Multidisciplinary Teams in Cancer Care: Pros and Cons

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Introduction

Cancer is the leading cause of burden of disease in Australia, accounting for 19% of our overall disease burden.[1] Based on current trends, one in three Australians will be diagnosed with cancer before the age of 75.[2] The incidence of cancer is rising as Australia's population ages, with a 30% increase projected over 2002-2010.[3] Therefore, early detection and effective treatment are needed to control morbidity and mortality due to cancer.

Far from being the exclusive domain of surgeons and medical oncologists, cancer management today involves input from many disciplines. Due to the ever-growing complexity of cancer diagnosis and treatment, it is now impossible for a single doctor to oversee every aspect of a patient's care. Multidisciplinary teams are thus becoming increasingly important in the management of this major disease entity in Australia.

This essay will examine the relevance and delivery of multidisciplinary cancer care, advantages and disadvantages of a team approach, as well as challenges and facilitators of multidisciplinary teamwork in Australia.

The Need for Multidisciplinary Care

In traditional models of multimodal cancer care, patients undergo a process of sequential referral, where they are shuttled from clinician to clinician at different stages of diagnosis and treatment.[4] A patient with breast cancer may initially consult a GP, who refers her to a radiologist for mammography, which is followed by a series of encounters with surgeons, radiation oncologists, medical oncologists and so on.

This disintegrated approach can result in an overwhelming, confusing experience for the patient.[5,6] Other areas for improvement in traditional cancer care include:

- Unco-ordinated and fragmented care,
- Disjointed referral systems and long waiting times,
- Low patient satisfaction with services,
- Non-uniform access to specialist care, and
- Large variations in frequency of individual treatments used, caseloads for particular doctors, and patient survival rates.[6,7]

Poor care co-ordination and access to specialist services are especially problematic in regional Australia due to geographical factors. This inequity is reflected in cancer statistics. Although the cancer incidence is 10% lower in remote areas compared to metropolitan centres, mortality is 10% higher, indicating significantly poorer cancer survival in remote regions.[2]

Multidisciplinary Care in Australia

Multidisciplinary care is described as "an integrated team approach to health care in which medical and allied health care professionals consider all relevant treatment options and develop collaboratively an individual treatment plan for each patient".[8] While cancer care today is necessarily nearly always multidisciplinary, the presence of a multidisciplinary team signifies formal commitment to principles such as communication and co-operation that underpin effective multimodal care. Multidisciplinary cancer care teams include representatives from core specialties (e.g. surgery, medical oncology, radiation oncology, pathology, radiology and general practice), who are supported by non-core team members as needed (e.g. genetic counselling, physiotherapy, nuclear medicine, palliative care, social work).[9] Multidisciplinary meetings form the lynchpin of care by providing a forum for interdisciplinary communication, decision-making and co-ordination of care.

Multidisciplinary cancer care can be delivered in a number of ways. In centralised multidisciplinary clinics that act as a "one-stop shop", patients can see all relevant specialists in one visit.[10] Despite the attractions of this model, its utility is limited to clinics with high patient volumes, which are only achievable in large metropolitan

centres in Australia. Alternatively, care may revolve around meetings where different disciplines meet for case discussion and treatment planning.[4] Physical team meetings are often impossible in rural and remote Australia, but multidisciplinary care can be facilitated by collaborations with metropolitan sites and the use of telemedicine technology.[11]

Given Australia's relatively small population, demographic and geographic diversity, and mixed public and private health systems, no single fixed model is suitable for the delivery of all multidisciplinary cancer care.[10] For this reason, five principles were developed by the National Breast Cancer Centre (NBCC) as a flexible framework for implementing multidisciplinary care strategies tailored to local services and needs[4,8]:

- A team approach to care
- Communication among team members
- Access to full therapeutic range
- Provision of care in accord with nationally agreed standards
- Patient involvement in decision-making

Advantages of Multidisciplinary Teams

Benefits to patients

Multidisciplinary teams can lower mortality, improve quality of life and reduce the cost of cancer care.[12,13,14] Multidisciplinary involvement from the early stages of management ensures that a full therapeutic range of options are considered, so patients receive appropriate and timely treatment.[9] Providing information about all treatment options has been shown to improve the mental health and well-being of adults with cancer.[15] There is evidence that decisions resulting from multidisciplinary discussions are more likely to align with evidence-based standards than those made by individual clinicians.[4,7,16] Furthermore, there is greater adherence treatment plans when management decisions are made at multidisciplinary meetings and understood by all care providers.[12]

Multidisciplinary teams not only enhance decision-making but also co-ordination of services, leading to more efficient health processes. Multidisciplinary teamwork

facilitates treatment planning, streamlines referral processes and prevents unnecessary duplication of investigations, thus saving time and resources.[7,9,14,16] Resultant improvements in treatment access, waiting times and continuity of care lead to better quality of life and greater patient satisfaction.[6,17]

A recent Australian study found that lung cancer patients seen in a multidisciplinary clinic are processed more rapidly and are more likely to receive active treatment than those managed through conventional services. Patients diagnosed with late stage lung cancer are often under-referred for assessment and treatment due to nihilistic attitudes towards prognosis and poor knowledge about current multimodal therapy.[18] Thus a multidisciplinary team approach can improve the management and survival of the most common cause of cancer death in Australia.[2]

A drawback of traditional cancer care is the conflicting information provided to patients by different health professionals. Multidisciplinary teams, on the other hand, can provide more consistent information to patients after reaching a group consensus.[7] Patients' emotional needs are identified more readily by multidisciplinary teams, paving the way for appropriate provision of psychosocial support.[6, 19] In a multicultural society like Australia, the cultural backgrounds of team members are likely to be as diverse as those of patients. Therefore the assorted perspectives within multidisciplinary teams can provide valuable insight into pertinent social and cultural considerations, enabling culturally-appropriate, holistic cancer care.

Benefits to healthcare professionals

Patients are not the sole beneficiaries of multidisciplinary teamwork; healthcare professionals also profit in terms of support, communication and education. Multidisciplinary meetings provide reassurance and professional support for decision-making.[7] Inter-specialty relationships are enhanced by opportunities for clinical discussion and collaboration.[16] Encouragingly, studies show that a multidisciplinary approach results in greater job satisfaction and psychological well-being in team members.[20]

Health professionals working together in multidisciplinary teams learn from each other informally as well as formally via cross-discipline education and training

practices. Through active discussion and retrospective review of cases in meetings, specialists acquire valuable experience of how treatments can be combined to optimise patient outcomes.[6] Not only do multidisciplinary meetings facilitate continuing education of specialist clinicians, they offer valuable opportunities for the education of medical students, junior doctors and trainees.[16,21] By becoming involved in multidisciplinary meetings and clinics, students can experience teamwork in clinical medicine and develop a working understanding of the ethical dilemmas and psychosocial considerations in cancer care.[22]

Benefits to health systems

From a broader perspective, a multidisciplinary approach to cancer care helps to improve health services and standards of care. Open discussion at multidisciplinary meetings promotes peer review, in accordance with principles of clinical governance.[7] Streamlined care co-ordination benefits health systems by minimising inefficient communication and avoiding unnecessary duplication of investigations.[6] Multidisciplinary teams also support the shift of cancer care delivery from hospitals to ambulatory settings. This decentralisation will improve the sustainability of cancer care as the Australian health system faces a number of challenges, such as increasing cost of cancer treatment and the ageing health service workforce.[12]

By pooling resources and data across disciplines, multidisciplinary teams provide a fertile ground for collaborative research and innovation. Multidisciplinary care also promotes greater participation in clinical trials, which helps to improve evidence-based cancer care.[7,14].

Disadvantages of Multidisciplinary Teams

Notwithstanding the advantages elucidated above, multidisciplinary teams are time- and resource-intensive and riddled with potential pitfalls.[7,21] A poorly designed team with ill-defined individual roles will complicate management by creating redundancies and discrepancies in patient care and communication.[6] Practical concerns such as organising meetings can create significant incursions on the time of team members if there is inadequate administrative support.[7]

In multidisciplinary teams, where decisions are based on group consensus, there is the danger of “treatment by committee” without an individual clinician taking responsibility for patient care.[21] This not only has potential implications for quality of care and patient-clinician relationships, but also medico-legal ramifications. In Australia, all professionals who attend team meetings have a legal duty of care and liability for decisions, regardless of whether they have personal contact with the patient.[23] This could have dire consequences should medico-legal actions be brought against decisions made by multidisciplinary teams.

The benefits of wide-ranging professional input at multidisciplinary meetings should not come at the expense of patient involvement, since patients themselves are seldom present at meetings. Lack of patient participation in the decision-making process violates a key principle of multidisciplinary care and compromises the notion of patient-centred care.[8] If a patient’s co-morbidities, preferences, and social circumstances are not taken into account, team decisions may be inappropriate and not implemented, negating any amount of multidisciplinary discussion.[15,22,23] However, patient attendance at meetings is usually precluded by the patient’s limited understanding of medical terminology and disadvantages such as restriction of the free flow of information and inefficient throughput of patients.[23]

While a culture of debate is central to effective multidisciplinary discussions, collective decision-making can be hindered by strongly conflicting opinions. Even when a consensus is reached, if there are no reliable documentation and communication processes in place, patients may still be provided with inconsistent and incomplete information.[6] Therefore, precautions must be taken to ensure that the advantages of multidisciplinary care do not become disadvantages.

Barriers to Multidisciplinary Teamwork

Although the advantages of multidisciplinary care are well-established, a number of barriers prevent the full realisation of these benefits. Support for the principles of multidisciplinary care does not necessarily translate into clinical practice. Although over 95% of Australian clinicians believe that it is essential to communicate about the care of cancer patients, less than 30% of hospitals have regular treatment planning

meetings.[8] Rural teams and small-volume hospitals are especially unlikely to have communication frameworks in place.[10] In Australia, the greatest impediments to effective teamwork are perceived to be health system barriers, namely time pressures, insufficient facilities and administrative support, and lack of reimbursement for time spent in meetings.[24,25] Poor interpersonal and interprofessional relationships can also hamper teamwork.[14] Individuals, departments and units may resist the idea of shared responsibility out of fear that it will undermine professional autonomy.[6]

Australian barriers

Australia's geography represents a particular challenge in the implementation of multidisciplinary care.[26] The tyranny of distance across Australia restricts access to many diagnostic, supportive and therapeutic services. For example, for patients in Darwin, the closest specialist radiation oncology service in located in Adelaide, over 3000 kilometres away.[10] Providing a full range of therapeutic options is problematic when trying to co-ordinate specialist and allied health services over large distances.[24] However, it is these less accessible parts of Australia that would benefit most from formal multidisciplinary teams and cancer service networks.

The challenge of multidisciplinary cancer care is further compounded by Australia's mix of private and public service provision, leading to inconsistencies in multidisciplinary practice.[26] Private practice teams tend to discuss cases less frequently and informally, on an ad-hoc basis. Multidisciplinary care is probably more challenging for private clinicians due to physical isolation from colleagues, less ready availability of technology and resources, and the personal expense of managing teams.[10,11] Co-ordinating care across the public-private interface is also difficult, especially when complicated by privacy issues when sharing patient information.[24] These disparities and difficulties in utilisation of multidisciplinary teams highlight the potential for inequitable cancer care in Australia.

Strategies to Facilitate Multidisciplinary Teamwork

Team processes

Leaders with good communication and management skills can monitor team goals and processes, foster positive team dynamics and resolve interpersonal and interdisciplinary barriers to effective teamwork.[7,16] The success of multidisciplinary teams is highly dependent upon the efforts and leadership of a few committed individuals, or "local champions".[8,24] Dedicated support staff relieve the administrative workload on health professionals, allowing them to maximise their specialist contributions to the team.[7,14] Administrative tasks might include collating patient information in preparation for meetings and providing clear written explanations of decisions to all stakeholders (including patients and GPs) to ensure effective communication within and without the team.[21]

Resources

Without adequate technological, administrative and financial support, multidisciplinary teams can become burdensome, ineffective incursions on time-poor health professionals. Teleconferencing facilities for multidisciplinary case-conferencing can overcome communication difficulties over large geographical areas. The costs associated with implementing multidisciplinary teams are not insubstantial, and include the increased workload associated with preparing for and attending meetings.[8] In recognition of this, new Medical Benefit Schedule items were introduced in 2006 to provide rebates for medical practitioners participating in multidisciplinary cancer meetings.[27]

Education

In coming years, multidisciplinary teams are likely to become widespread as a care delivery model in oncology, as well as in the management of other chronic conditions. Future doctors will be involved in multidisciplinary cancer care teams not only as surgeons and medical oncologists, but also as radiation oncologists, general practitioners, palliative care specialists, pathologists, radiologists and psychiatrists. As such, it is important for medical students to become familiar with the principles and practice of multidisciplinary teams from the beginning of their medical careers. Early immersion in a multidisciplinary paradigm will break down and prevent interdisciplinary prejudices that may thwart effective teamwork.

Active participation in multidisciplinary processes will provide medical students with first-hand experience of the advantages, disadvantages, challenges and skills of multidisciplinary teams. The following strategies are suggested as activities to complement existing objectives and clinical experiences in the recommended oncology curriculum for Australian medical students[28,29]:

1. Students should interview a cancer patient and analyse the effects of their interactions with multiple health professionals, to gain insight into patient experiences of multidisciplinary cancer care.

2. Students should attend and participate as much as practically possible in multidisciplinary team meetings (e.g. by presenting summaries of patient histories for case discussion), to prepare for future practice as multidisciplinary team members.

3. Students should critically evaluate the structure, processes and outcomes of a specific multidisciplinary team, comparing their findings with clinical guidelines. By performing a simple clinical audit, students can contribute to ongoing quality improvement and familiarise themselves with best-practice standards for multidisciplinary cancer care.

Conclusion

In the setting of Australia's rising cancer incidence and the growing complexity of cancer care, multidisciplinary teams have the potential to improve the quality of life and survival of cancer patients. This potential is currently tempered by a number of geographical, practical and financial challenges. However, ongoing commitment, training and support will ensure that multidisciplinary teams are harnessed as a powerful vehicle for delivering efficient, effective cancer care.

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