

Multidisciplinary teams in cancer care

The Pros and Cons

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At present, cancer care is complex and necessitates the involvement of a wide range of health care professionals to address the biological, psychological and social needs of a patient. The rapidly expanding range of efficacious treatment has introduced many dilemmas about optimum cancer management plans and how these should be presented to patients. There has been an increasing interest in the multidisciplinary approach to working with specific patient groups with long term, chronic illnesses such as cancer¹. The benefits of a multidisciplinary team (MDT) in cancer care are not only to the patient's outcome and wellbeing but also to the health professionals involved in the patients care. However, there are many practical barriers that need to be addressed and overcome before a MDT approach to cancer care can be deemed to produce exclusively positive outcomes. Despite an increase in the delivery of cancer services via MDTs, research shows that their effectiveness has scope for much improvement²⁻⁴. This paper aims to identify the pros and cons of multidisciplinary care (MDC) in cancer as well as suggests potential ways of increasing their efficacy in the future.

What is multidisciplinary care?

Multidisciplinary care (MDC) can be broadly defined 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*” (National Breast Cancer Centre, 2005)⁵. The concept of multidisciplinary teamwork was created by professionals working in mental health in the early 1970s and diabetic care in the early 1980s. Renewed interest in this approach has identified that individualized optimal care provided by a specialized MDT puts the patient at the centre of their own care and is a lot more holistic. MDC aims to ensure that members of the treatment team can discuss all aspects of cancer patients physical, emotional/psychological and supportive care needs to ultimately improve the quality of life of the patient.

The team composition can include surgeons, diagnostic and therapeutic radiologists, histopathologists, medical and clinical oncologists, nurse specialists, speech pathologists, physiotherapists, psychologist, social/welfare worker and palliative care physicians. A regular meeting of all health practitioners involved in the treatment and care of a cancer patient is an essential feature of MDC⁶. Through this process each team member understands the plan and knows when and where referral to the appropriate personnel needs to be made. The team agrees on the precise diagnosis and staging of the disease, the best treatment option for the patient and development of a treatment plan.

Prospective treatment and care planning for the patient at these meetings may occur pre and or/post surgery, prior to commencing adjuvant treatment or when treatment plans that have already been commenced need to be reviewed. Such a model of cancer care delivery also allows for an identified team member to convey the team recommendations to the patient so they are in the centre of the decision making process.

Pros of Multidisciplinary Care in Cancer

In 1995, a MDC approach was recommended by a House of Representative inquiry in the UK, The Calman-Hine report⁷, as a means of achieving best practice in the care and management of chronic conditions such as cancer. MDTs are increasingly well embedded in the UK NHS and more than 95% primary care trusts provide services in this manner for breast, lung, upper GIT and bowel cancers⁸. The Australian Better Health Initiative, which is a partnership between the states and territories and the Australian Government aims to refocus the health system to

promote good health and decrease the burden of chronic disease. In the area of cancer care, the initiative aims to improve communication, accessibility and integration between care services through a MDC strategy.

An effective multidisciplinary approach can result in a number of positive outcomes for patients receiving the care and health services overall. Some of these benefits may be evident in the short term and some will become apparent over time.

Improved treatment planning that's patient centred: Individual patients will be offered the most appropriate treatment for their condition because management plans would be based on a broad range of expert knowledge that is up to date⁹ and follows evidence based guidelines. Patients should feel reassured that specialists in their care are working collaboratively¹⁰ and will carefully consider treatment options from different perspectives. A coordinated treatment and follow up plan would result in reduction in delays¹¹ in treatment as well as more consistent information for the patient because each team member is aware of their role in the patients care.

Survival benefits for cancer patients^{13,17,18}: For women with breast cancer there is evidence that MDC has the potential to reduce mortality, improve quality of life and reduce health care costs¹². In Australia, MDC is widely recommended as the preferred approach to managing breast cancer as it was recognised that without multidisciplinary input, treatment options for these women may be limited to those that are within the field of expertise of the individual clinician and psychosocial issues may not be considered¹³.

A retrospective study out of Scotland of 533 cases of ovarian cancer in 1987 provided evidence that improved survival was associated with management by a MDT¹⁴. Another Scottish study¹⁵ that compared the treatment of patients with inoperable NSCLC before and after the introduction of MDT working found that median survival in 2001 was 6.6 months compared with 3.2 months in 1997. The introduction of MDT was associated with an increase in the proportion of patients being staged and a change in treatment; more patients received chemotherapy and fewer received palliative care only. Findings from another study suggest that MDT management is associated with improved outcomes after surgery for oesophageal cancer¹⁶. Sixty seven consecutive patients with oesophageal cancer who were managed by the MDT from 1998 to 2003 were compared with a control group of 77 consecutive patients who were diagnosed with oesophageal cancer and had surgery with curative intent by six general surgeons in 1991 – 1997. The proportion of patients who had optimum staging investigations increased significantly, operative mortality decreased and survival at 5 years for patients improved. Improved patient outcomes are possibly the strongest argument for multidisciplinary cancer care.

Single site of care: A multidisciplinary model of care has been described as a 'one stop shop'¹⁹ for the patient ie the patient comes to one outpatient clinic and is seen by the appropriate caregivers eg a surgeon, radiation oncologist, nurse in the same clinic on the same day. The patient is not handballed from one clinic to another and it is a much more efficient way for the patient to have access to all their options and decide on a treatment plan. Clinics may be organ specific eg. breast cancer clinic or disease specific eg melanoma clinic. A clinic visit fee charged to the patient would significantly reduce the cost for the individual compared to multiple, separate clinic fees¹⁹.

Recognition of the psychosocial needs of the patient²⁰: Quality of life measures are an integral aspect to providing quality cancer care. The multidisciplinary clinic can offer patient education programs, psychosocial support programs and rehabilitative

services. These services require input from nurses, social workers, physiotherapists and dieticians. It has been found that the contribution of a psychiatrist can significantly enhance the psychosocial support available to a patient¹⁹.

Less service duplication, improved coordination of services and development of clear lines of responsibility between members of the multidisciplinary team¹⁷: Each member of the team must be aware of the other members role and recognize their unique contribution. Through regular meetings, team members will become more aware of efficient ways of treatment planning for example via regular feedback from each member about a patients disease/treatment status, simplification of referral processes between professionals and avoiding repeat examinations and investigations²¹.

Learning and educational opportunities for team members: As a result of the complexity of cancer care and the emergence of many promising potential therapies, it is a very challenging task for one clinician to keep themselves up to date. A MDT meeting is an effective way for clinicians to keep in touch with their colleagues from other disciplines^{21,22,23} and over the space of a couple of hours per week, keep themselves up to date with the potential options that can be offered to their patient. It is also a great chance for a clinician to bounce ideas off their colleagues and benefit from their opinion²⁴. This will result in the care plan to be a collaboration of evidence based practice, 'experience' of the clinicians present as well as patient factors enabling an optimal management plan.

Improved team communication: MDT meetings can enhance communication between GPs and hospital based specialists leading to better coordination of referral, diagnosis and staging and earlier assessment by surgeons and oncologists²⁵. Through MDTs, it can be assured that the consultant surgeon has radiological information about the patient at the first visit as well as knowledge of the medical adjuvant therapies that the patient would be suitable for. This sort of approach will lead to shared decision making that is more likely to result in better patient outcomes. Results of a study of breast cancer teams emphasised the role of the team leader in the promotion of good communication between team members and conflict over leadership and lack of clarity about a team members role as negative predictors of effective internal communication²⁶.

Cons of multidisciplinary care....and potential solutions

It is clear that barriers to MDC and the lack of incentives for its practice have held back its dissemination throughout cancer institutions. Such barriers include professional and institutional resistance, logistical difficulties, lack of manpower, miscommunication and economic ramifications¹².

Time consuming and lack of attendance^{27,28,29,30,31}

Studies have shown that due to lack of time not all MDTs involved in cancer care met on a weekly basis especially those specialists eg radiologists and pathologists who worked with several different types of cancer finding it particularly difficult to allocate time for meetings. This problem was compounded by the specialities whose consultants were already in short supply. In Australia the problems of lack of workforce and caseload issues and geographical distance of clinicians are particularly apparent in rural and remote areas³². If problems in attendance are because of geographical location, videoconferencing or telemedicine could be a potential solution however this will not resolve shortage of time, staff or inconvenient meeting times.

Each case presentation requires preparation by the oncologist, radiologist, pathologist which takes more time especially if every patient attending a particular clinic or all newly diagnosed patients were to be reviewed. It can also be very time consuming when not all of those present are going to be involved in every case and it can burden some participants disproportionately. A survey of 136 surgeons examined attendance levels at meetings by different members of the breast cancer team²⁸, and found that over 95% of surgeons and breast care nurses and 90-95% of radiologists and pathologists were present for the whole meeting. By contrast only 70% of clinical oncologists and 44% of medical oncologists attended the entire meeting. It is obvious that without the key members present for meetings, quality MDC for a patient cannot be achieved secondary to poor information sharing, poor communication, lack of specialist input and coordination or follow up of a treatment plan.

MDTs should focus on patients whose care is difficult, who are about to undergo a change in their treatment and preop/post-op patients rather than all patients. There needs to be health service support for clinicians to provide MDC and clinical loads need to accommodate multidisciplinary activities undertaken by all team members^{6,12}. Contracts or agreements signed between diagnostic services and health services need to reflect the expectation that pathologists and radiologists will attend meetings to enable the team to hear their reports. Processes for communicating treatment and care plans to team members who are absent need to be developed and implemented. Recognition that all team members need support and supervision on a regular basis and providing opportunities to take advantage of this service will enhance the performance of individuals and consequently the team.

Lack of administrative support – A study of colorectal cancer teams³⁰ revealed that 62% (102 of 165) had difficulty running their meeting and of these 32% did not have a dedicated MDT clerk. Lack of support also includes lack of physical facilities for meetings such as a suitable room that is always available, with the required technological requirements as well as lack of clerical support for the documentation and implementation of decisions made by the team²⁹. The main requirements for effective MDT meetings in terms of administrative support include a person who is in charge of recording all data presented for each patient in the medical record, a person who is in charge of organising meeting venue, time, agenda preparation, relevant equipment and technological support and catering⁶. These steps will help ensure that teams accept the multidisciplinary team meeting as a part of their regular work.

Economic sustainability: Economic reasons usually underlie the administrative barriers since there is additional cost and inefficiency introduced with multidisciplinary care. There is no Australian data on cost effectiveness of multidisciplinary cancer care, however a study by Fader et al in the US found the cost for MDC of inpatients with melanoma in the US to be cost effective.³³ In Australia there are considerable difficulties in running an integrated MDT in the private sector due to funding constraints. There are no appropriate MBS items for most specialists and little or no funding for specialised support eg for therapists, psychologists and counsellors. The Health Action Plan agreed to by the Council of Australian Governments (COAG) in February 2006 recognised the need to improve access to MDC for all cancer patients. The Plan promotes the uptake of MDC through the provision of a new MBS item to support case conferencing for cancer specialists from November 2006.³⁴

Lack of standards of care: In the case of MDC in breast cancer may women hear conflicting recommendations from their gynaecologists, medical oncologists, GPs, surgeons and providers of alternative medical therapy such as herbal therapy and

acupuncture¹². A hierarchy of possible recommendations that use relative levels of evidence should be developed at multidisciplinary meetings so the different practitioners can present a coordinated unified recommendation¹². Quality of care can be ensured through implementing treatment protocols and recommendations that are in line with current best practice, clinical practice guidelines, research and currently accepted approaches to treatment. This will save time and avoid the need for multiple visits or the anxiety, confusion and distrust that result in patients from conflicting opinions and management plans. Additionally patients should be informed about MDC and the meeting process including presentation of clinical and supportive care information and their consent should be sought prior to presentation of their case. Patients should be offered information about all their treatment choices including team recommendations but ultimately the final decision about their care will come from the patient. Monitoring of activities and review of MDC should be undertaken through audit, clinical review and peer review and professional development activities should be supported and provided for all team members.^{21,35,36}

A medical students perspective

The National Breast Cancer Centre (NBCC) has taken a leading role in investigating and promoting the benefits of and practical approaches to the implementation of multidisciplinary cancer care in Australia. A further initiative undertaken in 2005 was a series of State/Territory forums - a collaboration between NBCC, Governments and Cancer Councils - designed to promote local discussion of barriers and solutions to the implementation of MDC. As a medical student, I have had the opportunity to observe and participate in MDT meetings and below are a few ways I believe multidisciplinary cancer care in Australia can be improved:

- Recognition of the holistic nature of cancer care, thereby encouraging the general practitioner and allied health to have a more prominent role in team meetings and treatment plans.
- Introduction to the concept of, benefits and pitfalls of multidisciplinary care at the undergraduate level for medical, nursing and allied health students including follow up of a cancer patient from diagnosis to management.
- Development of standard templates that can be used to record MDT decisions and treatment plans at meetings
- Recognition that not all MDC models will fit a particular patient or cancer delivery service and flexibility is required especially in rural settings or when dealing with patients with religious or culturally different needs eg Aboriginal/Torres Strait Islanders.
- Promotion of an interprofessional practice and the willingness to work collaboratively across different specialities.
- Discussion at team meetings and with the patient of the eligibility/willingness of a patient to participate in clinical trials³⁷.

Advances in the evaluation and treatment options for patients with cancer are increasing at a faster pace than ever before. Unlike what existed ten years ago, there is an increasing array of multimodal therapies available to a patient and often the right choice of treatment can be a complex decision for the clinician to make. The argument for MDC in cancer cannot be refuted – the team approach to a patients care that is offered by multidisciplinary units results in better patient outcomes, patient satisfaction, a patient centred, coordinated and organised treatment plan that doesn't rely on a single specialist. However, it is clear that at present MDC in cancer both in Australia and around the world has its flaws and the challenge will be to recognise and overcome those barriers with a view to widen the availability of MDC to all patients with cancer.

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