

Comhairle na nOspidéal

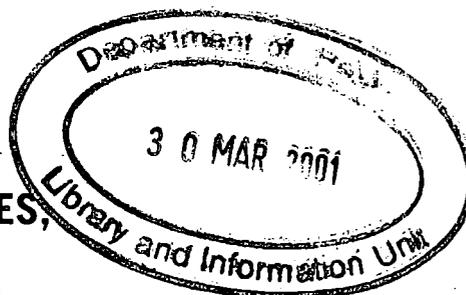
REVIEW OF TITLES, ROLES, TRAINING PATHWAYS AND QUALIFICATIONS OF CONSULTANT MEDICAL ONCOLOGISTS AND RADIATION ONCOLOGISTS (RADIOTHERAPISTS/CLINICAL ONCOLOGISTS)

REPORT OF THE REVIEW GROUP

**[Adopted by Comhairle na nOspidéal
at its meeting on 18th October 2000]**

Comhairle na nOspidéal

**REVIEW OF TITLES, ROLES,
TRAINING PATHWAYS
AND
QUALIFICATIONS
OF
CONSULTANT
MEDICAL ONCOLOGISTS
AND
RADIATION ONCOLOGISTS
(RADIOTHERAPISTS/CLINICAL ONCOLOGISTS)**



REPORT OF THE REVIEW GROUP

[Adopted by Comhairle na nOspidéal
at its meeting on 18th October 2000]

Comhairle na nOspidéal
Corrigan House, Fenian Street, Dublin 2

Tel: + 353 1 676 3474
Fax: + 353 1 676 1432
Email: info@comh-n-osp.ie

CONTENTS

	Page
1. Introduction	5
2. Titles	8
3. Information re Cancer Centres Visited	9
4. Distinguishing Features of each Specialty and Overlaps	11
5. Roles and Referral Patterns	13
6. Training Pathways and Qualifications	16
7. Numbers in each Specialty	23
8. Consultative process with Irish Training Bodies	24
9. Recommendations	27
10. Bibliography	30

1 - INTRODUCTION

- 1.1 Arising out of correspondence from St. Luke's Hospital, The Faculty of Radiologists and the Royal College of Physicians of Ireland, Comhairle na nOspidéal at its meeting on 25th February 2000, decided to carry out a review of the roles, training pathways, qualifications and titles of Medical Oncologists and Radiotherapists/Clinical Oncologists drawing on international best practice with a view to developing an appropriate policy for Ireland. A Review Group comprising the Chairman, Professor B. Drumm and the Chief Officer, Mr. T. Martin, was appointed to undertake this task. We were requested to visit and consult with the appropriate centres of expertise in North America, Europe and the UK; to consult with the appropriate bodies in Ireland; and to report to Comhairle na nOspidéal on the matter. We were also asked to concentrate on the roles of radiotherapists/clinical oncologists and medical oncologists in the care of cancer patients; the distinguishing features of each specialty; the overlaps, if any, between the two e.g. in relation to chemotherapy; the training pathways for each; and the examination/qualifications required to practice. Information and advice on likely future trends in each specialty were also to be sought.
- 1.2 Members of the Review Group visited major cancer centres in four countries – the USA, Canada, the Netherlands and Scotland and had discussions with appropriate personnel in each institution and were brought on a tour of each centre. These were the Sloan-Kettering Memorial Cancer Center, New York, USA; Princess Margaret Hospital, Toronto, Canada; the Netherlands Cancer Institute and the VU Hospital Amsterdam; and the Beatson Oncology Centre, Western Infirmary, Glasgow.
- 1.3 On completion of the fact-finding phase of the review, Comhairle na nOspidéal augmented the membership of the Review Group with the addition of Dr. D. Ormonde, Consultant Radiologist and Dr. T. Peirce, Consultant Physician. The expanded Review Group engaged in consultations with the appropriate professional bodies in Ireland i.e. the Faculty of Radiologists and the Royal College of Physicians of Ireland.

- 1.4 A list of the cancer centres visited and the doctors who participated in the discussions are set out below. The Review Group wishes to thank each of them who generously gave their time and expertise:-

A UNITED STATES OF AMERICA

Memorial Sloan-Kettering Cancer Center, New York

Dr. D. Golde, Physician in Chief

Dr. J. Dougherty, Deputy Physician in Chief

Professor B. Minsky, Radiation Oncologist.

B CANADA

Princess Margaret Hospital, Toronto

Dr. B. Cummings, Deputy Vice-President & Chief of Radiation Oncology

Dr. A. Keating, Chief of Medical Oncology and Haematology

Dr. J. Brierley, Consultant Radiation Oncologist.

C THE NETHERLANDS

The Netherlands Cancer Institute/Antoni Van Leeuwenhoek Hospital, Amsterdam

Professor H. Bartelink, Chief of Radiation Oncology and

Professor S. Rodenhuis, Chief of Medicine.

Department of Medical Oncology, University Hospital Vrije Universiteit

Professor H.M. Pinedo, Head of Department, Internist & Medical Oncologist

D SCOTLAND

Beatson Oncology Centre, the Western Infirmary, Glasgow

Professor A. Barrett, Professor of Clinical Oncology, Glasgow University and Consultant Radiotherapist/Clinical Oncologist. Professor Barrett is also a member of the European Board of Radiation Oncology.

Professor S. Kaye, Professor of Medical Oncology, University of Glasgow and Consultant Medical Oncologist, Western Infirmary.

1.5. The following issues were discussed:

- ◆ The roles of radiotherapists, clinical oncologists/radiotherapists, radiation oncologists in the care and treatment of cancer patients
- ◆ The role of medical oncologists in the care and treatment of cancer patients
- ◆ The referral patterns for cancer patients
- ◆ The distinguishing features of each specialty
- ◆ The overlaps, if any, between the two e.g. in relation to chemotherapy
- ◆ The training pathways for each specialty
- ◆ The examinations/qualifications required to practice
- ◆ The most appropriate title for each specialty
- ◆ Likely future trends

1.6. Section 2 identifies the titles used for the specialties in the countries visited. Section 3 gives a brief overview of the cancer centres visited. Sections 4 and 5 summarise the information and advice received. Section 6 describes the training pathways and qualifications required in the countries visited. Section 7 quantifies the numbers in each specialty and the ratios. The recommendations (set out in Section 9) were formulated following consultation with appropriate bodies in Ireland (see Section 8).

2 - TITLES

- 2.1 The titles currently in use in various countries to describe the specialties and specialists/consultants are set out below:-

Ireland:

Radiotherapist/Clinical Oncologist	Medical Oncologist
------------------------------------	--------------------

Great Britain:

Clinical Oncologist	Medical Oncologist
---------------------	--------------------

USA:

Radiation Oncologist	Medical Oncologist
----------------------	--------------------

Canada:

Radiation Oncologist	Medical Oncologist
----------------------	--------------------

Netherlands:

Radiation Oncologist	Medical Oncologist
----------------------	--------------------

- 2.2 The titles reflect the distinct nature of the specialties in most countries and the overlapping roles in the UK and to some extent in Ireland. The title Medical Oncologist is common to all the countries listed.

Radiotherapist/Clinical Oncologist is the current title in Ireland. Until 1992 Radiotherapist was the title used in Ireland. The title Clinical Oncologist is used in the UK. Radiation Oncologist is the title used in North America and most of Europe.

3 - INFORMATION RE CANCER CENTRES VISITED

- 3.1. Memorial Sloan-Kettering Cancer Center, established in 1884 is the world's oldest and largest private institution devoted to prevention, patient care, research and education in cancer. The Center has two operating organisations. The Hospital is a multidisciplinary cancer centre providing surgery, radiation oncology and medical oncology. The Sloan-Kettering Institute has major research and training roles. In 1999, there were over 18,000 admissions of which 1,300 were children and 325,000 outpatient visits.

- 3.2. In Sloan-Kettering, cancer patients are generally seen initially by the surgeon who refers the patient to either the medical oncologist or radiation oncologist. Strong emphasis was placed on multidisciplinary combined care between the various cancer specialists and sub-specialists in Sloan-Kettering. In Sloan-Kettering, super sub-specialisation is perceived as the key to excellence. There are 12 radiation oncologists in Sloan-Kettering including one paediatric radiation oncologist. There are about 20 medical oncologists. There are about 1.5 medical oncologists to every radiation oncologist in Sloan-Kettering.

- 3.3 Princess Margaret Hospital, along with its research arm the Ontario Cancer Institute, is one of the major comprehensive cancer centres in North America, treating over 6,000 cancer patients with radiation therapy each year on 17 radiation machines.

- 3.4. The Antoni Van Leeuwenhoek Hospital/Netherlands Cancer Institute is a 180 bed cancer hospital, one of 10 comprehensive cancer centres in Holland. There are about 120 hospitals in Holland (population 15 million). There are 22 radiotherapy units of various sizes in Holland. The University Hospital is a major general teaching hospital in Amsterdam. Radiation oncologists and medical oncologists in the Netherlands visit peripheral hospitals for case conferences. Some satellite units have become de facto independent radiotherapy departments.

3.5 There are 5 cancer centres in Scotland (population 5.1 million) located at Glasgow, Edinburgh, Dundee, Aberdeen and Inverness. Four are regarded as comprehensive centres – the exception being Inverness. The Beatson Oncology Centre at the Western Infirmary, Glasgow is the largest. It serves a population of about 3 million. It is staffed by 17 clinical oncologists and 4 medical oncologists and has 8 radiotherapy machines. It serves 13,500 cancer patients per annum of which about 6,000 require radiotherapy. Edinburgh also has 8 machines and similar staffing to Glasgow but serves a smaller population. Dundee has 5 clinical oncologists and 2 medical oncologists. Specialist out-patient clinics are held in district hospitals within their catchment area by consultants based at the Western Infirmary.

4 - DISTINGUISHING FEATURES OF EACH SPECIALTY AND OVERLAPS

UNITED STATES OF AMERICA

- 4.1. Radiation oncology and medical oncology are quite distinct specialties in the USA with separate but complementary roles, separate training requirements and qualifications. The specialty of radiation oncology grew out of radiology which split into diagnostic radiology and radiation therapy. Medical oncologists train initially in general internal medicine and then in medical oncology.
- 4.2. The unanimous view of those consulted in Sloan-Kettering was that a combined specialty of radiotherapy/clinical oncology as in the UK was not appropriate for the future given the level of expertise and knowledge required and the quite different skills and training needed to practice at the highest level in each specialty.

CANADA

- 4.3. Radiation oncology has been a distinct specialty in Canada since 1934 and was known as therapeutic radiology until 1974. While radiation oncology and medical oncology are separate specialties in Canada, some radiation oncologists who received some/all their training in the UK (or New Zealand where Dr. Cummings originated) continue to administer chemotherapy. While Dr. Cummings personally favoured this approach, he recognised that this was now a minority view in Canada and that in future radiation oncologists would not perform this task. The majority of graduates in radiation oncology are no longer competent administering chemotherapy. It forms a very small part of their training. The number of general physicians (Internists) administering chemotherapy is also rapidly declining even though the right of every MD to do so is retained.
- 4.4. The general view conveyed to the Review Group was that any specialist qualification should stand on its own, otherwise it's a reflection on the specialty. In Canada, there are now two distinct specialties of radiation oncology and medical oncology with separate training programmes and career paths. Medical oncologists are trained in general internal medicine first and in medical oncology afterwards.

GREAT BRITAIN

- 4.5. Traditionally in the UK, clinical oncologists were radiotherapists who also treated cancer with chemotherapy. This is largely the position today in the UK also unlike the rest of Europe (other than Scandinavia), North America and Australia. Medical oncologists, who are relatively new in the UK, were originally perceived as research orientated and to-date half of such posts have a significant research component e.g. 50% clinical and 50% research.

NETHERLANDS

- 4.6. In the Netherlands, radiation oncology and medical oncology are and have been separate and distinct specialties with well-defined distinct roles, training pathways and qualifications. In Holland, a medical oncologist is a general internal medicine physician first who then specialises in medical oncology.

5 - ROLES AND REFERRAL PATTERNS

UNITED STATES OF AMERICA

- 5.1. In the USA, most patients are referred to radiation oncologists by either surgical oncologists or medical oncologists. Patients are generally under the overall care of medical oncologists who organise their inputs from radiation oncologists and surgical oncologists.
- 5.2. Generally in the USA, chemotherapy is provided by medical oncologists, even though technically and legally any qualified physician can do so. Some gynaecologists who specialise in gynaecological oncology also administer chemotherapy in the USA.
- 5.3. Radiation therapy is used for two main purposes:
- Palliative i.e. to relieve pain;
 - Curative, often requiring daily treatment over many weeks;
- Patients may often receive chemotherapy at the same time as radiation therapy. This trend of combined modality therapy is likely to increase. Ideally such combined treatment should be delivered on one rather than two different hospital sites. About 50% of all cancer patients receive radiation therapy at some stage.

CANADA

- 5.4. The two specialties have complementary roles in the care of cancer patients in association with general surgeons, ENT surgeons, gynaecologists, haematologists etc. where appropriate. Reference was made to the increasing trend towards more intensive therapies whereby the physician requires a very good knowledge of internal medicine. Such therapies, including chemotherapy, will only be administered by doctors who are competent in dealing with the potential complications of such treatments. Medical oncologists often participate in the general medical (internist) on-call rotas in Canada whereas radiation oncologists don't.

NETHERLANDS

- 5.5. In the Netherlands, 95% of radiotherapy patients are dealt with on an out-patient basis. The radiation oncologist spends most of his/her time at out-patient clinics, treatment planning and physics. There is a growing trend towards joint treatment by radiation oncologists and medical oncologists. The chemotherapy is administered by medical oncologists and the radiotherapy by radiation oncologists. Radiation oncologists do not administer chemotherapy. Some respiratory physicians and gynaecologists in Holland administer chemotherapy.
- 5.6. The practice in the UK and Scandinavia whereby the clinical oncologist provides both therapies was not supported by the Dutch experts. Reference was made to international comparisons of cancer patients survival rates which indicated that UK survival rates are generally lower than in Europe and the USA. A recent BMJ editorial on cancer survival in Britain commenting on the Eurocare-2 study has noted that the British survival figures are well below the European average and that the reasons are not clear. Continuity of care in the UK was regarded by the Dutch specialists as better than in Holland where it was often not clear to the patient or the doctor who was in charge of the patient and his/her overall treatment.
- 5.7. In the Netherlands, patients are referred by General Physicians/Internists or Surgeons to Medical Oncologists. There are also a small number of general physicians who have a special interest in medical oncology.

GREAT BRITAIN

- 5.8. Clinical oncologists in the UK have large day to day clinical practices and give chemotherapy as part of their normal practice. They are trained to do so. Some concentrate mainly on clinical oncology, others on radiotherapy. It was stated by the Scottish consultants that most chemotherapy is straightforward. Medical oncologists generally treat the less common cancers and provide the newer therapies and engage in research. There are generally not many demarcation disputes between the two specialties even though they overlap considerably. Management of cancer patients can be undertaken by either consultant type.

- 5.9. Posts of general physician with a special interest in oncology are becoming increasingly rare in the UK. Some respiratory physicians still administer chemotherapy to patients with lung cancer. Some gynaecologists also administer chemotherapy. The Glasgow consultants expressed concern at these practices.
- 5.10 In the primary phase of most cancers, the clinical oncologist is usually heavily involved. In some cancers where the role of radiotherapy is fairly limited, the medical oncologist has the main role. In the UK cancer patients can be managed by clinical oncologists or medical oncologists. A patient may be treated by a clinical oncologist without interacting with a medical oncologist whereas the opposite will not apply where radiotherapy is required. It was suggested that the best results were derived from the multidisciplinary approach.
- 5.11 The Glasgow consultants recognised that the UK system is different to most other countries and accepted that they will not persuade these other countries to move in their direction. They spoke of the importance of doctors understanding how radiation therapy and drug therapy interact. They both emphasised that whatever system was in use, it was vital that any consultant administering chemotherapy would have a significant training in general internal medicine and would hold the MRCP or equivalent. While the MRCP was not officially mandatory to train as a clinical oncologist in the UK until October 2000, due to competitive factors all successful candidates for training posts in clinical oncology have had the MRCP. Moreover, a doctor would not get a consultant post as a clinical oncologist in Scotland or elsewhere in the UK without having the MRCP as well as having completed training in clinical oncology and having acquired the FRCR. The reasoning advanced for making the MRCP de facto essential was that it ensured that candidates have had a certain amount of training in general internal medicine. They advised that if clinical oncologists want to administer chemotherapy, they must have the MRCP. The need to keep up to date with developments in oncology was stressed.

6 – TRAINING PATHWAYS AND QUALIFICATIONS

UNITED STATES OF AMERICA

- 6.1. Postgraduate medical training in the USA is overseen by the Accreditation Council for Graduate Medical Education (ACGME). The American Board of Internal Medicine certifies training in internal medicine and its sub-specialties/associated specialties and organises examinations. Relevant extracts from the Graduate Medical Education Directory 2000 – 2001 published by the Accreditation Council for Graduate Medical Education (ACGME) were studied by the Review Group.
- 6.2. The training pathways for the different specialties are as follows:-

A. Medical Oncologist

3 years residency in internal medicine

Certification in internal medicine by the American Board of Internal Medicine

2 years fellowship training in medical oncology

In the USA, medical oncologists are Board certified in internal medicine and medical oncology.

B Haematologist/Oncologist

3 years residency in internal medicine

3 years full-time combined fellowship training in haematology and medical oncology or

2 years training in each specialty for dual certification.

C Haematologist

3 years residency in internal medicine

2 years fellowship training in haematology

D. - Radiation Oncologist

The ACGME (Accreditation Council for Graduate Medical Education) document entitled "Programme requirements for residency education in radiation oncology" defines the specialty as follows:

"Radiation oncology is that branch of clinical medicine that utilises ionising radiation to treat patients with cancer and occasionally with diseases other than cancer. Radiation oncologists are an integral part of the multidisciplinary management of the cancer patient and must collaborate closely with physicians in related disciplines and be familiar with their role in the management of the patient".

The training requirements and qualifications are as follows:-

Radiation Oncologist

1 year in medicine, surgery, paediatrics, obstetrics/gynaecology or family practice;
4 years radiation oncology residency. This can include some months spent rotating through haematology/medical oncology and surgical oncology. Up to 1996, residency training was a minimum of 3 years.

Qualification required: Certification in radiation oncology by the American Board of Radiology.

CANADA

- 6.3 Postgraduate medical training in Canada is governed by the Royal College of Physicians and Surgeons of Canada. The training requirements in the specialties of internal medicine, medical oncology and radiation oncology were studied by the Review Group.

Medical Oncologist

Only candidates certified in internal medicine by the Royal College of Physicians and Surgeons of Canada may be eligible for the Certificate of Special Competence in Medical Oncology.

- 6.4. An internist is defined by the Royal College of Physicians and Surgeons of Canada (RCPSC) in the following terms:-

"An internist is a specialist trained in the diagnosis and treatment of a broad range of diseases involving all organ systems and is especially skilled in the management of patients who have undifferentiated or multisystem disease processes. An internist cares for hospitalised and ambulatory patients and may play a major role in teaching or research".

- 6.5. The specialty training requirements for internal medicine are a minimum of 4 years of approved residency to include:

- (i) 3 years core residency
- (ii) 1 year in a sub-specialty area or a related area

On gaining Royal College Certification in Internal Medicine, 2 years approved residency in medical oncology is then required in order to be certified as a medical oncologist. The RCPSC have stated *"During the course of training in medical oncology the resident must acquire a high degree of clinical competence in the investigation and management of patients with the spectrum of neoplastic diseases and their complications, together with an understanding of the basic scientific principles which relate to cancer and its treatment, particularly the chemical, hormonal and immunologic approaches. The resident must develop the ability to function as a specialist consultant in an inpatient and ambulatory setting and as a part of a multidisciplinary team in cancer management. Development of expertise in the relevant investigative methods, technical skills and communicative interpersonal relationships is essential, together with skill in the collection and interpretation of data and decision making".*

6.6 **Radiation Oncologist**

The Royal College of Physicians and Surgeons of Canada have stated that *"The specialist in radiation oncology must possess clinical competence in oncology and technical proficiency in the therapeutic uses of radiation. The radiation oncologist must have a sound background in the sciences basic to the understanding of malignant disease and its treatment by radiation therapy and other modalities. The acquisition of clinical skills in patient assessment and management, developed by undertaking responsibility for the care of both hospitalized and ambulatory patients, must be accompanied by proficiency in planning and executing radiation treatments utilizing external beams, intracavitary and interstitial radioactive sources, and radionuclides".*

The specialty training requirements are:-

5 years of approved training including:

1 year of approved basic clinical training

3 years of approved resident training in radiation oncology

1 year, which will include:

6 months training in internal medicine which may include up to 3 months in haematology/oncology, and

6 months training in related areas.

NETHERLANDS

- 6.7 Radiation oncology and medical oncology are separate specialties in Holland with distinct training pathways and qualifications.

Medical Oncologist

- 6.8. The training pathway for a Medical Oncologist requires:

1½ years as an Intern

6 years in internal medicine of which 1 - 1½ years are spent in medical oncology.

Medical oncology is a sub-specialty of internal medicine as are nephrology, endocrinology, haematology etc. Gastroenterology and cardiology are separate specialties which require 3 years specialist training after 3 years training in internal medicine.

To qualify as a general practitioner requires two years training after 1½ years as an Intern.

Radiation Oncologist

- 6.9. The training pathway for a Radiation Oncologist usually consists of :

1½ years as Intern before being licensed to practice as a doctor

1- 2 years in various specialties

5 years specialist training in radiation oncology of which up to 6 months can be in related areas.

GREAT BRITAIN

6.10 The British training programmes reflect the roles of clinical oncologists and medical oncologists in the UK: The Faculty of Clinical Oncology, Royal College of Radiologists is responsible for specialist training in clinical oncology. The Joint Committee on Higher Medical Training is responsible for specialist training in medical oncology. During the first two years of specialist training, trainees in the two specialties follow a similar clinical training programme via a common core curriculum in medical and clinical oncology. This core curriculum has been developed by the Royal College of Physicians, London and the Royal College of Radiologists through the Joint Council for Clinical Oncology and has been adopted by the JCHMT-SAC. Currently, there are two distinct training schemes in medical oncology and clinical oncology with no transferability of national training numbers.

6.11 The Joint Committee on Higher Medical Training has described medical oncology in the following terms:-

“Medical oncology ... began very much as a small research orientated specialty and clinical research remains an important feature of its activities. Over the last 20 years, enormous developments have taken place in the medical management of cancer, particularly in the development of orthodox therapies for the common solid tumours. Today medical oncology is a broadly-based clinical specialty with the responsibility to ensure that state-of-the-art therapies of established efficacy for the common cancers are delivered on a national basis, within a framework of care for the patient as an individual. Medical oncologists nowadays with increasing frequency see patients at the outset of their disease for consideration of adjuvant and preoperative (neoadjuvant) therapies. They must therefore be trained to work as part of a multidisciplinary team, able to advise on all aspects of treatment including surgery and radiotherapy as well as having the skills in training to deliver specialist medical therapy”.

6.12. Clinical oncology is defined in the Royal College of Radiologists document entitled “Structured Training in Clinical Oncology” as follows:-

“Clinical oncology is a specialty which has developed from Radiotherapy. Doctors in this field now have a broad based training in all aspects of cancer science and treatment. They will frequently see patients at the onset of their disease and will advise on all aspects of treatment including surgery. During the course of their day to day practice they will supervise the administration of radiotherapy, chemotherapy, biological therapy and radionuclide therapy. They will have complete clinical control of patients under their care and will advise and supervise palliative, supportive and terminal care when appropriate.

This broad responsibility is unlike that of their counterparts in many other European countries and North America where doctors commonly practise exclusively as either radiotherapists (radiation oncologists), medical oncologists or palliative care physicians. This difference is necessarily reflected in the type and length of the training required. Comparisons with programmes in other countries must be made with care”.

A Career Focus on Clinical Oncology article in the BMJ noted that

“Historically, clinical oncologists were generalists in the management of oncological conditions, treating patients with systemic cytotoxic chemotherapy and radiotherapy, whereas the traditional role of medical oncologists, who administer chemotherapy alone, was mainly research based, operating within university departments or charity funded groups. With the advances in cancer treatments and the publication of the Calman Hine report, however, the position of both specialists has evolved – clinical oncologists becoming increasingly site specialised and medical oncologists expanding their practice to cancer units at district general hospitals”

The article also noted that *“The Joint Committee for Clinical Oncology, which has representatives from the Faculty of Clinical Oncology of the Royal College of Radiologists and for medical oncology from the Royal College of Physicians, was set up over a decade ago to provide greater links between the two disciplines”.*

6.13. The training pathway for a medical oncologist in the UK comprises:-

- ◆ 1 year PRHO i.e. Intern
- ◆ 2 years General Professional Training “which must involve direct patient care and at least 6/12 months of this should be concerned with acute unselected medical intake. A period of experience in medical oncology at SHO grade is considered desirable, although not essential, before entry to HMT. An essential pre-requisite in Higher Specialist Training is the attainment of the MRCP (UK) or (I)”.
- ◆ 4 years Higher Medical Training in Medical Oncology the first 2 of which consist of the common core curriculum with clinical oncology.

6.14. The ICHMT has stated that *“the Specialist Training Programme in Medical Oncology will comprise two phases with a basic and higher component. During the first phase, which will last 2 years, medical oncology trainees will follow a similar knowledge-based, theoretical training programme to clinical oncologists. During this 2-year period, the*

trainee will be expected to gain basic clinical skills in the main tools of non-surgical cancer management, including chemotherapy, radiotherapy, palliative medicine, including symptom control, the common complications of malignancy and the common side effects and toxicities of treatment..... An integral part of structured training in medical oncology will be the core curriculum common to the first two years of training in both medical and clinical oncology..... In total therefore, the Structured Training Programme will involve a minimum of 4 clinical years, with the recommendation of an additional 2-3 years in a research project for most trainees".

6.15: The training pathway for a Clinical Oncologist in the UK comprises:-

1 year PRHO i.e. Intern

2 years General Professional Training in a variety of clinical specialties

5 years Specialist Training of which:

3 years basic phase followed by attainment of final FRCR plus

2 years higher phase incorporating site specialisation experience.

"Although post registration experience in general medicine is especially valuable, the attainment of the MRCP or any other higher qualification, is not a necessary component of this training programme". However, most trainees enter clinical oncology after the acquisition of the MRCP. The MRCP is not yet mandatory, but from October 2000 it will be the minimum entry requirement unless the applicant can show equivalent training.

6.16. The Joint Council for Clinical Oncology, which has representatives from the Faculty of Clinical Oncology of the Royal College of Radiologists and from the Royal College of Physicians was set up over a decade ago to provide greater links between the two specialties. The joint council has proposed the creation of a joint specialty with a common core training. The Calman Hine Report "A Policy Framework for Commissioning Cancer Services" (London; Department of Health, April 1995), welcomed the move towards closer integration and stated that *"The essential contribution which medical oncologists from the Royal College of Physicians and Clinical Oncologists from the Royal College of Radiologists make to the management of cancer may overlap"*.

6.17. Concerns were expressed by the Glasgow consultants about the current specialist training system generally in the UK whereby aspiring consultants could do all their training not just in the one country such as Scotland but solely in one hospital.

7 - NUMBERS IN EACH SPECIALTY

- 7.1. There are about 4,000 radiation oncologists in the USA (of which about 6 are paediatric radiation oncologists. There are about 400 residents (i.e. trainees) in the specialty.
- 7.2. There are about 40 radiation oncologists and 80 medical oncologists in the province of Ontario - which includes Toronto. In Canada, there are about 400 medical oncologists and 220 radiation oncologists – a ratio of 2 : 1. In 1974, there were about 20 medical oncologists and 120 radiation oncologists – a ratio of 1 : 6. The rapid growth in the number of medical oncologists vis-à-vis radiation oncologists was noted.
- 7.3. There are 250 radiation oncologists in Holland, and a similar number of medical oncologists.
- 7.4. In England, there are 300 clinical oncologists and 110 medical oncologists. There are 34 clinical oncologists and 10 medical oncologists in Scotland.
- 7.5. There are 10 posts of consultant radiotherapist/clinical oncologist and 15 posts of medical oncologist in Ireland. The numbers of medical oncologists have grown significantly over the past few years. For many years, up to 1997, there had been 4 posts of consultant medical oncologist. There were 8 posts of consultant radiotherapist/clinical oncologist until recently.

8 – CONSULTATIVE PROCESS WITH IRISH TRAINING BODIES

Consultative Process

- 8.1 Following consultations with and visits to appropriate clinicians in various centres of expertise in the US, Canada, Britain and the Netherlands, the Comhairle Review Group consulted with the Faculty of Radiology of the Royal College of Surgeons in Ireland and the Royal College of Physicians of Ireland (RCPI) with a view to finalising an appropriate policy – drawing on international best practice – for Ireland.
- 8.2 A meeting took place between representatives of the Radiotherapy section of the Faculty of Radiology of the RCSI, representatives of the RCPI and the Comhairle Review Group on 13th September 2000 in Corrigan House. A large measure of consensus was achieved at the meeting regarding the way forward for Ireland.

The draft report (sections 1-7) had been circulated to those present prior to the meeting. Representatives of both the Faculty and the RCPI acknowledged the value of the information and advice received from international sources which was set out in the draft report.

Trends in Ireland

- 8.3 At the meeting, it was agreed that the relationship between the two specialties in Ireland was changing and that the recommendations of the Cancer Strategy and the National Cancer Forum had resulted in a rapid increase in the number of consultant medical oncologists and consequently, a significant change in the ratio of medical oncologists to radiotherapists / clinical oncologists and a long term change in the work patterns of the latter.
- 8.4 It was acknowledged that radiotherapy / clinical oncology and medical oncology were distinct and separate specialties in Ireland. However, given the small number of consultant medical oncologists in Ireland until recently, consultant radiotherapists / clinical oncologists administered chemotherapy to varying degrees. Up to 1992, the title used in Ireland had been "Consultant Radiotherapist". It was then changed to

"Consultant Radiotherapist / Clinical Oncologist" to reflect existing practice and the minimum qualifications for consultant posts were amended to include possession of the MRCPI. Two replacement posts with the revised titles and dual qualifications were approved by Comhairle in 1992 and subsequently filled. In 1999, four posts – two new and two additional – were approved on the same basis. Subsequent correspondence (see paragraph 1.1) led to the establishment of this Review Group.

- 8.5 Discussion centred on the evolving roles of the two specialties in Ireland and the most appropriate future roles, titles and qualifications for consultant posts in the two specialties. It was stressed that in the UK, the role of the clinical oncologist overlapped much more with that of the medical oncologist than had ever been the case in Ireland. The overlaps in the UK are reflected in the titles of the specialties – clinical oncology and medical oncology - and the common core curriculum used in higher specialist training. It was accepted by the professional bodies at the meeting that these models of practice and training are not the way forward for Ireland – where North American and mainland European influences are greater than in the UK. It was noted that in practice, the majority of consultant radiotherapists / clinical oncologists in Ireland did not deliver chemotherapy in the same context as a clinical oncologist in the UK. Their role in the delivery of chemotherapy depended on the individual consultant's training and practice, the needs of the patient, and the availability of a consultant medical oncologist. It was accepted that those who obtained a lot of their training in radiotherapy in the USA or mainland Europe would not see themselves as having a role in administering chemotherapy.

Training in Ireland

- 8.6 In addition to regulating consultant appointments in Ireland, Comhairle na nOspidéal also regulates senior registrar/specialist registrar appointments. To date, there have been no requests from the relevant training bodies for such posts in radiotherapy/clinical oncology or medical oncology.

8.7 Radiotherapy/Clinical Oncology

While there is a training programme in existence – at St Luke's Hospital - there are no posts of Senior Registrar or Specialist Registrar in radiotherapy / clinical oncology in Ireland to date. To enter the 3 – 4 year training programme in St. Luke's Hospital, candidates must have completed a minimum of one year post full registration general

medical training. In 1993, the MRCPI was required for entry to the training programme. In 1996 and 1999, the rules were modified to include other qualifications such as MD, FRCSI and MRCPI – part 1. However, all trainees from the early 1990's have acquired the MRCPI. The MRCPI was regarded as important evidence of general medical training for administering chemotherapy, as an intellectual barometer for entrants to specialist training in radiotherapy and as a mechanism for Irish trainees to gain access to UK training programmes in clinical oncology. There are currently four trainees – at registrar level – undertaking the Fellowship in Radiotherapy/Clinical Oncology. There are also six post Fellowship Registrars at St. Luke's Hospital. Up to recently, there were six consultant posts in St. Luke's and two in Cork University Hospital.

8.8 Medical Oncology

A higher specialist training programme in medical oncology has not yet been established in Ireland. Consideration is being given to the matter by the RCPI and the ICHMT. Until recently, there were four posts of consultant medical oncologist in Ireland.

9 - RECOMMENDATIONS

- 9.1 As a result of the information gained from the international consultative process and consultation with the professional bodies involved in cancer care in Ireland, the Review Group has made a number of recommendations. The Review Group wishes to emphasise that it is not suggesting that the clinical practice of current permanent post holders will have to change. Instead, it is noted that both specialties are in a period of transition whereby changes in the training of radiotherapists internationally and the increasing numbers of consultant medical oncologists (which have grown from 4 to 15 over the past four years) will impact on clinical practice in Ireland in a number of ways over the next few years.
- 9.2 It is noted that while the two specialties have complementary roles in the care of cancer patients in association with surgeons, gynaecologists, haematologists etc, trends in both specialties are towards more complex and specialised therapies. In this context, it is recommended that - in future - where chemotherapy is the dominant or primary treatment modality in the care of the patient, best practice would be that such chemotherapy should be delivered by a consultant medical oncologist.

Evolving nature of specialty in Ireland

- 9.3 The Review Group notes the Faculty of Radiologists suggestion that a suitable definition of the core competencies and duties of a "Consultant Radiation Oncologist" in Ireland might be similar to that contained in the Royal College of Physicians and Surgeons of Canada document. This states that *"The specialist in radiation oncology must possess clinical competence in oncology and technical proficiency in the therapeutic uses of radiation. The radiation oncologist must have a sound background in the sciences basic to the understanding of malignant disease and its treatment by radiation therapy and other modalities. The acquisition of clinical skills in patient assessment and management, developed by undertaking responsibility for the care of both hospitalized and ambulatory patients, must be accompanied by proficiency in planning and executing radiation treatments utilizing external beams, intracavitary and interstitial radioactive sources, and radionuclides"*.

9.4 The evolving nature of the specialty in Ireland is recognised and in this context it is envisaged that future practice in Ireland would be broadly similar to that which is taking place in Canada and the Netherlands. The two specialties have complementary roles in the care of cancer patients. Radiation oncology and medical oncology are now distinct specialties with separate training programmes and training pathways. Medical oncologists are trained in general internal medicine first and in medical oncology afterwards. The increasing trend is towards more intensive therapies whereby the clinician requires a very good knowledge of internal medicine. Such therapies, including chemotherapy, will only be administered by doctors who are competent in dealing with the potential complications of such treatments.

Titles

It is recommended that the appropriate titles to be used in Ireland henceforth for consultant posts in the two specialties would be "Radiation Oncologist" (replacing Radiotherapist / Clinical Oncologist) and "Medical Oncologist" (to remain unchanged).

Qualifications for Posts of Consultant Radiation Oncologist

9.6 It is recommended that Comhairle na nOspidéal henceforth specify the following qualifications for posts of consultant radiation oncologist:

(a) Full registration in the General Register of Medical Practitioners or entitlement to be so registered

and

(b) The possession of the Fellowship of the Faculty of Radiology of the Royal College of Surgeons in Ireland (FFR, RCSI) or a qualification in radiation oncology at least equivalent thereto

and

(c) (i) inclusion on the division of radiation oncology of the Register of Medical Specialists maintained by the Medical Council in Ireland

or

(ii) Seven years satisfactory postgraduate training and experience in the medical profession including four years in radiation oncology.

- 9.7 It is recommended that the requirement for the MRCPI or equivalent should no longer be specified by Comhairle na nOspidéal for consultant posts in this specialty. The revised qualifications set out above reflect the evolution of the specialty in Ireland away from the UK model and towards models of training, qualification and service delivery which apply in North America and most of Europe.
- 9.8 It is recommended that Comhairle na nOspidéal advise the Medical Council, the Department of Health & Children and other appropriate agencies of the change of title and qualifications which has been agreed with the Faculty of Radiology and the Royal College of Physicians of Ireland. It is noted that it is for the Faculty of Radiology to review its training programme in the light of this report.

18th October 2000

10 - BIBLIOGRAPHY

IRELAND

Consultant Staffing Levels in Radiodiagnosis and Clinical Oncology/Radiotherapy Republic of Ireland

Faculty of Radiologists, Royal College of Surgeons in Ireland 1993

BRITAIN

Structured Training in Clinical Oncology

Education Board of the Faculty of Clinical Oncology,
The Royal College of Radiologists – 1995

Training Handbook

Joint Committee on Higher Medical Training
Royal College of Physicians. London, July 1996

Curriculum for Specialist Training in Medical Oncology

Joint Committee on Higher Medical Training,
Royal College of Physicians, London – July 1998 and updated July 2000

A Policy Framework for Commissioning Cancer Services – A Report of the Expert Group on Cancer to the Chief Medical Officers of England and Wales (Calman – Hine Report)

Department of Health & The Welsh Office – April 1995

Career Focus: Medical Oncology

Brown J, McIlmurray M, British Medical Journal 2000; 320: S2-7236 (11 March)

Career Focus: Clinical Oncology

Brammer C, Gerrard G, MacDonald R, British Medical Journal 1998; 317 (15 August)

Editorial: Cancer Survival in Britain

Sikora K, British Medical Journal 1999; 319: 461-462 (21 August)

Letters: Cancer Survival in Britain

de Takats et al. bmj.com 319 (7224): 1572

**Waiting times for cancer patients in England after general practitioners' referrals:
retrospective national survey**

Spurgeon P, Barwell F, Kerr D, *bmj.com* 320 (7236)

CANADA

Objectives of Training and Specialty Training Requirements in Medical Oncology

The Royal College of Physicians and Surgeons of Canada – 1987. Revised 1993.

Objectives of Training and Specialty Training Requirements in Internal Medicine

The Royal College of Physicians and Surgeons of Canada – September 1994

Objectives of Training and Training Requirements in Radiation Oncology

Royal College of Physicians and Surgeons of Canada – April 1998

EUROPE

Cancer Survival in Europe

From: **Survival of Cancer Patients in Europe: The EURO CARE-2 Study**

Scientific Publications No. 151, 1999, ISBN 92 832 2151 6

International Agency for Research on Cancer, Lyon, France – 1999

The Survival of Cancer Patients in Europe : The EURO CARE Study

Rotterdam Cancer Registry, Netherlands – 2000

The Department of Medical Oncology Annual Report 1996 – 1997

University Hospital Vrije Universiteit, Amsterdam

UNITED STATES OF AMERICA

Program Requirements for Residency Education in Internal Medicine

American Council for Graduate Medical Education – September 1999, effective July 2000.

Program Requirements for Residency Education in Oncology (Internal Medicine)

American Council for Graduate Medical Education – June 1998, effective July 1999

Program Requirements for Residency Education in Radiation Oncology

American Council for Graduate Medical Education – June 1999,
effective September 1999

**New Specialty Requirements for Radiation Oncology Residencies approved by Residency
Review Committee of American Council for Graduate Medical Education**

Donaldson S, American Board of Radiology - 1995

Training Requirements (Radiation Oncology)

The American Board of Radiology – 1997

SEER Cancer Statistics Review 1973-1997

Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Edwards BK (eds)
National Cancer Institute, Bethesda, Maryland – 2000

Memorial Sloan Kettering Cancer Center. Annual Report – 1999

