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REPORT OF THE THIRD MEETING OF THE REGIONAL ADVISORY PANEL ON CANCER

Teheran, 9 March 1978

The views expressed in this Report do not necessarily reflect the official policy of the World Health Organization.

TABLE OF CONTENTS

		page
I	INTRODUCTION	1
II	EVALUATION OF THE ACTIVITIES OF THE REGIONAL REFERENCE CENTRES ON CANCER DURING 1977	1
	1. Regional Reference Centre on Head, Neck and Urinary Bladder Cancer	1
	2. Regional Reference Centre on Lymphoma and Cancer of the Oesophagus	3
	3. Regional Reference Centre on Cancer of the Breast and Cervix Uteri	4
III	REVIEW OF CANCER ACTIVITIES IN THE EASTERN MEDITERRANEAN REGION DURING 1977	5
IV	SUGGESTIONS FOR CO-OPERATION IN IMPROVING CANCER INFRASTRUCTURE AND CANCER ACTIVITIES	9
	1. Prevention of cancer	9
	2. Diagnosis of cancer	12
	3. Treatment of cancer	15
	4. Cancer registration and follow-up	18
	5. Rehabilitation of cancer patients	19
V	HOW TO STRENGTHEN CANCER ACTIVITIES IN EASTERN MEDITERRANEAN COUNTRIES	19
VI	PROGRAMME OF ACTIVITY OF THE REGIONAL REFERENCE CENTRES FOR THE BIENNIUM 1978-1979	20
ANNEX I	LIST OF PARTICIPANTS	
ANNEX II	AGENDA	

I INTRODUCTION

The Third Meeting of the Regional Advisory Panel on Cancer was held at the Taj Pahlavi Cancer Institute, Teheran, on 9 March 1978. The Meeting was attended by participants, as listed in Annex I.

Dr A.H. Taba, WHO Director, Eastern Mediterranean Region, opened the Meeting. In his opening address Dr Taba reviewed the progress made in the Region in the field of cancer activities due to the continuous improvement of technical cooperation of Member States and WHO. The Regional Advisory Panel has played a very important role in this respect since its inception in February 1975 when a Regional Cancer Programme was drafted. Successively the Panel has examined and recommended ways to improve various areas of cancer control, its activities being linked with scientific symposia or meetings where important subjects for cancer control have been analyzed. Also the establishment of three Regional Reference Centres in Egypt, Iran and Tunisia for most common cancer sites has proven successful in developing solutions for cancer detection, diagnosis, treatment, epidemiology, etc. appropriate for the Region. The Third meeting of the Panel will allow a further development in this domain, finding solutions for the improvement of cancer infrastructure and in launching a community approach for cancer activities in the Region.

The Meeting elected Dr A. Modjtabai as Chairman and Dr Kh. Qassab as Rapporteur. The attached Agenda (Annex II) was approved.

II EVALUATION OF THE ACTIVITIES OF THE REGIONAL REFERENCE CENTRES ON CANCER DURING 1977

1. Regional Reference Centre on Head, Neck and Urinary Bladder Cancer

A. Medical Research Institute, Alexandria

The work has been concentrated on the use of alpha esterase in serum and urine as a screening test for bladder cancer. The urinary alpha esterase and serum/urine ratio of the enzyme have shown a good correlation with the presence of urinary bladder cancer. Using an arbitrary limit of 150 u./l of enzymatic activity, the test has shown a sensitivity of 94% and a specificity of 96% in bladder cancer patients, as against patients with urinary symptoms of schistosomiasis. Further investigations are envisaged for a better evaluation of the test from the statistical viewpoint and for its trial on a wider field basis.

Consideration was also given to the age distribution of urinary bladder cancer in comparison with the age distribution of the population in Beneira Governorate (Egypt). The study of age distribution of cancer cases shows an excess of relative frequency age distribution starting from the age of 32. This figure will be used for lowering the age of screening to 30 years of age in the population exposed to schistosomal infestation.

B. National Cancer Institute, Cairo

Investigations in the following four directions are going on, some supported by grants from the National Cancer Institute, USA, Netherlands Cancer Institute, etc..

(i) Cytologic detection of carcinoma of the schistosomal bladder

A high risk group of 1 300 fellahin over 20 years of age and a low risk group of 1 500 persons have started to be screened by urine cytology in order to:

- determine the prevalence of bladder cancer as well as the frequency of atypical lesions;
- correlate cytologic findings with demographic data, symptomatology and severity of schistosomal infestation, all serving towards a more precise definition of a high risk group;
- determine the role of cytology as a screening method for the detection of carcinoma in schistosomal bladder.

Results of cytologic screening of 2 534 persons revealed the presence of schistosomal ova in only 17%; cellular dysplasia was found in 18% and two cases of confirmed squamous cell carcinoma were detected.

(ii) Factors involved in the induction of schistosomal bladder cancer

The goal is to evaluate the role of urinary bacterial infection in the process of induction of schistosomal bladder cancer. The following aspects are investigated:

ability of the flora present in schistosomal bladder to synthetize nitrosamines from nitrates and secondary amines present in urine,

ability of the flora to hydrolize conjugated carcinogens if present through the action of b glucuronidaze enzyme.

Ongoing studies have shown in chronic schistosomal cystitis and bladder cancer the presence of an increasing amount of nitrites (0.5 25 mg/24h) which are absent in urine of normal subjects. Also the presence of a high concentration of amines that can be chemically nitrosated was proved.

(iii) Promotion of the radioresponsiveness of carcinoma of schistosomal bladder

Randomized trial where cases are treated by surgery alone or surgery preceded by radiotherapy (400 rads x 5 fractions over 5 days) followed by surgery 1-4 days after radiotherapy. Preliminary results on 47 patients entered in both therapy branches show a decrease in number of recurrences in cases irradiated before surgery. Another trial using hyperfractionation (60 rads given each hour to a daily dose of 1 000 rads) is also taking place.

The third study involves investigating the penetration of the radiosensitizer RO-07-0582 in bladder tumours after intravesical administration. In eight cases eligible for total cystectomy the substance has been demonstrated deep in tumour and also in the perivesical tissues. The concentrations attained in tissue are within the effective radiosensitization range.

(iv) Clinical end results of carcinoma of the schistosomal bladder

This is aimed at investigating possibilities of improving survival rates using radiotherapy and/or chemotherapy, associated or not with surgical procedures. Also, various surgical procedures (ileal conduit, rectal bladder) are under study together with urodynamic physiologic studies. No comments on the results obtained were offered.

2. Regional Reference Centre on Lymphoma and Cancer of the Oesophagus

Taj Pahlavi Cancer Institute, Teheran, has reported the following progress:
(i) Establishment of a research unit for alpha heavy chain disease and small intestinal lymphoma. The unit has a 12 bed ward where patients suspected of having the disease are admitted for investigations included in the complex clinico-epidemiological protocol prepared by the WHO Study Group and by Dr Heath, WHO Consultant who visited the Centre during 1977. During its activity the unit has collected 50 cases - 25 of small intestinal lymphoma with alpha heavy chain and 25 without. Also, a monographic study with the review of the literature has been prepared for publication.

Collection of data on new cases will continue in order to reach 100 cases on which the epidemiological protocol recommended by Dr Heath will be applied.

(ii) A second ward for oesophageal carcinoma has been established where patients are admitted for diagnosis and treatment. It is envisaged to start an investigation on chemotherapy of oesophageal carcinoma in cooperation with the National Cancer Institute, USA, and the American University of Beirut, Lebanon.

A field project for using the brush cytology method for detection of oesophageal carcinoma is under preparation after the successful trial of the method in the out-patient clinic of Taj Pahlavi Institute.

In the domain of aetiology of oesophageal carcinoma, research is proceeding on the mutagenic effect of "sukhte" (burnt opium) which is chewed by people in Northern Iran.

3. Regional Reference Centre on Cancer of the Breast and Cervix Uteri

Salah Azaiz Cancer Institute, Tunis, has reported new developments in the field of:

(i) Breast cancer where the following activities were undertaken:

(a) Education of the public - a television programme was broadcast in June 1977, the results were a 25% increase in number of female patients coming for breast examination at the Institute. No clear data on the impact of the stage at detection are available yet.

(b) Treatment - a therapeutic trial for inflammatory type breast carcinoma is now started. The trial involves:

(1) three cycles C.M.F. chemotherapy;

(2) randomization between surgery and radiotherapy,

(3) fifteen additional cycles of C.M.F.

All cases submitted to this trial are followed by thermography, bone scanning and in vivo + in vitro immunological tests. The immediate results of this protocol have been particularly encouraging for a tumour which has only 20% five years survival and a high rate of recurrence at two years.

(ii) Cancer of cervix - The implementation of the recommendations of the 1976 Group Meeting are underway and a follow-up of the situation in Tunisia and within the Region is planned for 1979-1980.

After the review of the RRC activities during 1977 a brief presentation of the magnitude of cancer as a public health problem in Iraq has been made by Dr Kh. Qassab. The number of new cancer cases recorded by Baghdad Cancer Registry has increased from 3 292 in 1975 to 4 111 in 1977, equivalent to a 25% increase. Urinary bladder remains the first site in males during the three registration years. An increase in lung

cancer has been seen, followed by larynx which occupy in men the second and third place respectively in 1977. In women, breast is the leading site, followed by bladder, skin, non-Hodgkin's lymphoma and larynx. Data presented have been commented upon with regard to how cancer control activities should be directed in Iraq in order to improve the actual situation. A National Cancer Team has been appointed by the Ministry of Health and preparations for participation of Iraq in the WHO project on strengthening cancer activities are undertaken.

III REVIEW OF CANCER ACTIVITIES IN THE EASTERN MEDITERRANEAN REGION DURING 1977

Introduction

An increase of the interest in cancer activities expressed by National Health Authorities in the Eastern Mediterranean Region was evident during the year 1977.

The First Middle East Cancer Conference, the development of cancer registries, the intention of the Ministry of Public Health in Saudi Arabia to initiate a comprehensive Cancer Programme, a number of seminars, courses and other activities clearly demonstrate this interest.

Activities during 1977

The reports on the Group Meeting on Cancer of the Cervix Uteri and the Second Meeting of the Regional Advisory Panel on Cancer, both held in Tunis in November 1976, were reproduced, and distributed to all health authorities and to some specialists interested in CCU and oncology in general. It was noted that some EM countries, namely Libya, United Arab Emirates, Iran, Cyprus, and Pakistan, have demanded additional copies of the reports for wider distribution. It is not clear how far these reports have reached all those interested in the Region and what will be the impact of the report on CCU; however, one fact was particularly noted in Cyprus and Pakistan: the local specialists, used to a different system for staging and treatment of CCU, were not prepared to accept this specific part from the recommendations made by the report. It is suggested for the Regional Reference Centre on Breast and Uterine Cancer in Tunis to undertake a study with regard to this aspect and also to prepare for a follow-up study on CCU to be undertaken in 1980 in order to assess whether some improvements in detection, staging and treatment of CCU have resulted from the Group Meeting recommendations.

Cancer programme in Saudi Arabia

At the request of the Ministry of Public Health of the Kingdom of Saudi Arabia, the Regional Office sent a WHO consultant for a period of four weeks to assess the situation and advise on the development of a comprehensive cancer programme. The report of Professor El Kharadly, member of the Regional Advisory Panel on Cancer, comprises a review of the situation in this country and contains proposals for a comprehensive cancer project which, it is hoped, will be implemented by the Government.

Seminar on Tumours of the Female Genital Tract

This has been organized in Karachi, Pakistan, in March 1977 at the request and with the participation of the Government of Pakistan. WHO has provided two short-term consultants, who have presented subjects related to carcinoma of the cervix, carcinoma of the corpus uteri, malignant tumours of the vulva and vagina and rare tumours of the genital tract. Sixty-three participants from Pakistan attended the Seminar.

Meeting on Strengthening Cancer Activities at country level

This Meeting was held in Geneva from 1 - 3 June 1977 and has been attended by the Regional Adviser on Radiation Health and Cancer. In preparation for this meeting a few Eastern Mediterranean countries were approached with a view to investigating the willingness of health authorities to participate in a pilot project with the above-mentioned aim. Kuwait, Iraq and the Sudan have expressed interest in this pilot project. As a conclusion of the Meeting, it was decided to arrange for visits to countries participating in this pilot project by a team from WHO Geneva and the Regional Office, to meet with national teams, assess the situation of cancer activities and recommend ways to strengthen those activities.

Meeting on Comprehensive Cancer Programme

This Meeting organized by WHO EURO, Copenhagen in July 1977 has been attended by the Regional Adviser on Radiation Health and Cancer.

Course on Epidemiology of Chronic Diseases with special emphasis on Cancer

This has been organized by WHO EMRO in collaboration with the International Agency for Research on Cancer (IARC) and the Government of Pakistan in Karachi, 22 October - 3 November 1977. The course was attended by thirty-one participants,

from the following countries: Egypt (2), Iraq (1), Kuwait (1), Pakistan (24), Saudi Arabia (1) and Sudan (1). The aim of this course was to give to medical specialists working in the field of cancer and other chronic diseases some basic knowledge on how to mount epidemiological studies in this field, in order to identify causal agents, to find the efficacy of preventive measures or simply to measure the magnitude of the health problem investigated. For this course WHO has sponsored twelve participants and one faculty member, IARC has sponsored the rest of the six faculty members, plus secretarial help and books distributed to participants.

First Middle East Cancer Conference, Cairo, 5-8 November 1977

A Federation of Middle East Cancer Organizations has been established during this Conference attended by participants from Egypt, Iran, Iraq, Kuwait, Lebanon, Libya, Saudi Arabia, Sudan, Syria and Tunisia, as well as by representatives of UICC, WHO and IARC and scientists from USA, France, etc.

The Regional Office has sponsored three participants and three temporary advisers and has been actively involved in this Conference where a first session analyzed the data of Cancer Epidemiology of the Region; subsequent sessions discussed cancer of the breast, cancer of the head and neck, cancer of genito-urinary organs, cancer of digestive organs, nomenclature and coding of tumours and chemotherapy in cancer. A Round Table, chaired by Mrs Jehan Al Sadat, was devoted to Cancer Campaigns and Voluntary Organizations. The discussions were successful in leading to the banning of advertisements for cigarettes in the Egyptian press, radio and television.

During the Conference two important projects, developed by the Cancer Institute in Cairo in collaboration with the National Cancer Institute, USA, have been presented. One deals with the early detection of urinary bladder cancer in rural areas in Egypt and the second represents a comprehensive approach for schistosomal-induced urinary bladder cancer having as a research aim the elucidation of the aetiopathogeny of the disease and the improvement of its treatment. A special therapeutic protocol is now under clinical trial in Cairo.

The Conference was successful in increasing the interest in cancer activities in the Middle East, although some countries where such activities exist, did not participate (Cyprus, Jordan, Pakistan); in some other cases, the participation was not as active as it might have been. Also noted was the almost exclusive participation

of oncologists from Cairo Cancer Institute, although cancer activities are not restricted in Egypt to this Institute. A larger co-operation of all medical institutions working in this field in Egypt is very much needed.

Development in the field of Cancer Registries

Cancer registration has progressed during 1976 - Baghdad Cancer Registry has improved its coverage; the same applies to the Cancer Registry in Kuwait. The staff of the Cancer Registry in Alexandria has been increased and a better coverage of local hospitals is expected. In Iran a WHO consultant visited Teheran, Isfahan, Shiraz, Tabriz and the Caspian Littoral, assessing Cancer Registries already established in a few places. The subsequent report, gives a sound evaluation of the existing activities and makes valuable recommendations for the further improvement of those activities. The fact should be stressed that the consultant has endorsed the recommendations made by the Second Meeting of the Regional Advisory Panel on Cancer with regard to Cancer Registration. Special emphasis is laid on the fact that the Cancer Registry on the Caspian Littoral, which only records cancer cases without recording any action in terms of services offered to the patient, is strongly advised by the consultant to start offering such services.

From the data collected at the Regional Office some minimal incidences could be calculated for Kuwait, population data being also recorded. A census was made in Baghdad during 1976; when data become available minimal incidences for this city will also be calculated.

Pakistan decided recently to establish permanent cancer registries in five centres which have participated in the previous seven centres' study. Such cancer registries will be initially hospital-based and will become gradually population-based, defining precise area (and population) of catchment. Special attention is directed toward bone and female genital tract tumours in Pakistan.

Although cancer registries are not available in Saudi Arabia, some cancer data have been collected during the last ten years by specialists working in hospitals in Dhahran and Riyad. Some of these data were available to the WHO short-term consultant during his mission in Saudi Arabia.

Development of IPSID Project

Dr C.M. Heath, WHO Consultant, has visited Iran and Algeria in order to advise on an epidemiological study for the immunoproliferative small intestinal disease (IPSID). His report, including a very elaborate protocol for a case-control study, has been distributed to the interested specialists throughout the Region for comments and eventual implementation. A relevant comment has been received from Tel Hashomer Cancer Centre (Israel) asking to extend the investigation to all intestinal lymphomas with or without alterations of the alpha heavy chain. Reactions of other specialists are still awaited.

Fellowsnips

One fellow from Iran has been awarded a WHO fellowship to France, UK and Switzerland in Cancer Registry for a period of 9 weeks (March - April 1977).

IV SUGGESTIONS FOR CO-OPERATION IN IMPROVING CANCER INFRASTRUCTURE AND CANCER ACTIVITIES

This subject was considered by the Meeting of the Panel with a pragmatic approach aiming at assessing what are the main achievements and shortcomings in cancer infrastructure and activities in the Region and in which way cooperation on Regional or a wider international basis could be used for the improvement of the actual situation.

Consideration was given to the following areas of cancer activities;

1. Prevention of cancer - The members of the Panel were in agreement that only very few aspects of this activity constitute a preoccupation for Health Authorities within this Region.

(i) Primary prevention - A summarized review of the areas of concern for the primary prevention of common cancer sites in the Region are: smoking tobacco in various forms (cigarettes, homemade cigarettes, hooka, etc.), chewing various substances (tobacco, betel leaves, with various additives), exposure to solar radiation (ultraviolet in particular), schistosomal infestation, exposure to various industrial and urban pollutants resulting from rapid industrial growth, in particular in oil-producing areas and from huge urban agglomerations which are undergoing uncontrollable development

In the Region, exposure to food carcinogens due to improper storage or inadequate legislative measures for control of imported food, exposure to carcinogenic factors resulting from man-made activity improperly controlled in the Region (use and abuse of drugs, chemicals, ionizing radiations, etc.). It is known that a control of carcinogens in the human environment cannot be achieved only by legislative measures, even when every adequate monitoring programme is applied. Human behaviour is responsible for a major part of human exposure to carcinogens - smoking, drinking, overeating, exposure to sun, schistosomal infestation, etc. Therefore two important activity areas in the field of primary prevention of cancer in this Region have to be envisaged:

(a) Legislative measures - With adequate implementation and monitoring mechanisms which must be concerned with the following types of human exposure : occupational (related to all carcinogenic agents present at the place of work) and non-occupational (related to all carcinogenic agents exposing the population at large, such as - air, water, food pollution, ionizing and non-ionizing radiations from man-made sources, etc). As the number of countries with rapid industrialization is increasing in this Region and the lessons already learned by industrialized countries do not seem to be useful to Eastern Mediterranean countries, a Regional interest in appropriate legislative and implementative actions aimed at controlling both types of exposure, has to be developed as soon as possible. Progress already made in some countries of the Region could be useful for other countries in learning how to develop such an approach.

(b) Educative measures - These have a stronger impact on the real exposure to carcinogens and, although very little encouragement could be obtained from the experience of anti-smoking programmes in USA or UK, it is important that such measures be started in this Region. Educative measures with regard to primary prevention have to concentrate on the following habits: smoking, chewing, conditions related to infestation with schistosomiasis, solar exposure, food conservation leading to aflatoxine contamination, particularly eating or drinking habits etc. In various geographic areas of the Region one or more of the previous habits have to be considered as being of major concern - e.g. schistosomal infestation in Egypt, Iraq, Sudan. Particular attention has to be given to smoking which is such an important factor and is increasing so rapidly, even in the lower economic layers of the population, that

in many Eastern Mediterranean countries it should constitute a major concern. Here also is a fertile field for co-operation of countries of this Region in developing comprehensive programmes and audio visual material, to be used by the mass media and in the person-to-person education process.

(ii) Secondary prevention - This is an activity where some progress is underway in the Region. Early detection programmes have been evaluated in a very contradictory manner by leading cancer epidemiologists. The same study for early detection of breast cancer in New York was considered successful by partisans and doubtful by opponents. Without the aim of solving this scientific dilemma, the Panel has considered the pattern of cancer in this Region, the high percentage of advanced tumours at diagnosis which renders therapeutic intervention doubtful and contributes to underlining the idea that cancer is a totally hopeless disease. Such an idea, shared by authorities and the public, is just closing the vicious circle of thinking which could be briefly summarized as such - "nothing can be done in the field of cancer treatment, therefore all interest and effort made in this field is wasted." Such a situation is common in a large part of the world, but fortunately some Eastern Mediterranean countries are gradually breaking this vicious circle and increasing their efforts and investment in the field of cancer.

The Panel stressed the need for a definite improvement in secondary cancer prevention, especially in those sites which have major interest for the Region. As discussed during the second item of the Agenda, active studies for early detection are now being undertaken in Egypt for urinary bladder cancer, in Iran for oesophageal cancer, Pakistan has been concerned with oral cancer. Tunisia has shown some interest in breast cancer, etc. None of these activities are real mass screening programmes and it was not considered advisable to recommend that such programmes be started in the Region at present. On the contrary, it was found that with the existing possibilities for cytology the number of Pap smears practised in the Region is unacceptably small, despite the findings and the recommendations of the WHO Group Meeting on Cancer of the Cervix Uteri held in Tunis, November 1976 (see WHO EMRO Report EM/CAN/43). Also the Panel found that nothing has been done to involve general practitioners and front-line medical workers in cancer detection activity by application of simple clinical investigation methods (palpation for the breast, examination of oral cavity for oral cancer, etc.).

Regional Reference Centres for various cancer sites and other specialized cancer institutions within the Region have to play, in future, a more active and direct role in cancer detection through the following mechanisms.

(a) evaluating the most suitable methods for detection which are adequate for the Region and could be applied by front-line medical workers after some special training;

(b) preparing curricula, lectures and audiovisual aids for the training of front-line medical workers in early detection of cancer, using the simple methods mentioned above;

(c) preparing lectures, audiovisual aids, etc. for education of the public in relation to early detection of cancer;

(d) undertaking field trials of all the above-mentioned methods, training and public education programmes in order to verify their applicability before being recommended to the Region for broader application.

Only under active technical guidance of RRC as mentioned above will the countries of the Region be able to improve the actual situation in cancer detection. The WHO Regional Office will be able to support RRCs in their activity of evaluation of reliable methods and in preparing teaching material, using the internationally available expertise. At the same time, the cooperation of the Regional Office with all countries of the Region will be an important mechanism for implementation.

2. Diagnosis of Cancer - Analyzing the ways of improving cancer diagnosis, the Panel has identified the following areas where active measures have to be taken:

(a) Shortage of basic diagnostic facilities In a considerable number of Eastern Mediterranean countries the basic diagnostic facilities - pathology, clinical pathology, cytology, radiology, endoscopy, nuclear medicine, immunology and other similar specialized medical departments or laboratories - cover only a small fraction of the population, being available only in the capital city or, eventually, large towns. Even in countries with a good medical network and relatively adequate coverage with medical and paramedical personnel (Egypt, Iraq, Iran, Lebanon, Syria, Tunisia, etc.) some normal services able to improve cancer diagnosis - pathological laboratories, frozen sections during surgical interventions, needle biopsy, etc. - are offered only in few large medical institutions and cannot be obtained in hospitals and out-patient clinics where cancer patients are normally seen. This leads to delay

in diagnosis of cancer with all the known consequences for the prognosis of the disease. As this problem of shortage is in part a real problem and in part a false one - resulting from the concentration of facilities in main cities - practical solutions to it are not easily to be found.

It is evident that with the development of health networks a tendency is seen to increase the number of specialized services offered. With adequate planning it should not be very difficult to ensure the coverage of an increasing number of the population with all basic diagnostic facilities. In this activity the National Health Authorities have to be aware that the investment made in terms of manpower and equipment is not efficient in terms of amount of health produced unless the basic facilities for diagnostics are harmoniously developed - i.e. so as to cooperate in supporting the general practitioner or medical specialist in reaching a more precise and more rapid diagnosis and so as to enable a continuously improving coverage of the population.

Obviously the above-mentioned conditions are valid for improving diagnosis of all diseases, not only cancer, representing also a main prerequisite for a successful implementation of the primary care concept. But it is also evident that in preparing a realistic cancer programme, special attention has to be given to these conditions, because training of specialists able to perform the above-mentioned diagnostic techniques takes much longer than purchasing the equipment and installing the laboratories, in planning the basic diagnostic units, training has to start first. Suggestions have been made not to overlook the development of basic diagnostic facilities when country health programming is prepared.

(b) Lack of awareness of medical specialists in Eastern Mediterranean countries - with regard to cancer particularly the following: the most common cancer sites in their country, symptoms and signs leading to the diagnosis, the most efficient methods which could help diagnosis, adequate places where diagnosis could be confirmed in their country or area, etc.

Refresher courses for various kinds of specialists with regard to diagnosis of major cancer sites, as relevant for each speciality, is one major means of improving cancer diagnosis. Such courses could be prepared by WHO Regional Reference Centres and by other specialized cancer units within the Region, based on a programme and list of priorities established in cooperation with the WHO Regional Office.

Regional Reference Centres have a role to play in defining standards or recommended procedures for diagnosis and staging cancer sites within their terms of reference to be used by Eastern Mediterranean countries, in order to improve the actual situation and ensure comparability of diagnosis and staging in the whole Region.

(c) Use of special techniques and sophisticated methods for cancer diagnosis -

This has started in some Eastern Mediterranean countries mostly as a result of individual interest and therefore has not been aimed at having a public health impact, neither was the experience gained in one place shared by others. Examples are numerous and only a few are quoted: mammography and thermography in breast cancer is applied in Tunisia for at least 8-9 years but surprisingly are very little used in Egypt, Iran, Iraq, Pakistan, etc. although mammography has a well-defined place in diagnosis of breast abnormalities. Bone scanning for detection of early metastasis of breast carcinoma is in a similar situation. Other examples could vary from the use of fine needle biopsy to the application of radioimmunoassays for tumours, antigens or CT scanner. All these examples stress a fact - the methods used for diagnosing cancer are mostly not limited by lack of instruments and apparatuses but by the amount of interest shown by local cancer specialists. For such reasons some striking differences seen in the cancer patterns of Eastern Mediterranean countries may have an explanation in the particular interest shown by specialists who have been able to diagnose and correctly treat a particular cancer and therefore have obtained data closer to reality or even surpassing reality by referral cases from other areas. If the Regional Reference Centres were to mobilize all knowledgeable cancer specialists from Eastern Mediterranean countries in a search for reliable and broadly applicable methods for diagnosis of cancer, the particular situation described above could be gradually overcome.

(d) Combined cancer clinics - Diagnosis, as well as treatment of cancer, needs in most cases a multidisciplinary approach where surgeons, radiologists, medical oncologists, pathologists, and other types of medical specialists have to meet and assess the available clinical, laboratory and other kinds of information relevant to the case and decide the diagnosis and treatment. Such clinics are functioning only in very few places in the Region (Kuwait, Salah Azaiz Cancer Institute, Tunis, American University Hospital, Beirut and recently at the National Cancer Institute, Cairo). The Panel stressed its previous recommendations for active involvement of cancer

institutions and specialists from Eastern Mediterranean countries in establishing combined cancer clinics for major cancer sites where a multidisciplinary approach in diagnosing malignant tumours and establishing adequate treatment protocols could be applied.

Regional Reference Centres for Cancer and the Regional Office are requested to play an active role in suggesting how such combined clinics should be organized and their activity sustained until this becomes a normal type of activity in the field of cancer.

3. Treatment of cancer - The Panel considered the following aspects which could influence the treatment of cancer patients within the Region:

(a) Treatment facilities - The distribution of facilities for cancer treatment is uneven in the Region, especially with regard to radiotherpay. Only 13 countries have today fully established and experienced radiotherapy services. Two countries, Saudi Arabia and Afghanistan, have recently started such activities and eight countries do not have radiotherapeutic facilities and refer their patients abroad for treatment - often to a neighbouring Eastern Mediterranean country. Table 1 presents the three categories of countries.

TABLE 1

(A) Countries with established radiotherapy units (including Co-60 teletherapy)	(B) Countries in process of establishing radiotherapy units	(C) Countries without radiotherapy units
1. Cyprus	1. Afghanistan	1. Bahrain
2. Egypt	2. Saudi Arabia	2. Djibouti
3. Iran		3. Democratic Yemen
4. Iraq		4. Oman
5. Israel		5. Qatar
6. Jordan		6. Somalia
7. Kuwait		7. UAE
8. Lebanon		8. Yemen Arab Republic
9. Libya		
10. Pakistan		
11. Sudan		
12. Syria		
13. Tunisia		

The presence of radiotherapeutic facilities in a country does not mean that a sufficient number of machines and specialists are available to provide treatment to all cancer patients in need. Agglomeration of the radiotherapy machines in one place in the capital city is a fact. Out of the six Co-60 machines functioning now in Egypt, four are in Cairo and two are installed in two neighbouring institutions (Cancer Institute and Cairo University Hospital); two more machines will soon start their activity in the same area and a linear accelerator is also planned. In Baghdad all three linear accelerators and two Co-60 plus the conventional therapy machines are concentrated in one institution; the rest of Iraq has another Co-60 in Mosul and some conventional therapy in Basrah.

It is true that radiotherapy cannot be placed, because of its high cost, in each large hospital and some concentration at a certain level is necessary but also it is evident that Health Authorities have to be more concerned with the coverage of the population and ensure a more uniform distribution of the equipment in order to reduce the number of patients who cannot be treated.

Surgical treatment is commonly accessible to cancer patients in Eastern Mediterranean countries where a strong tradition to keep cancer surgery as a part of general surgery exists. Very few countries have accepted the idea of a cancer surgeon - and this is the reason underlying the fact that an individualistic approach in treatment of cancer patients prevails, the combined cancer clinics where various specialists are co-operating in deciding upon the best treatment policy for cancer patients are the exception and are found only in the places mentioned in para 2-d.

Chemotherapy - The main constraints in the application of cancer chemotherapy concern:

(1) the availability of drugs - which are highly expensive and therefore inaccessible for a large number of Eastern Mediterranean countries;
(2) the existence of specialists able to handle chemotherapeutic drugs properly;
(3) clinical laboratory support necessary for adequate application of cancer chemotherapy substances.

The Panel was concerned with the fact that the price of chemotherapeutic drugs is out of reach for a large number of cancer patients and stressed that a concerted action has to be envisaged within the framework of WHO in decreasing the price of the most common antineoplastic substances.

Another subject of interest was the limitation of access to cancer chemotherapeutic substances to only those medical specialists who have undergone a special training with regard to treatment of cancer patients and have the backing of laboratories of clinical pathology where various haematological parameters of the patient could be investigated routinely. Such an idea has been strongly recommended for implementation to all health authorities in Eastern Mediterranean countries.

(b) Personnel and activities - other important constraints in improvement of cancer treatment concern:

(i) Lack of specialized personnel - an insufficient number of radiotherapists and radiotherapy technicians has been found in Iran, Iraq, Syria, as well as in Afghanistan, Saudi Arabia; this constitutes another reason for the inability to cover all cancer patients in need of radiotherapy although machines are available. Cancer chemotherapists are only very few in Eastern Mediterranean countries and chemotherapy is routinely applied by radiotherapists or other specialists.

Cancer surgeons represent an even more difficult problem, as already discussed in para 3-a.

Medical physicists are very few in: Afghanistan, Iran, Lebanon, Libya, Pakistan, Saudi Arabia and Tunisia.

The Panel stressed the fact that the interest of National Health Authorities should be sought for training an appropriate number of specialists required for cancer treatment. Some training could be offered within the Region and the Regional Office was requested to prepare a survey of the places where such training could be arranged.

Activities in cancer treatment differ very much from one place to another within the Region in terms of methods used, ways records are kept, follow-up, etc. Lack of consensus with regard to treatment policy for major cancer sites, non-application of therapeutic protocols recommended by international therapeutic groups, very low percentage of follow-up, are factors preventing cancer institutions in Eastern Mediterranean countries from producing reliable and comparable end results or survival data.

Another area of serious concern is the continuous deterioration of clinical dosimetry as expressed by results obtained from WHO/IAEA Postal TLD intercomparison.

The Regional Office has taken active steps toward improvement of clinical dosimetry, sending a short-term consultant who has visited four countries and is planning for a refresher course in clinical dosimetry, three dosimeters have been ordered for Pakistan.

The Panel stressed the need for RRC to produce therapeutic protocols for major cancer sites to be recommended to Eastern Mediterranean countries for application. Also, the need was recognized to establish a system of continuous exchange of experience, and eventually patients, by specialized cancer institutions within the Region, in order to improve the actual therapeutic methods in malignant tumours.

4. Cancer registration and follow-up - During its second meeting the Panel gave particular attention to registration of cancer; the recommendations made are still valid. Hospital-based Cancer Registries (HBCR), recommended by the Panel as a first step in cancer registration, are available tools for the follow-up of cancer patients, for assessing the results of therapeutic protocols used, the influence of detection and diagnostic methods on cancer stage at moment when therapy is started, etc. For such reasons the Panel stressed the necessity to have HBCR introduced in all specialized cancer institutions or radiotherapy departments throughout this Region as a method of providing the cancer specialists (radiotherapists, medical oncologists, surgeons) with objective data for the assessment of the efficacy of their activity.

HBCR are recommended to be started as soon as possible in all institutions where at least 200-250 new cancer cases per year are seen and treated. The standardized WHO form for HBCR is recommended to be used (see WHO Official Offset Public. No. 25) in order to obtain comparable cancer data throughout the whole Region.

On the other hand, the Panel recognized the need to upgrade some of the existing cancer registries, such as those in Baghdad, Kuwait and Shiraz, in order to try to produce "minimal incidence data".

Another subject of concern was the periodic evaluation of data produced by the cancer Registries within Eastern Mediterranean countries together with a critical evaluation of all data showing unusual patterns, in order to identify eventual sources of error .

The Panel has also considered the problem of the follow-up of cancer patients, which constitutes one of the major drawbacks in cancer activity in this Region.

Unless the National health Authorities take special measures for the improvement of the follow-up, involving the whole medical network in this activity, all efforts to obtain a real understanding with regard to the results of cancer control programmes will be hampered.

5. Rehabilitation of cancer patients - This is an activity which does not receive very much support in Eastern Mediterranean countries. Efforts toward physical rehabilitation have been noted in Cyprus, Egypt, Iran, Kuwait, etc.; these activities, however, cover only a small number of patients.

The Panel was not able to consider this problem in depth because of lack of information. A suggestion was made to ask the Regional Office to obtain relevant information with regard to this subject and to submit this information for the Panel's consideration in two years' time.

In this broad review of the ways in which co-operation within the Region and on an international basis could improve cancer activities, the Panel gave a considerable number of recommendations which will have to be analyzed carefully by the National Health Authorities, Regional Reference Centres for various cancer sites and the WHO Regional Office, with a view to implementation. The Panel expresses the hope that, in its Fourth Meeting in 1979, some of the above made recommendations will already be implemented and that some progress reports will be presented.

V HOW TO STRENGTHEN CANCER ACTIVITIES IN EASTERN MEDITERRANEAN COUNTRIES

The Panel had been briefed on this Agenda item by Dr A. Garin, Chief, Cancer Unit, WHO Geneva, on the activity already started by WHO in South East Asia where two countries, Sri Lanka and Thailand, have agreed to participate in such a pilot project.

The following specific areas for technical collaboration and development activities were identified:

(1) Establishing/strengthening cancer control activities as an integral part of the existing medical care system;
(2) Quantifying the extent of the problem through phased development of a system of registration;
(3) Promoting preventive measures;

(4) Developing facilities for detection and diagnosis;
(5) Establishing standardized treatment at different levels of health care;
(6) Technical collaboration in cancer control activities;
(7) Training health and allied personnel to provide cancer services;
(8) Instituting environmental and occupational control measures for protecting the population, especially workers, from carcinogenic hazards;
(9) Promoting research; and
(10) mobilizing community, national and international resources for these activities.

The WHO team visiting the two countries mentioned above has met with national specialists and has prepared a programme aimed at strengthening cancer activities. The following aspects are being considered:

(a) Immediate objectives - which include a situation analysis of cancer data, infrastructure, personnel, activities performed, etc.
(b) Medium-term objectives - solutions were envisaged to improve cancer care;
(c) Long-term objectives - further development of cancer control aiming at the reduction of cancer mortality and, eventually, cancer morbidity;

At the end of Dr Carin's briefing the Panel considered the fact that three Eastern Mediterranean countries - Iraq, Kuwait and Sudan - have agreed to participate in this pilot project. Preparations were made in each of the three countries by a national team appointed by the respective Ministries of Health. A WHO team visited the three countries in March 1978 and discussed in detail all aspects of strengthening the cancer programme. The report of this mission was communicated to the Panel members.

The Panel decided to analyze the development of this pilot project at its Fourth Meeting.

VI PROGRAMME OF ACTIVITY OF THE REGIONAL REFERENCE CENTRES FOR THE BIENNIUM 1978-1979

The presentation of the activity of the RRCs during 1978-1979 was too detailed to be reproduced in this report. It was clear that the RRCs are gradually becoming more concerned with their role in developing appropriate methods for cancer detection,

diagnosis, treatment and prevention as relevant for the Region in their specific areas of interest. Also evident has been the fact that the RRCs have not yet been able to spread the experience obtained outside their own respective countries. A suggestion was made by Dr Kh. Qassab to develop in some Eastern Mediterranean countries working groups connected with the existing RRCs and obtain through such a mechanism a more rapid cooperation between the RRCs and Eastern Mediterranean countries.

The suggestions have been retained by the Panel for consideration after a more documented presentation during the Fourth Meeting in 1979. It was proposed that the two members concerned present a document where the description of the infrastructure, personnel, activities and expertise of the RRC will be given together with a draft programme of activity for 1980-81. This will enable the Panel to evaluate the problem and made recommendations with respect to the two new Regional Reference Centres.

ANNEX 1

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* Could not attend

ANNEX II

AGENDA

1. Opening of the Meeting.
2. Evaluation of the activities of the Regional Reference Centres on Cancer during 1977.
3. Review of new developments in cancer activity in Eastern Mediterranean countries during 1977.
4. Cancer priorities in countries of the Region.
   (i) Suggestions for co-operation in improving cancer infrastructures and cancer activities.
   (ii) How to develop a community approach for cancer programme in Eastern Mediterranean countries.
5. Programmes of activity of the Regional Reference Centres for the biennium 1978/1979.
6. Discussions and Conclusions.