



Multidisciplinary teams in cancer care: pros and cons

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Introduction

With the increasing degree of specialisation in cancer management, a team approach through multidisciplinary care has been widely embraced throughout the world [1, 2]. This model is especially important in Australia [3]. In 2005 over 100,000 new cases of cancer were diagnosed in Australia and it has a significant impact on our health system, being the leading contributor to the total burden of disease in 2003 [4]. Thus an efficient and patient-centred approach to cancer management is crucial. Multidisciplinary teams are involved in the diagnosis and staging of cancer, treatment plans and delivery as well as ensuring patient involvement in the decision making process. Regular meetings are also conducted where patients are presented and their management reviewed.

Multidisciplinary care improves coordination of care and outcomes including quality of life and survival. There are also incentives for health care professionals such as creating a more supportive working environment and assisting in relieving the psychological burden of caring for patients with cancer. Furthermore, the multidisciplinary meetings are educational for team members. On the other hand, rather than disadvantages there are barriers to the successful implementation of multidisciplinary care.

Barriers to Multidisciplinary Care

There are several obstacles to successfully applying the multidisciplinary model.

Multidisciplinary groups can lack enough patient input for informed decisions. Patients are generally not present at the multidisciplinary meetings and thus, their wishes might not be adequately considered. This is especially important in treatment planning for cancer as it is likely to include life changing decisions such as whether to undertake radiotherapy, chemotherapy or major surgery. In fact, one study found that following multidisciplinary meetings, 15.1% of the decisions reached were not implemented [5]. The reasons for changes in treatment plan included patient choice, comorbidities and other clinical information which were not considered in the review process. This issue can potentially be addressed by the presence of the patient themselves [6] or a patient advocate such as a junior doctor or a specialist nurse at the meeting [7]. This is not a disadvantage as such as it highlights the truly patient-centred approach of multidisciplinary care; ultimately the treatment undertaken is left up to the patient and the team's role is to provide guidance and support during this time.

In addition, there is the risk of teams being poorly coordinated. With the numerous disciplines involved, there can be misunderstandings. For example, group members may believe that the patient has not received all the relevant information [8, 9] and thus assume the role of providing this. Similarly, patients may ask the same questions to different team members because of the complexity of the issue or because they want to confirm their understanding. In such situations, it is important that consistent information is delivered to the patient. This is a frequent issue which was identified by 30% of surgeons in a survey of multidisciplinary staff opinions [10]. In order to reduce the chance of this happening, decisions need to be documented and specific staff should be designated the role of discussing information with patients. Clearly, teamwork is essential to ensure multidisciplinary care runs smoothly.

There can also be conflict between team members. Cooperation is essential in multidisciplinary care and can be disrupted by a lack of interaction in the past or a poor history between specialties [11]. Prior to the multidisciplinary approach, there was little face-to-face contact between specialists and thus working in teams can be challenging initially. Traditional attitudes favouring professional hierarchy and dominance can also disrupt team work. Furthermore there is the potential for confusion among team members regarding their role in the team as well as other members' roles [12, 13]. This can especially occur when the same therapy can be provided by two specialties; for example, chemotherapy by oncologists or urologists in the setting of prostate cancer. In these circumstances, it is crucial that team members trust each other's judgment and keep in mind they share the goal of achieving the best outcome for the patient. Thus it is essential that team members are committed, have a common objective, clearly negotiated roles and a team leader is present who can facilitate equal participation from all disciplines and foster positive team dynamics.

Some multidisciplinary teams do not conform to guidelines and thus their success can be limited. Input from all relevant disciplines such as pathology, surgery, oncology and allied health is essential in a team approach and yet, this does not always occur. In a survey in England, 3 out of the 134 teams surveyed did not have regular input from their pathology or radiology department [14]. Similarly because of time constraints some members may be unable to attend every meeting [10]. The opinion of a wide array of specialties is essential in formulating a balanced management plan and the absence of key team members can undermine the efficacy of multidisciplinary care. For example, pathology and radiology are essential in cancer diagnosis and accurate staging and clearly have the potential to dramatically influence patient care. Solutions to this troubling problem include demonstrating the benefits of a team approach, keeping meetings concise and providing incentives such as refreshments [15].

In addition to time constraints, the formulation of multidisciplinary teams and face-to-face meetings may not be feasible in every setting. This is especially relevant to remote Australia. There is a medical workforce shortage in rural Australia [16] with a lower case load of patients but distribution over a larger area. Many patients rely on visiting specialists or travel to major towns to access health care. Thus, all the specialties recommended as part of a multidisciplinary team may not be accessible in such locations. Fortunately with the advent of telecommunication, it is possible to link rural health care professionals to their counterparts in metropolitan areas via videoconferencing and other modalities. Indeed, at Albany Hospital in Western Australia multidisciplinary input from medical and radiological oncology is provided through teleconferencing from Perth [17]. Thus, an adaptation of the multidisciplinary model may be required for some locations, particularly in regional Australia.

Advantages of Multidisciplinary Care

There are multiple advantages to adopting the multidisciplinary model in cancer management.

Patient-Related Benefits

Patients with cancer who are managed by multidisciplinary teams experience better clinical outcomes. It has become the norm of care and thus there are few studies formally evaluating its impact in controlled settings [18, 19]. From the available evidence, team approaches seem to reduce delays in treatment and referral [20-22]. This is likely to result in a better outcome for patients as early intervention is particularly crucial in cancer management. Similarly, there is an improvement in the accuracy of staging thus affecting treatment selection [23]. Given that appropriate treatment is more likely to be given as well as being in a more timely fashion, it is not surprising there are several studies reporting better treatment outcomes [24-28] including higher survival rates [24, 27, 28]. In addition to a survival benefit, a team approach can also aid in maintaining and even improving quality of life during cancer treatment [29]; a priceless achievement in patients with a limited life expectancy.

The meetings are also an ideal platform to facilitate recruitment into clinical trials [20, 21, 30]. Research nurses are often a part of the team and therefore can discuss patients' suitability for entering research trials as well as alerting other staff about ongoing studies and experimental therapeutic options. Therefore multidisciplinary care teams can also broaden the range of treatment available to patients.

In addition, a team approach facilitates enhanced coordination of the care provided. This is especially important in the management of cancer as many specialties are involved including oncologists, radiologists, pathologists, physiotherapists and other allied health professionals. It is

therefore essential that patients are not lost in a maze of endless referrals and fragmented care. With the team approach there is a greater continuity of care [20, 31, 32] and patients do not face the daunting task of interpreting sometimes conflicting information from different practitioners. Team members are aware of aspects of the patient's management outside of their field of expertise. Thus there is more consistent information given to the patient, aiding their understanding of the treatment plan and possibly facilitating compliance [33]. In addition, the means to easily share investigation results avoid unnecessary duplication of laboratory tests and imaging studies [21] which can exert a considerable burden on patients and expose them to an unwarranted increased risk of complications. Thus it is not surprising that there is greater patient satisfaction when being managed by multidisciplinary teams [22, 34].

Multidisciplinary management also has the potential to alleviate health disparities between regions. This phenomenon was described as the "Breast Cancer Lottery" in United Kingdom and is also relevant to Australia where there is an inequity in health status and access to medical care between remote and metropolitan areas [35]. Disparities in health care services are concerning as up to 30% of Australian women diagnosed with breast cancer reside in regional Australia [36]. Teams linking specialists from both rural and metropolitan areas are better equipped to coordinate transferring patients between hospitals and ensuring equal access to treatment which may only be available in larger hospitals. Furthermore, management is more likely to be in accordance with evidence-based practice [20, 37] with more patients receiving the recommended treatment regime for their stage [21, 38]. This may be because practitioners need to justify their treatment plan in front of their peers during management sessions. The sharing of knowledge between practitioners can also assist in ensuring equity in available treatment options as health professionals become more familiar with new treatment recommendations and in turn, can offer them to their patients. This can have quite a significant impact on patients; for example a lady with early stage breast cancer being offered wide local excision and radiotherapy rather than mastectomy alone.

There are also improved psychological outcomes for patients under the care of multidisciplinary teams. The mental health of patients is of utmost importance to reduce the impact of cancer and team management facilitates this by fostering patient-centred care [20]. Patients prefer joint decision making relationships with their practitioners [39] and this is the crux of multidisciplinary management. Furthermore, team meetings raise awareness of the psychosocial needs of patients with cancer as well as the range of options available for addressing these [40]. For example, while being cared by a multidisciplinary group, there is an increase in referrals to breast care nurses [7]. Even simply informing the patient about the multidisciplinary review process may be beneficial to their well being [41]. As their treatment plan has been approved by several specialists, much like seeking a second opinion, patients can gain confidence in the basis for their regime [31].

Benefits for Healthcare Professionals

There are also benefits for other participants of multidisciplinary teams.

Team approaches foster stronger relationships between disciplines which assist in efficiently sharing information. Previously practitioners may have had to chase results and progress reports from other specialties. However, with regular team meetings facilitating communication between specialties, there are frequent opportunities to discuss management issues [20, 21]. This format also strengthens ties with general practitioners who attend the meetings [15] or receive letters summarising the decisions reached. In attending such meetings, general practitioners can act as advocates for their patients and ask about potential side effects of treatment and any trials entered [17]. The communication between general practitioners and specialists can be tenuous without these formal sessions or coordinated care. A lack of information provided to their local medical officers can be a tremendous loss to patients by limiting the capacity of the practitioners to provide an insight into their wishes and support for them throughout the stressful process of cancer diagnosis and management.

Being part of a team in cancer management is also beneficial to the mental health of health care providers [20, 42]. The meetings aim to create a supportive environment and team participants report improved staff training and morale [10]. Individuals can discuss their concerns about management which is especially important in dealing with complex cases; not only patients, team members can also derive considerable reassurance by seeking a second opinion. In addition, group members are better equipped to provide support for each other when required such as in the management of complaints or errors [20, 31]. Medical personnel are described as the “second victims” of medical error [43] as the reaction to such events is often one of guilt, shame, and depression [44-48]. Furthermore, they may experience burnout and lose their empathy and compassion which is so critical in supporting patients with cancer. Thus, it is crucial that support is available to healthcare professionals when adverse outcomes occur and this can be provided by other members of the team.

Furthermore, multidisciplinary review sessions provide learning opportunities for staff. It is an informal channel of education where team members can learn from each other [20, 21]. The contribution from different disciplines allows individuals to learn about the wide spectrum of management beyond their own specialty, for example about the social support networks available for patients. Junior staff and medical students can also benefit from the meetings as they gain an insight into the complexity of cancer management as well as the importance of teamwork and patient-centred care. In addition, as the cases presented for review often involve treatment

dilemmas not mentioned in textbooks, medical students can acquire an appreciation of the “grey” areas in medicine and the inevitability of uncertainty.

Recommendations for Student Education

As the “cons” of multidisciplinary care are largely outweighed by the benefits for patients and medical personnel, the importance of a team approach in cancer management should be emphasised to medical students. Attendance at multidisciplinary review sessions should be strongly encouraged and the learning experience can be enhanced by allowing students to ask questions at the end of each session. Furthermore, in light of the critical role of cooperation between people of different backgrounds, teamwork and an increased awareness of other disciplines can be fostered early through joint social activities such as balls and sports events involving students studying different courses such as medicine, physiotherapy and nursing.

Furthermore, as team leadership is vital in the successful implementation of multidisciplinary care [42], students should be encouraged to develop their leadership and communication skills. Similarly, students should be comfortable with working in a team environment. This could be fostered through group learning activities such as Problem-Based Learning.

Conclusion

Clearly, multidisciplinary teams are vital in ensuring an integrated and improved quality of cancer care. Its patient-centred approach and the strengthened coordination of care serve to better equip health professionals to support patients at what could be the most difficult time of their lives. Furthermore, the process of reviewing management issues through multidisciplinary meetings benefits both patients and team members. Successfully applying the multidisciplinary model is not without its challenges, but ultimately its achievements are well worth the effort.

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