minor and contribute to supplying a more qualified cancer treatment.

### **Chemotherapy Practices and the Problems Encountered**

Systemic practices of chemotherapy or new biological drugs -which primarily form the implementation area of Medical Oncology- in cancer treatment is one of the important components of cancer treatment. The adverse effects which can occur especially in cases where implementation rules can not be completely provided and some of which are life-threatening and in addition the high costs are the main characteristics chemotherapy practices. There appear many reasons why the chemotherapy practices should be planned and applied by Medical Oncology specialists, when the issue is handled as a whole. Although this is the direction of the practice carried out not only in western countries; but also generally in the world, it is not realistic to set and implement a similar rule for Turkey at most due to the insufficiency of Medical Oncology specialists and the organizational deficiency. Indeed, there are

no restrictive provisions concerning the level of the related specialist in cancer chemotherapy planning and application in Turkey, apart from some exceptions, and the reflections of this situation is observed in practice. This issue which can potentially create serious debates among branches should be evaluated being free from every sort of prejudice and taking into consideration the scientific truths, the world practices and the conditions of Turkey.

Cancer chemotherapy is a branch of medicine where rapid developments are experienced. New treatments, the activity of which have been proved scientifically, came into Turkey usually concurrently with the world. However, it is also true that in this area there are some problems peculiar to Turkey. The correct determination and solution of such problems will increase the success of cancer chemotherapy practices in Turkey.

**1. Problems Encountered in Standard Chemotherapy Practices:**

The provision that "the re-payments of all the cancer drugs will be done only in areas where they are authorized" was added in Budget Implementation Instruction within the process of the unification of social security institutions in Turkey. This led to problems in the use of some chemotherapy drugs, indication areas of which were not updated. It is known that "indication descriptions" are behind the actual information regarding the drug's activity in relation to drugs which have generally fell outside the scope of data protection, which can be replaced by equivalents, and which have less commercial return.

This problem was permanently solved in Budget Implementation Instructions of 2006 and 2007 by specifying the drug names and the open provision that re-payments will be made concerning these drugs (2).

**2. Failure to Find Some Chemotherapy Drugs:** An important problem we are confronted with is that "some chemotherapy drugs can not be found in Turkey for short-terms or long-terms". Contrary to what is supposed, a significant part of these drugs consist of classical chemotherapy drugs which again fall out of the scope of data protection, and bring less in commercial terms. This issue was taken into the agenda with all its aspects in a meeting participated by General Directorate of Pharmacy and Pharmaceuticals, Department Directorate of Cancer Control, National Cancer Advisory Board, Union of Turkish Pharmacists, and representatives of the drug sector on March, 2006. It was brought up that for the drugs mentioned in the meeting, "official procedure periods should be expedited and authority to bring-provide batches of them should be given to the Union of Turkish Pharmacists". The protocol including the specified authority was signed between the Ministry of Health and the Association of Turkish Pharmacists on June, 2006.

**3. Off-label Use Chemotherapy Practices:** As is known, the permit given by the competent health authority for a drug to be marketed in order to be used in a certain area is called "license" and the area of use of its descriptions is called "area of indication".

For a license, "both the activity and the reliability" of a drug should be proved scientifically. Without doubt, it should be preferred in all treatments "to use the drugs, licensing of which has been completed". However, it is known that off-label use is rather common in the area of oncology and in other areas throughout the whole world. There are publications noting that off-label use in the area of oncology is above 50 % in the world and in Turkey (3). The main reasons behind off-label use are the followings: rapid scientific developments, lack of updating in indication areas especially in cases where commercial earnings are low, consumption of authorized treatment alternatives, lack of sufficient studies in relation to authorization process in some rarely observed diseases. There are potential risks for the drugs which especially came into use recently in off-label use; such that their activity may not yet be proved and that they may have some side effects. These actualities made off-label use and determination of repayment conditions an issue discussed throughout almost the whole world.

It is understood that demand for off-label use has rapidly increased in the last few years both in oncology and in other branches. Although off-label use has been handled in relation to repayment and the rules have been determined by repayment institutions in many countries, it is understood that the issue is handled under the Ministry of Health in Turkey; since repayment institutions (like Retirement Fund, Social Security Organization for Artisans and the Self-Employed and Social Insurance Institution) are state insurance institutions and social security institutions are currently undergoing restructuring in Turkey. It is seen that in face of the increasing demand for off-label use, the Ministry of Health determined the principles of off-label use for all the branches with a circular, published on December, 2006 (4). A new practice for off-label use has been started with this circular: the practice of evaluation of "an application form with an annex of literature knowledge which can constitute scientific justification" by a scientific consultancy commission working under the Ministry. On April, 2007, on the other hand, a separate circular was prepared for cancer chemotherapy drugs (5). The definitions of off-label use areas for the drugs mentioned in this circular were made, receiving the opinions of related societies of specialization and subjecting these opinions to a latter evaluation within the units of the Ministry. Literature requirement was removed for specified areas, feedback requirement concerning post-use activity and side effects was required. In addition, it was specified in the circular that "off-label use areas of cancer chemotherapy drugs" shall be renewed quarterly under the light of scientific developments.

**4. Pharma-economy Practices in Oncology:** Health expenditures, medicines ranking the first, increases more rapidly than development levels of the countries through the whole world. The significance of health economy and pharmaco-economy as one of its branches has increased. These concepts, including also the determination of priorities in the area of health and directing the resources to such priority areas, brings limitations as well in some practices. It is not plausible to expect that any practice including cancer treatment can be kept outside these concepts. However, "cancer treatment including chemotherapy" has been handled as one of the more prior and privileged issues within pharmaco-economic concepts and rules have been determined accordingly. As long as pharmaco-economy rules with their scientific qualities find area of implementation in Turkey, privileged status of chemotherapy practices shall become more and more recognized.

**Sources:**

1. Medical Oncology Status in Europe Survey (MOSES), Phase II. ESMO MOSES Task Force. 2006: 18
2. Kanser ilaçları verilme ilkeleri. Tedavi Yardımına İlişkin Uygulama Tebliği, Madde 12.7.14. Resmi Gazete Sayı No: 26532; 25. 05. 2007 [Principles of giving cancer drugs. Implementation Communiqué on Treatment Help]
3. Koytak ES, Akbulut H, Demirkazık A. Türkiye’de Kanserli hastalarda resmi ruhsatlı endikasyonları dışında kemoterapötik ilaç kullanımı. XV. Ulusal Kanser Kongresi, Antalya, 23-27 Nisan 2003: P 157. [Off-label Use of Chemotherapeutic Drugs on Cancer Patients in Turkey]
4. [www.iegm.gov.tr/kurumbilgileri/mevzuat](http://www.iegm.gov.tr/kurumbilgileri/mevzuat) (Circular numbered 115-2006)
5. [www.iegm.gov.tr/kurumbilgileri/mevzuat](http://www.iegm.gov.tr/kurumbilgileri/mevzuat) (Circular numbered 29-2007)