



# How has acute oncology improved care for patients?

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## ABSTRACT

A United Kingdom-wide appreciation of the systemic failings of emergency cancer care led to the creation of a new subspecialty, acute oncology. It was meant to bridge the gap between admitting teams, oncology, and palliative care, providing support to manage the symptoms of cancer, the side effects of cancer treatment, and people presenting with cancer of unknown primary origin. This article identifies the reasons for the creation of acute oncology and explores various models for this aspect of cancer care worldwide. With health care budgets static and demand increasing, the article also identifies ways in which acute oncology can contribute to an efficient and caring health system.

## KEY WORDS

Acute oncology, symptom control, cancer of unknown primary, NHS reorganization

## INTRODUCTION

One of the biggest challenges in providing cancer care occurs when patients present as emergencies to hospital. Unexpected admission to hospital results in a longer stay and a poorer patient experience<sup>1</sup>. Those challenges are addressed in varying ways worldwide. This article documents the approach taken in the United Kingdom and contrasts it with the approaches used in managing cancer inpatients globally.

Cancer places a large burden on acute services, with North American data suggesting that up to 5% of all emergency department visits are cancer-related<sup>2,3</sup>. Attempts by the U.K. National Health Service to tackle cancer have shifted focus, with the 2008 Cancer Reform Strategy emphasizing the costs of inpatient care<sup>4</sup>. If patients are admitted because of their cancer, it proves costly. Inpatient care accounts for half of all cancer expenditures in the United Kingdom, and 12% of all inpatient bed stays

are for cancer care, equating to 5.3 million bed-days annually. A typical British cancer network servicing a population of 1.5 million would have 440 cancer patients in hospital at any one time.

Deficiencies in the management of people admitted for complications of cancer treatment were documented in the 2008 report *For Better, For Worse?* from the National Confidential Enquiry into Patient Outcome and Death<sup>5</sup>. The lack of experience of general medicine teams in managing the side effects of anticancer treatment and the limited presence of oncologists in district general hospitals, coupled with poor communication between oncologists and admitting teams, were highlighted as causative factors. The report sparked debate about who should care for cancer patients admitted as emergencies: general internal medicine or oncology.

That debate was settled through the inception of “acute oncology,” suggested by the 2009 National Chemotherapy Advisory Group report, which recommended an acute oncology service (AOS) in every hospital with an emergency department.

The acute oncology specialty encompasses the management of patients who develop symptoms as a consequence of cancer, cancer treatment, or a new undiagnosed cancer<sup>6</sup>. The AOS supports admitting medical teams by streamlining the care of the unplanned cancer-related admission. The streamlining is achieved using a multidisciplinary team model in which clinical nurse specialists and acute oncology consultants work in tandem. Acute oncology consultants are a mix of radiation and medical oncologists who have completed their specialist training. (At present, there is no formal acute oncology training pathway.)

Most patients are seen by the AOS because of symptoms of known malignancy. Acute oncology physicians are well-placed to advise on symptom control for those patients. The involvement of an AOS for patients with a new cancer diagnosis rationalizes or expedites investigations and subsequent management. Patients can be discharged with early outpatient follow-up, rather than remaining in hospital until a

histologic confirmation of cancer is obtained. The acute oncology clinicians are able to make timely, difficult decisions about the fitness of patients for investigations and treatment, and they identify the individuals who should receive best supportive care, rather than aggressive treatment, allowing patients to leave hospital quicker. The AOS has been shown by the Department of Health to reduce inpatient stays and to improve the patient experience<sup>6</sup>.

## THE APPROACH ABROAD

The U.K. national cancer director, Professor Mike Richards, has set a target of reducing the length of stay for oncology patients by 1 million bed days<sup>7</sup>. The relatively new subspecialty of acute oncology should do much to help meet that target. Early review of a patient by the AOS promotes proactive case management and encourages clinical decisions to be made daily. Repeated reviews by acute oncology teams direct treatment and discharge planning simultaneously, which allows for safe and rapid discharge. Acute oncology has become key in cancer care not only in the United Kingdom, but also abroad.

In Europe, the advantages of acute oncology input are being realized. An Irish study of cancer inpatients found long lengths of stay—an average of 29.3 days in the 82 patients admitted over a 2-day period in a university teaching hospital—that were thought to be a result of lack of referral guidelines, absence of on-site palliative care input, delays in seeing senior cancer clinicians, and lack of discharge planning<sup>8</sup>. The study commented that the development of acute oncology assessment units would have avoided many of the admissions.

Globally, the acute oncology concept is being extended to avoid emergency admissions to hospital. The management of more patients in ambulatory care, together with the development of emergency oncology triage in the ambulatory care centres, is being undertaken in Australia<sup>9</sup>. A 3-year, 2361-patient study in an ambulatory assessment unit, with clear clinical pathways and exclusive use of investigation equipment, resulted in an 18% admission rate compared with a 79% rate for oncology patients attending the emergency department<sup>10</sup>. Patients attending the assessment unit also experienced improvements in time to being seen (6 vs. 10 minutes), time to initiation of treatment (54 vs. 300 minutes), and time to placement in a ward bed (3 vs. 19 hours). It should be noted, however, that the study was nonrandomized and that those attending the emergency department tended to have higher symptom acuity.

Pilot work by the Cancer Action Team in collaboration with Aptium Oncology (a private health consulting organization) revealed that patients hospitalized for cancer in the United Kingdom were managed differently from their American counterparts, with American hospitals having a lower bed

utilization. Case reviews showed that one third of British inpatient admissions were avoidable and that a further third could be shortened through the use of an ambulatory care model<sup>4</sup>. That model has been used on occasion in the United States, where investigations and treatment can be provided in a more cost-effective outpatient setting. However, direct parallels between the United Kingdom and the United States are difficult to draw because of intrinsic differences in health care funding and provision. The future of acute oncology in the United Kingdom could involve an extension of the acute oncology team model to support community-based services, treating acute presentations when admission to hospital is not needed<sup>11</sup>.

Previous models for cancer care involved the admitting team undertaking key decisions on appropriateness of investigations and waiting for histologic confirmation of cancer before referral to oncology<sup>12</sup>. With the early involvement of acute oncology, more appropriate care pathways are developed for individuals who are unfit for intensive investigation. Acute oncology pilot studies in Sheffield<sup>13</sup> and London<sup>1</sup> found that many patients presenting to hospital with a new diagnosis of cancer are often fit only for best supportive care. By becoming involved early in the care of those patients, the teams have avoided unnecessary investigations and anticancer treatment and have quickly referred patients to palliative care. In addition to those clinical benefits, both studies showed a lower average length of stay for oncology patients after introduction of an acute oncology service (by 6 and 8.4 days respectively).

The new specialty of acute oncology lies at the heart of cancer care. It links admitting general specialty teams with palliative care, radiology, histopathology, nursing, and social care. By doing so, it drives forward care that is finely tuned to patient need, ensuring that appropriate management takes place in the right setting.

## CONFLICT OF INTEREST DISCLOSURES

The author has no financial conflicts of interest with respect to this article.

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