What is an acute oncology service?

The term acute oncology service was first introduced as a concept in the report compiled by the National Chemotherapy Advisory Group *Chemotherapy services in England: Ensuring quality and safety* (National Chemotherapy Advisory Group, 2009). An acute oncology service brings together the expertise of clinicians working in emergency care, acute medicine and the oncology disciplines.

Role of the acute oncology service

The role of an acute oncology service is twofold; first it aims to ensure all patients with cancer who present as emergencies with either toxicities from their treatment, e.g. febrile neutropenia, or with symptoms from their cancer, e.g. bone pain or dyspnoea, are managed in a timely way.

Supporting clinicians who work in acute care with an experienced oncology opinion means the patient's symptoms are rapidly recognized and more appropriate care is undertaken. This tailoring of care can range from prompt administration of broad spectrum antibiotics to a patient with chemotherapy-induced febrile neutropenia to recognizing a patient with end stage disease so avoiding inappropriate over-treatment such as aggressive resuscitation including transfer to the intensive care unit. Such critical decisions require experience, confidence and sensitive communication with the patient and his/her family.

The National Chemotherapy Advisory Group report defined a second role for the acute oncology service, namely the management of patients who present via the emergency department unwell and after investigations are found to have cancer as their presenting diagnosis.

Managing the acute presentation of all patients with known cancer should be standard for all acute teams, as it is estimated from Hospital Episode Statistics (2009) that an average acute trust will admit five patients a day with a cancer-related emergency. It is not envisaged or expected that oncologists now participate in an acute on-call rota but rather organize themselves as an acute oncology service, which can be accessed readily, and in addition review any known admission within 24 hours during the working week. It is essential that the acute oncology team develops local pathways and protocols for managing common emergencies and takes responsibility for ensuring that they are updated.

Recommending that all patients who present with febrile neutropenia from systemic anticancer treatment should receive antibiotics within 60 minutes of arriving at the emergency department is a challenge that can only be met if key staff are trained to recognize the signs and symptoms and early alert systems are in place to ensure such patients are rapidly triaged. The emergency department is constantly busy with one emergency after another. The acute oncology team can help the emergency department staff by ensuring that patients themselves are educated to present early, carry alert cards and clearly communicate their understanding of their treatment intention.

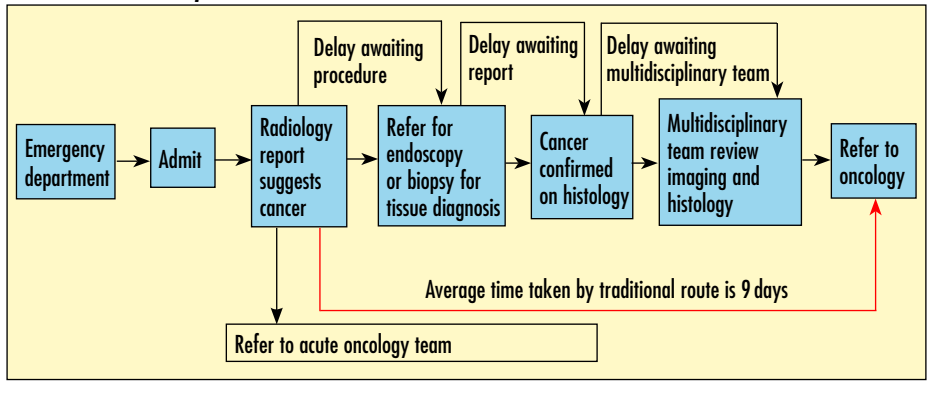
To meet the second requirement of an acute oncology service oncologists need to be involved much earlier in the diagnostic pathway of the patient with suspected cancer. Traditionally oncologists have only been involved in the further management of patients with cancer once histological confirmation has been made and the case is presented in the multidisciplinary team meeting (*Figure 1*).

Several sources of data including pilot work in the author's department have demonstrated that the fitness of a patient who presents unwell via the emergency department with previously undiagnosed cancer is usually poor (National Cancer Intelligence Network, 2010; King et al, 2011). Such patients with advanced disease at presentation generally have a poorer prognosis or are older with multiple comorbidities (Raine et al, 2010). Involving an experienced oncologist much earlier in the diagnostic pathway of such patients is essential to help tailor appropriate investigations.

Almost half of all patients with previously undiagnosed cancer will be referred to palliative care as they will be too unfit for many systemic treatments. In this scenario careful communication is critical. Putting patients through multiple tests can create unrealistic expectations that 'active treatment' can be offered. Involving the acute oncology team with their expertise as soon as there is radiological evidence of suspected cancer means that careful discussions with the patient and his/her family can be undertaken to optimize care.

Data from the author's department show that the involvement of the acute oncology team within 24 hours of an abnormal scan suggesting cancer significantly decreased length of stay, number of unnecessary investigations and led to timelier referral to the patient's preferred place of care (*Figure*

Figure 1. Typical patient pathway for medical presentations via the emergency department. Referral to the acute oncology team as soon as cancer is suspected on imaging can ensure that the most appropriate investigations are undertaken, early symptom control addressed and discharge home or to preferred place of care occurs pending results, resulting in a better patient experience as well as reduced costs for the acute health-care provider.



1). To achieve a well-functioning and effective acute oncology team, close working with palliative care is essential as the majority of emergency admissions in patients with cancer are for control of their symptoms from progressive disease.

Delivering an acute oncology service

The challenge for many hospitals is how they deliver an acute oncology service using their current personnel with little prospect in the current economic climate of new clinical appointments. Half of cancer expenditure in England is on inpatient care, with around 60% of inpatient bed days relating to emergency care (Department of Health, 2008). Investing in an acute oncology service could bring significant savings but at the very least be cost neutral.

The key is engagement and education. All hospitals with an emergency department will have clinical teams comprising medical and surgical staff who work either in the emergency department or are part of the on-take team. The precise composition of any individual acute oncology team is down to each trust and can and should include specialist nursing staff. Clinical nurse specialists are usually the cancer patient's key worker and many of them want to know as soon as their patients are admitted. Their early involvement can give support and advice not only to the patient but also to the acute clinical team looking after them.

Radiologists are the gatekeepers of many essential tests investigating possible cancer. Radiologists have a key role in alerting acute care teams and GPs in primary care that imaging tests suggest possible cancer. In the author's trust consultant radiologists are essential members of the acute oncology team and are able to alert the oncologist to fast track outpatient referrals or advise acute medical teams to involve the acute oncology team to assess fitness for further investigations such as biopsy, which is essential before any systemic treatment can be safely delivered.

The need for each trust with an emergency department to develop an acute oncology service is paramount. The number of patients receiving systemic chemotherapy rose by 60% from 2002–3 to 2006–7 (National Cancer Action Team, 2008) and several national reports have demonstrated significant gaps in service provision for those who present unwell while on anticancer systemic treatment (National Confidential Enquiry into Patient Outcome and Death, 2008; National Patient Safety Agency, 2008).

Although the number of consultant oncologists has risen significantly in the last decade it is neither practical nor possible for oncologists to arrange themselves to provide out of hours care. By becoming an active part of an acute oncology team, oncologists can support the work already being done by the emergency teams and play a much more expert and definitive role in the management of their patients when they present as emergencies. This does not mean all oncologists need to become generalists again, managing a whole host of tumour types, rather it means oncologists need to realize that they have much to share with the acute medical and surgical teams in that they are experts in managing toxicities from treatments and are able to assess all patients on their fitness for further investigations.

KEY POINTS

- There was a 60% increase in patients receiving systemic chemotherapy from 2002–3 to 2006–7 with many more patients being treated at cancer units in district general hospitals; 12% of all inpatient bed days are secondary to an admission with cancer.
- There are concerns about the quality of care in those who die within 30 days of receiving systemic anticancer chemotherapy.
- Developing an acute oncology service at all hospitals with an emergency department is a National Cancer Action Team recommendation.
- Acute oncology teams can comprise experienced medical and nursing staff.
- An acute oncology service adds to the acute care provided by the acute medical and surgical teams.
- Involving the acute oncology team within 24 hours of admission can shorten length of stay.
- Patients who present unwell via the emergency department with suspected cancer are often of poor performance or have existing comorbidities that need to be assessed before routine investigations are undertaken.

Conclusions

The acute oncology team is the way forward and has bridged a gap in many well-understood pathways such as suspected lung, breast and colorectal cancers. All other presentations can be referred to the acute oncology service and any duplication of referrals be reduced by the careful provision of care by teams who communicate well – the three c's. BJHM

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