Delivery of non-surgical oncology care

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The changes and options for future change in the provision of non-surgical oncology care within the UK are discussed in the context of the recommendations of the Calman report, the drive towards site specialization and the changing nature of the specialties of clinical and medical oncology. Options for the creation of an improved and more flexible service are discussed.

A significant change in the provision of cancer care has occurred as a consequence of the Calman–Hine report (Chief Medical Officer's Expert Advisory Group on Cancer, 1995). District general hospitals (DGHs) aspiring to become cancer units (CUs) have re-configured surgical practice to facilitate site specialization and are attempting to increase the presence of their non-surgical oncology services to match the demands created by more specialist surgical services and to meet the need for greater consultation time and information giving relating to non-surgical treatment.

The Calman–Hine report, while suggesting that there should be a minimum non-surgical oncology presence, is not specific about the nature of this presence at DGH/CUs. There are a variety of ways in which a greater presence of non-surgical oncology could be achieved.

Until comparatively recently virtually all non-surgical cancer care (except for haematological cancers) at DGHs was provided by clinical oncologists (COs). More recently a number of DGH/CUs have employed medical oncologists (MOs) to provide some aspects of non-surgical cancer care. In some cases one MO may provide services to 2 adjacent DGH/CUs and in most they have a link to the designate cancer centre which supports more specialized activity in that region.

MEDICAL AND CLINICAL ONCOLOGY

A recent survey, undertaken by CO and MO trainees, indicated support for joint training (Gerrard et al, 1998) and although there is a desire for reform, it may be fairly stated that MOs and COs in current posts come from quite different backgrounds. Clinical oncology has developed as a specialty geared to meet service need. Trainees are required to have a minimum of 2 years of post-registration experience before the commencement of formal training in clinical oncology. A structured training programme covering basic science, systemic therapy and radiotherapy takes a further 5 years and is dominated by the need to pass the Fellowship of the Royal College of Radiologists (FRCR) examinations. There are annual assessments and frequent appraisals within the training period. There are relatively few opportunities for involvement with a substantive research project and trainees need to take time out of their training to pursue a research degree. Following completion of the FRCR, clinical oncology trainees are encouraged to pursue a site specialist interest and accrue additional experience (e.g. in research, management, education) which is useful at consultant level.

The specialty of medical oncology has, until comparatively recently, evolved as an academic discipline supported by the universities and cancer charities. Its presence is mostly within larger teaching hospitals rather than smaller DGHs. A few MOs are placed in DGHs (in most cases to fulfil a local need at a particular point in time). Apart from the requirement for the MRCP there was little in the way of organized training or assessment until recently.

A structured training programme is now being implemented and in some centres medical oncology trainees are required to sit an MSc degree. There is, as yet, no mechanism to allow training in, or experience of, clinical radiotherapy practice for all MO trainees. One of the great strengths of medical oncology is its very strong links with basic scientific investigation and in the interface between laboratory-based and clini-

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cal-based research. Virtually all senior MOs have a research degree.

There are many discussions, albeit at an early stage, relating to the unification of non-surgical oncology specialties in the UK. It is to be hoped that such discussions will be successful, but even if they are it may be 7–8 years before a new breed of non-surgical oncologists completes training. Until that time there are a number of ways to increase the non-surgical oncology presence in DGH/CUs and the advantages and disadvantages of these are discussed.

'VISITING' CLINICAL ONCOLOGIST

Until quite recently the non-surgical oncological needs of the majority of DGHs (other than larger teaching hospitals) were provided by one or at the most two sessions from one individual CO based at the proximate radiotherapy centre. Newly referred patients and those on follow-up would be seen in this restricted sessional time. The natural unwillingness to delay the appointments of newly referred patients meant that there was inadequate time to assess patients, formulate and discuss management plans, or even consider the possibility of clinical trial involvement.

The whole spectrum of malignant disease was managed but, with few exceptions, treatment was undertaken at the CO's base hospital. The major problems with this system include a lack of non-surgical site specialization and a lack of a strong and consistent non-surgical oncology 'presence' within a DGH/CU. Additionally the increased use of chemotherapy and radiotherapy for common solid cancers meant an increased referral rate overloading the available system. In some cases this lead to the somewhat unsatisfactory solution of the administration of solid tumour chemotherapy by haematologists, surgeons or physicians within the DGH. Very rarely this need was met by the appointment of a consultant (usually a physician) with an interest in chemotherapy treatment.

'RESIDENT' MEDICAL ONCOLOGIST

Recently some larger DGH/CUs have appointed a full-time MO as a member of the consultant staff. The presence of a MO has a number of advantages. These include greater and more rapid access to a non-surgical oncology opinion, an increased likelihood of achieving greater resource allocation for non-surgical oncology care within a DGH/CU and more opportunities for educating and informing medical and other colleagues within and around the DGH/CU about developments in non-surgical cancer care. Inpatient activity is also appropriately supported by the presence of a 'resident' MO.

The difficulties with this system relate to the lack of site-specific (as opposed to modality-specific) expertise, the possibility of relative isolation from other oncology colleagues and the provision of adequate cover during periods of absence. More fundamental problems relate to the inability of a MO based at the DGH/CU to provide anything other than expertise in systemic treatment. Since only around 20% of patients with malignant disease in the UK currently receive chemotherapy, whereas twice that proportion receive radiotherapy at some point during their illness, DGH-based MOs will still require substantial support from colleagues in CO. This model would require patients to travel to the proximate radiotherapy centre not only to receive this form of treatment but also for the appropriateness of radiotherapy to be determined.

OTHER OPTIONS

These two scenarios represent the opposite ends of a spectrum of possibilities. Other patterns of service delivery which exist within the UK include:

Single clinical oncologist

The attendance of a single CO who spends the majority of his or her sessional time at a DGH/CU. This model allows for rapid access and referral and provides a convenient and consistent focus of non-surgical oncology opinion. Given the necessary infra-structure it also supports inpatient activity. There are potential problems. A single CO operating this way cannot hope to develop a major site specialist/research interest. As the treatment for common solid cancers becomes increasingly complex, cross-referral to cancer centre-based colleagues will be required to access appropriate care or involvement with clinical research studies in certain situations. This may conflict with one of the Calman–Hine report recommendations that the delivery of care should occur — as far as is possible — near the patient's home.

The planning and supervision of radiotherapy is a 'hands-on' activity and with the move towards more technically demanding treatments will become even more so. A CO attending his or her cancer centre only two or three sessions per week may not be able to deliver this type of treatment, although internal cross-cover arrangements within the centre may help to minimize this problem.

Medical oncologist and clinical oncologist
Service delivery by a MO and a CO is a model which exists in a number of DGH/CUs. The MO is employed as part of the consultant staff of the DGH/CU whereas the CO is based at the proximate cancer centre and attends for one or two sessions per week. This pattern of service delivery has many advantages, allowing inpatient activity, rapidity of access and consistency of focus.

What is provided, however, is not consistent with the current uptake of non-surgical cancer treatment across the spectrum of malignancy. The provision of service in this model is unbalanced in relation to the use of systemic treatment and radiotherapy. A DGH-based MO of this type will also require a supporting infra-structure to function efficiently and maintain a service during periods of leave. This model may be expensive and is unlikely to be viable in all but the largest of DGH/CUs.

More clinical oncologists/medical oncologists
Service provision by a number of differing CO/MOs is a model which already operates at many large DGH/CUs and has many advantages. Sufficient sessional time is available for patients to be seen and problems discussed quickly. The problem of service delivery during leave/absence is minimized. A certain degree of non-surgical site-specialization is also possible. Sufficient sessions would remain for a CO or MO delivering this service to manage patients requiring complex radiotherapy or intensive or more specialized chemotherapy at the proximate cancer centre.

Although site-specialized surgical and medical colleagues within a DGH/CU would clearly identify and refer to a single specific CO or MO colleague with a parallel interest, it is possible that this model would have difficulty in providing a clear and consistent focus of non-surgical oncology opinion and provision. It might, therefore, be difficult for the non-surgical oncology needs of a DGH to 'compete' for resources with other local demands.

THE CHANGING NATURE OF CANCER SERVICES

There are a number of issues which relate to the changing nature of the specialities concerned and the re-organization of cancer services and which will influence patterns of service provision. These include:

Site specialization *vs* consistent service
The need for an appropriate balance between site specialization (necessitating cross-referral) which is easier to accomplish at a cancer centre level and the need to provide a consistent, visible and uniform non-surgical cancer service to the DGH/CU. Non-surgical oncology/site specialization is encouraged within training programmes and is essential for involvement with basic and, to a lesser extent, clinical research.

However, MOs or COs with highly developed site-specific skills and a major research interest would be more appropriately employed at cancer centre level. We cannot expect highly specialized site-specific oncologists to provide the more general service required by a DGH/CU and yet we must also acknowledge the fact that no oncologist should provide all treatment for all sites. Given these constraints it might be reasonable to accept that usually no more than three 'site specializations' would allow an individual oncologist to maintain his/her level of competence and still provide a significant proportion of the totality of service provision required by a DGH/CU.

Maintaining professional development
There is a need for MOs and COs to attend the cancer centre on a frequent basis, not only to access more specialized services which are available but to maintain professional support and development.

Training in medical oncology
The training pathway for medical oncology is now more clearly defined but still medical oncology is within a period of rapid change and is attempting to evolve from an academic to a service-orientated specialty. MOs who have completed their training in university departments, and are employed by a DGH/CU, will need to accept that there are substantial limitations on their ability to develop new treatments, and the majority of their work will inevitably be of a more routine nature.

Developments in clinical oncology
Clinical oncology is also in a period of evolution. Younger, more enthusiastic COs with medical training and usually the MRCP are by nature less conservative, more comfortable with their ability to manage complex and toxic chemotherapeutic and other systemic treatment regimens and more likely to offer non-surgical treatment than some of their predecessors. They are also unwilling to accept being confined to the delivery of radiotherapy.

Changes in cancer treatment
Any system that is implemented will fail if it is not able to respond to the changing nature of

cancer treatment. Understandable cynicism prevails when revolutionary 'treatments' are mooted and yet the last decade has witnessed many changes, one example of which is the greater use of adjuvant chemotherapy in breast and colorectal cancer.

Indications for chemotherapy will increase and, as strategies are developed to manage toxicity, such treatment will become more intensive. This will alter the balance of service provision between CU and centre. Molecular diagnostics will allow the development of predictive and prognostic assays which will enable us to identify with greater accuracy those patients who are destined to develop local recurrence or distant failure and therefore enable us to target adjuvant radiotherapy or chemotherapy more effectively. New systemic strategies involving cytokines, inhibitors of angiogenesis and cancer vaccines are on the horizon and some are beginning to find their way into clinical practice. Similarly the nature of radiotherapy practice will change as conformal radiotherapy is implemented for a number of tumour sites and as traditional fractionation regimens are replaced by more tumour specific protocols.

DISCUSSION

Adaptation to these changes will require flexibility and responsiveness which is not compatible with the current system and its inherent 'duality'.

All of these factors and many more will continue to change the delivery of care. Inevitably local needs and pressures will influence the model of non-surgical cancer care in DGH/CUs within individual geographical areas. However, much will depend on the future relationships between clinical and medical oncology and whether there will at some point be any distinction between the two specialties.

At present we have two professional structures which have historical, traditional, political and to some extent modality factors which determine their make-up. The service to patients often seems designed to respond to these professional structures. We should design a pattern of care which is based on patients' needs and preferences, and the fabric of our health-care system.

We have to establish a pattern which delivers the maximum amount of care near to the patient's home, and allows them to move up and down the cancer centre/CU/primary care 'escalator' easily throughout their illness. The development of a single non-surgical oncology speciality allowing 'pluripotential' trainees to develop site- or modality-specific interests or remain orientated towards the delivery of a more generalized service would facilitate this process, maintain flexibility and improve the overall standard of care. HM

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KEY POINTS

- The reorganization of cancer services within the UK requires an examination of the way that non-surgical oncology services are provided.
- There is a tension between providing a consistent focus of routine care and allowing non-surgical site specialization/research.
- Integration (or closer cooperation) of clinical and medical oncology would provide a better service.