



**Royal College
of Physicians**



JOINT COLLEGIATE COUNCIL FOR ONCOLOGY

Guide to the non-surgical oncology team

The JCCO is the coordinating intercollegiate body for non-surgical oncology, and has issued this statement to assist colleagues in their understanding of the nature of the work undertaken by these various oncological disciplines. A number of senior healthcare colleagues within provider and commissioner organisations and within central Department of Health organisations have recently expressed some uncertainty about the distinction between the complementary disciplines of clinical oncology and medical oncology. These two specialist groups, together with clinical haematologists, and paediatric haematologists and oncologists, provide the vast majority of non-surgical cancer care across the UK.

Non-surgical oncology treatment modalities include radiotherapy and systemic therapies. Radiotherapy includes conventional external beam and electron radiotherapy, proton radiotherapy, brachytherapy and molecular radiotherapy (unsealed source therapy). Systemic therapies include chemotherapy, endocrine therapy and targeted biological therapies (such as antibodies, small molecules including tyrosine kinase inhibitors and immunotherapy).

As listed above, there are a number of different medical specialties who provide non-surgical oncology services to adults and children. Whilst there is some overlap, each discipline has its unique set of clinical skills. In the vast majority of circumstances the best clinical service is provided by a multi-disciplinary team (MDT) that includes representation from more than one of these specialties together with surgical oncologists, radiologists and histopathologists.

In general, an oncologist specialises in a limited number of disease sites or tumour types. A clinical or medical oncologist in adult practice would normally treat cancers in no more than 3 areas of tumour site specialisation.

Clinical Oncologists

Clinical oncologists are specialist physicians who are trained in the care of the full range of malignant diseases in adults, and in some teenage and young adult, childhood and haematological malignancies. They are the only specialist group trained in the assessment of patients for radiotherapy and treatment of patients with radiotherapy. They are the only medical specialists qualified to prescribe radiotherapy. Clinical oncologists are also trained in the use of systemic therapies in the management of cancer. Many clinical oncologists regularly deliver both systemic therapy and radiotherapy, either as single or sequential single modality therapies or, in some indications, concomitantly in combination (chemoradiotherapy). These patterns vary to ensure appropriate patterns of care required for different areas of tumour site specialisation, particularly the demand for highly complex advanced radiotherapy techniques. They also depend upon the availability of overlapping and complementary skills mix in other health care professionals.

Many clinical oncologists will have undertaken a substantive period of clinical or basic research during their training and some will have a research degree (MD or PhD). Clinical oncologists are active in clinical trials, within both systemic therapy and radiotherapy practice. Some clinical oncologists follow academic careers, more commonly in the development of radiotherapeutic techniques, novel radiotherapy schedules or in combination with systemic therapies. Some also have academic roles in drug development or basic cancer biology.

Medical Oncologists

Medical oncologists are physicians who specialise in the management and treatment of patients with cancer, but in particular specialise in the administration of systemic therapies. Medical oncologists train in the care of the full range of malignant diseases in adults, and in some teenage and young adult and haematological malignancies. They do not prescribe or administer radiotherapy treatments. Their primary goal is to ensure ongoing advances in systemic therapy options for cancer patients, by placing considerable emphasis on clinical trials, drug development and academic research.

Medical oncology training therefore focuses not only on the development and provision of systemic therapies, but also translational research (the interface between basic science and clinical therapies) relating to systemic therapy. Clinical trials of new agents within early phase I and II development are primarily developed and supervised by medical oncologists, and some medical oncologists divide their workload between translational and clinical research in academic appointments. All medical oncologists are expected to be actively involved in the recruitment of patients into clinical trials of new agents, even if they are not directly involved in the design and conduct of such studies.

The majority of medical oncologists will have undertaken a formal period of research during their training leading to the award of a higher degree (MD or PhD), and many of these oncologists maintain an active role in clinical, translational or laboratory-based research as part of an academic clinical appointment. However, some medical oncologists do not undertake higher academic training and, as specialists, are dedicated to the provision of care for oncology patients where systemic therapy plays a major role in the patients' management.

Clinical Haematologists (Haemato-oncologists)

Haematologists have key responsibilities for both the laboratory diagnosis and clinical care of patients with both malignant and non-malignant haematological conditions. Most patients with cancers originating within cells of the blood, bone marrow or lymph nodes are investigated and managed by haematologists. Some systemic therapies, particularly for lymphomas, are provided by medical and/or clinical oncologists. Clinical oncologists are core members of haematology MDTs, to ensure that patients have appropriate access to radiotherapy. In childhood haematological malignancies, paediatric oncologists may also be involved in the patient's management.

Previously haematologists have provided out-of-hours care for all patients with post-chemotherapy neutropenia, including for solid cancers. With the development of more robust acute oncology services (see below) this is becoming less common, as management of the range of complications patients experience following systemic therapy for solid tumours is becoming more complex.

Paediatric Oncologists and Haematologists

The systemic cancer care for children is provided mainly by specialist paediatricians who have undertaken specialist higher training in paediatric oncology or haematology. These services are almost exclusively provided within cancer centres and/or children's hospitals often with some liaison services provided by local paediatricians in hospitals designated for shared care. The degree of specialisation by tumour site varies according to the size and organisation of individual treatment

centres, but most paediatric oncologists cover a wide range if not all of the cancers occurring in children. Clinical oncologists work with paediatric oncologists and haematologists as part of the MDT in cases requiring radiotherapy. Many paediatric oncologists will have undertaken a formal period of research during their training leading to the award of a higher degree (MD or PhD), and most maintain an active role in clinical and/or translational research.

Teenage and Young Adult Services

Teenagers and young adults are managed by MDTs within cancer centres, by teams including paediatric oncologists, medical oncologists, clinical oncologists and clinical haematologists. These teams are based within regional cancer centres, but cooperate with and link with specialist cancer-site multidisciplinary teams throughout the cancer network.

Clinical Research within Clinical Practice

It is recognised that the outcome for patients with cancer in the UK is not as good as that in some other developed countries. To address this, the National Cancer Research Network expects that all practising non-surgical oncologists contribute to the recruitment of patients into clinical trials. It is therefore essential that all non-surgical oncologists have direct clinical care time allocated within their job plans to recruit patients into clinical trials. Clinical research is, generally, carried out more effectively within teams that have the full complement of, and cooperation from, medical and clinical oncologists.

If the UK is to achieve improvements in outcomes for patients with cancer, clinical research must be part of every oncologist's remit and not just confined to those with academic appointments.

Acute Oncology and Resident Oncology Services

Both medical and clinical oncologists are becoming increasingly involved in the provision of the acute oncology service. This is a generic service supporting the needs of patients who are known to have cancer, who may present for an episode of unplanned care, as well as patients presenting acutely with problems due to a previously undiagnosed cancer.

In the past most medical and clinical oncologists were based within cancer centres and provided outreach services to cancer units within district general hospitals. However, over the last few years, more oncologists have been appointed to posts based within cancer units. This has allowed many trusts to develop more comprehensive oncology services, providing diagnostic and systemic therapy services to patients closer to home, particularly for patients with common cancers. The establishment of resident oncology services in cancer units has been mainly but not exclusively through the establishment of medical oncology posts. The provision of resident oncology services may support the higher consultant presence required to deliver an acute oncology service. However, it is essential that all non-surgical oncologists who provide oncology services do so in the context of a post where they are also delivering systemic therapy and/or radiotherapy and can remain active in the field of research.

Adult Solid Tumour Oncology

In most adult cancers clinical and medical oncologists work together to provide different facets of the comprehensive oncological care required for the multi-disciplinary management of each patient.

Although in some circumstances patients will meet only one non-surgical oncologist, it is important that the full range of oncological treatments and therefore opinion is available to patients through the MDT. Each cancer MDT should, and will, comprise a complete complement of oncological expertise required to manage the cancers covered by that MDT. The local needs, size of centre and

the resources available may decide the exact model of service provision but the service must be robust, safe and effective.

Smaller Cancer Centres

The provision of non-surgical oncology in smaller cancer centres varies widely in its structure. There is no “one-size-fits-all” solution that should be expected. However, a service should have access to the full range of oncological expertise, including medical and clinical oncology. The service is predominantly aimed at providing care for the range of commoner cancers. This should also reflect the need to deliver surgical and systemic therapies as near to the patient’s home as possible and to provide an acute oncology service. Clear referral pathways should exist within cancer Networks to ensure that all patients have access to the full range of site specialist teams and expertise as necessary, whether this is provided in the local smaller cancer centres, regional larger cancer centres or further afield.

Larger Cancer Centres

As well as providing care for their local population, these centres will also include a wider range of both tumour site specialist MDTs for rarer cancers and specialist technologies and therapies. There is an expectation that all cancer centres will include a mixture of clinical and medical oncology expertise within their consultant establishment. These consultants should not work in professional isolation but should work in teams with specialists within their own oncological discipline, other oncological disciplines and within their area of tumour site specialisation.

Commissioning

The commissioning of local cancer services should take account of the availability of both medical and clinical oncology services and no service should be commissioned or designed without the consideration and involvement of both disciplines.

The Royal Colleges and Training Structures

All non-surgical oncologists complete core medical training after the foundation programme. The roles of subsequent specialty training and professional governance are within The Royal College of Radiologists Faculty of Clinical Oncology for Clinical Oncology; the Joint Royal Colleges of Physicians Training Board for Medical Oncology and Clinical Haematology; and The Royal College of Paediatrics and Child Health for Paediatric Oncology.

Review of Services

The JCCO, the Royal Colleges of Physicians and The Royal College of Radiologists have agreed that any formal external review of non-surgical oncology services should include participation from both clinical and medical oncologists.

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