

# Multidisciplinary breast cancer teams and proposed standards

Sertaç Ata Güler<sup>1,2</sup>, N. Zafer Cantürk<sup>1,2</sup>

## ABSTRACT

Multidisciplinary approach is recommended for the diagnosis and treatment of cancer, in order to optimize quality of life and survival. Multidisciplinary cancer teams that are used for this purpose enable communication between professionals. Multidisciplinary cancer meetings are pre-programmed regular meetings where cancer patients are evaluated on an individual basis, and where the multidisciplinary treatment of patients is planned based on evidence. Currently, application of appropriate treatment in a timely manner carries as great significance as early diagnosis. For this purpose, standards of multidisciplinary approach are significant. Disease specific multidisciplinary breast cancer meetings are essential in the treatment of breast cancer. The standards and organization of these teams have been scientifically determined. It is recommended that these multidisciplinary breast cancer meetings should be held regularly and the required infrastructure should be provided.

**Key Words:** Breast cancer, multidisciplinary communication, standardization

## INTRODUCTION

In the modern age, a multidisciplinary approach is required for the diagnosis and treatment of cancer in order to optimize the quality of life and lifetime expectations of the patients (1). Multidisciplinary cancer councils employed for this purpose offer opportunities to enable communication among professionals (2, 3). Multidisciplinary cancer councils are pre-planned, regular meetings where cancer patients are individually reviewed and patient treatments are planned in a multidisciplinary fashion via the use of evidence-based data (4, 5). It has been demonstrated that a multidisciplinary approach increases the lifetime expectations; the benefits of this approach also include improvement in outcome in old patients, increase in the rates of resection in lung cancer, and better treatment and follow-up of hypertension. Multidisciplinary approach prevents unnecessary diagnostic interventions and saves time. The patients are treated based on the recommendations by the same guidelines and at the same standards. This approach provides learning opportunities for newly trained physicians and other professionals, as well (6).

## A Multidisciplinary Approach for Breast Cancer

Breast cancer is an entity that becomes more prominent day by day, with increasing importance. The increase in the incidence and mortality of breast cancer also affects the medical approach towards breast health. Considering the renewed medical technologies and treatment alternatives, the importance of the quality to be offered for breast health becomes obvious. There are essentially two approaches in breast health-care services. The first one is the individual approach. In contrast with this conventional type of approach, the multidisciplinary approach, which is contemporary and modern, has emerged today (7). The multidisciplinary approach to breast diseases firstly paved the way for the establishment of breast centers at the University of California, Los Angeles-UCLA under the leadership of Silverstein in 1973. Breast centers can be established in a public or private hospital-based manner (8). The multidisciplinary approach is best represented within the structure of "breast unit / breast center" where various branches serve in unison. A breast center is termed as the collaboration of a group of experts working essentially on breast cancer at a single building; however, it does not essentially have to be within the same building.

This service can still be offered on the basis of the concept of breast unit in places that are at a reasonable distance from one another, thus multidisciplinary approach can be provided even in separate buildings. As required by standards, 30-40 breast units (centers) are required for every population of ten million people. Accreditation in breast health-care services has become a requirement to increase service quality (7). It is more appropriate that the accreditation of breast centers be carried out by breast health specialists, who are representatives of the related national professional organizations (8).

The multidisciplinary approach is also adopted in academies that are active in Europe and Turkey, which provide training on breast cancer to general surgeons, plastic surgeons and obstetricians by

<sup>1</sup>Department of General Surgery, Kocaeli University Faculty of Medicine, Kocaeli, Turkey

<sup>2</sup>Senaturk, Senoloji Academy, İstanbul, Turkey

## Address for Correspondence Sertaç Ata Güler

Department of General Surgery, Kocaeli University Faculty of Medicine, Kocaeli, Turkey

Phone: +90 505 393 52 40

e-mail:

drsataguler@me.com

Received: 28.03.2014

Accepted: 02.06.2014

Available Online Date: 20.10.2014

©Copyright 2015  
by Turkish Surgical Association  
Available online at  
www.ulusalcerahidergisi.org

following new training steps as opposed to the conventional system (9).

The multidisciplinary approach enables the optimization of patient results at breast cancer councils (10). It was shown in a study that the treatments of patients were modified by 43-52% when a second opinion was received from a tertiary care center (11). According to a study conducted on 149 patients, it was seen that radiology interpretations changed in 45% of the cases, and this resulted in a modification of the surgical method at the multidisciplinary breast cancer councils in 11% of patients. Similarly, it was shown that the pathology result changed by 29% based on a discussion of the patients' pathology results at multidisciplinary breast cancer councils, and this change in the pathological result modified the surgical method by 9%. Independent of the pathology and radiology discussions, the surgical management is modified by 34% when the medical oncologists and radiation oncologists discuss the situation of the patient (12). According to a study, a multidisciplinary breast cancer council is active in 26 out of 42 medical centers (13). With the multidisciplinary approach, breast conserving surgery is performed at a higher rate, neo-adjuvant treatment administration rate becomes higher and the interval between treatments becomes shorter. In summary, a longer survival can be achieved (13). However, interdisciplinary collaboration may be prevented by several reasons such as the lack of a coordinator, absence of a fixed meeting place, failure to determine a fixed time slot and lack of attendance by participants. It may become rather challenging to organize regular multidisciplinary meetings.

#### **Standards of the Multidisciplinary Breast Cancer Councils**

In Canada, a guide emphasizing the structure and functions of multidisciplinary cancer councils was published in the year 2006 by "Ontario Cancer Care" regarding the requirement to organize, develop and maintain multidisciplinary cancer councils (2, 4, 14). This guide was based on review of the literature, and online documents of organizations and hospitals with active multidisciplinary cancer councils (2, 14). The standards of multidisciplinary breast cancer councils were also created on the basis of this guide.

The primary function of a multidisciplinary breast cancer council is that it enables a multidisciplinary platform for appropriate diagnostic tests, discussion of treatment operations and recommendations for cancer patients (2, 7). The aim of diagnosis-oriented meetings is to correctly and rapidly make the diagnosis, ensure interdisciplinary communication and to enhance education within every discipline. The treatment-oriented multidisciplinary meetings enable timely, adequate and accurate data collection, preparation of satisfactory pathology reports and provision of the necessary adjuvant therapies for patients in a timely and correct fashion (7). In this platform, the patients are primarily referred to the coordinator. Then, the chairman of the multidisciplinary breast cancer council and the patients' own physicians decide on which patients to discuss. Patient privacy is observed by all the participants (2, 14).

Education of medical personnel and healthcare professionals, contribution to the development of standard methods for patient care and to clinical research, establishment of connection

among regions for assuring a proper referral chain can be listed as secondary functions of multidisciplinary councils (2, 14).

Multidisciplinary breast cancer council should gather at least once every two weeks and should not last for less than one hour (15). The ideal option is that they meet on a specified date and time. It is considered that it would be effective for the council to meet once a month (14). The meetings may include new cancer cases, recurrent cases and additional follow-ups for previously assessed cases. The objective should be not only to discuss and advise on the cases, but also to handle the educational needs of participants (2).

It is required to have a written protocol for a multidisciplinary breast cancer council. The list of participants should be recorded at every meeting. Every multidisciplinary cancer council should include one chairman and one coordinator in charge of the management and organization of the meeting. The chairman does not have to be a physician. S/he would be responsible for the functioning of the multidisciplinary breast cancer council. S/he would enable that all the cases be discussed in the allocated span of time. S/he should have good communication with the members, encourage their participation and be in charge of ensuring that the discussion environment is kept democratic and patient privacy is respected. S/he would guide the members via questions if clarity cannot be achieved about decisions (6). As for the coordinator, s/he is generally not a physician. S/he is the key person to ensure the continuity of the multidisciplinary breast cancer council. S/he would prepare a list of the cases referred by their physicians. S/he would arrange the meeting room and ensure the required equipment is available. S/he would inform all core members and invite the guests. S/he would enable that all the current information of the patients, especially their slide and radiology images, are pre-loaded to the computer before the meeting. S/he would follow up information such as the number of patients referred and those who are discussed at the council. S/he would document meeting activities and recommendations (1, 2).

It is more appropriate if the physician managing the discussed patient participates at the multidisciplinary breast cancer council. If s/he is unable to present his/her patient at the council, the doctor should appoint a representative by protecting the patient's privacy. The patient information should be presented in an efficient and concise manner; the presentation may be oral, yet it should be supported by projection (16). The person who makes the presentation needs to have full knowledge of the important characteristics of the case. The fact that the patient talks to different specialists at the same time prevents the potential bias during the communication of the decision; if that is not possible, the patient's physician or representative discusses the results and treatment options achieved at the council with the patient for the final result (6). S/he would include the council recommendations and the final decision by the patient in the medical records (2).

Additionally, one representative each from the departments of medical oncology, radiation oncology, surgery/surgical oncology, pathology, radiology and nursing should be present at the council to make sure that the opinions of all specialists are heard (15). Depending on the case, nuclear medicine specialists, dieticians, dentists, psychiatrists, residents and students

may also be part of the council. These individuals should also be in contact in terms of announcing educative meetings and monitoring developments to fulfill the council protocol (1, 2).

If all required specialists are not present at the hospital, contact may be established with other hospitals by means of teleconference or videoconference, as well (8). It is not appropriate for industry participants to be part of the council in order to protect patient privacy and prevent bias. Furthermore, the participation of patients and their representatives is not recommended as it may result in bias, either (2).

The data obtained from the multidisciplinary breast cancer council should be stored interactively in the computerized environment. The data of the patient should be able to be entered into the system, updated and its continuity maintained (14). Especially, the required patient images should be stored. There are several studies on the requirement of modern technological equipment such as interactive computer systems, Internet access, scanner and videoconference equipment. Furthermore, it is also highlighted that dedicated meeting rooms, as well as less technological projectors to show radiology images and pathology slides, are essential (2, 16).

The patients may be handled at varying levels by different healthcare centers. Eventually, these councils may hold more frequent meetings at such centers. In other centers, it may be on a more specific basis. Lack of required equipment should not prevent the council from holding its meetings. For example, discussion may be done by means of e-mail, and the patient information is kept anonymous in cases where videoconference is not possible (2, 16). The participating centers should definitely have written protocols. Such a protocol outlines the center-specific instructions, core members and disciplines as well as their roles and responsibilities, meeting format, frequency, duration, discussion flow and finally the way in which patient privacy is to be assured while selecting and reviewing cases (2, 12).

## CONCLUSION

Currently, administration of the appropriate therapy according to standards is as important as early diagnosis. For that purpose, the standards of a multidisciplinary approach are significant. As for the breast cancer and its treatment, establishment of multidisciplinary breast cancer councils specific for this disease is essential. The standards and functioning orders of these councils are scientifically established. If a multidisciplinary team cannot be gathered, there would be a delay in the start of treatment, i.e., loss of time as well as economic losses due to inclination towards unnecessary studies and treatments. Therefore, multidisciplinary breast cancer councils need to hold regular meetings and the required support should be provided to achieve this aim.

---

Peer-review: Externally peer-reviewed.

**Author Contributions:** Concept - S.A.G., N.Z.C.; Design - S.A.G., N.Z.C.; Supervision - S.A.G., N.Z.C.; Funding - S.A.G., N.Z.C.; Materials - S.A.G., N.Z.C.; Data Collection and/or Processing - S.A.G., N.Z.C.; Analysis and/or Interpretation - S.A.G., N.Z.C.; Literature Review - S.A.G., N.Z.C.; Writer - S.A.G., N.Z.C.; Critical Review - S.A.G., N.Z.C.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

## REFERENCES

1. Kagan AR. The multidisciplinary clinic. *Int J Rad Oncol Biol Physics* 2005; 61: 967-968.
2. Wright FC, De Vito C, Langer B, Hunter A; Expert Panel on the Multidisciplinary Cancer Conference Standards. Multidisciplinary cancer conference standards. Toronto (ON): Cancer Care Ontario; 2006 Jun 1 [In review 2011 Sep]. Program in Evidence-based Care Evidence-based Series MCC Standards Special Report IN REVIEW.
3. Ko C, Chaudhry S. The need for a multidisciplinary approach to cancer care. *J Surg Res* 2002; 105: 53-57.
4. Hong NJ, Wright FC, Gagliardi AR, Brown P, Dobrow MJ. Multidisciplinary cancer conferences: exploring the attitudes of cancer care providers and administrators. *J Interprof Care* 2009; 23: 599-610.
5. Wishart DL. Letter: Is the tumor board doomed? *JAMA* 1976; 236: 1235-1236.
6. Ruhstaller T, Roe H, Thürlimann B, Nicoll JJ. The multidisciplinary meeting: An indispensable aid to communication between different specialties. *Eur J Cancer* 2006; 42: 2459-2462.
7. Güler SA, Güllüoğlu BM. Requirement for quality assurance and accredited centers in breast health care. *J Breast Health* 2014; 10: 129-133.
8. Winchester DP. The national accreditation program for breast centers: a multidisciplinary approach to improve the quality of care for patients with diseases of the breast. *Breast J* 2008; 14: 409-411.
9. Yilmaz OC, Cantürk NZ, Kebudi A, Güler SA, Erkek A, Rezaei M, et al. The emerging role of national academies in surgical training: an inspiring environment for increasing the quality of health care in breast cancer management. *J Cancer Educ* 2014; 29: 395-400.
10. Chang JH, Vines E, Bertsch H, Fraker DL, Czerniecki BJ, Rosato EF, et al. The impact of a multidisciplinary breast cancer center on recommendations for patient management: the University of Pennsylvania experience. *Cancer* 2001; 91: 1231-1237.
11. Wright FC, Lookhong N, Urbach D, Davis D, McLeod RS, Gagliardi AR. Multidisciplinary cancer conferences: identifying opportunities to promote implementation. *Ann Surg Oncol* 2009; 16: 2731-2737.
12. Newman EA, Guest AB, Helvie MA, Roubidoux MA, Chang AE, Kleer CG, et al. Changes in surgical management resulting from case review at a breast cancer multidisciplinary tumor board. *Cancer* 2006; 107: 2346-2351.
13. Cantürk NZ, Güllüoğlu BM. Differences in diagnosis and surgical treatment of breast cancer among university hospitals in Turkey. *J Breast Health* 2011; 7: 207-215.
14. Wright FC, De Vito C, Langer B, Hunter A; Expert Panel on Multidisciplinary Cancer Conference Standards. Multidisciplinary cancer conferences: a systematic review and development of practice standards. *Eur J Cancer* 2007; 43: 1002-1010.
15. Gulluoglu BM, Ugurlu MU, Canturk NZ, Gultekin M, Tuncer M. Breast Cancer in Turkey. In: Boyle P, Autier P, Adebamowo C, Anderson B, Pinillos AL, Badwe RA, Yamaguchi N, eds. *World Cancer Report 2012*. Lyon, France: International Prevention Research Institute; 2012.p.247-258.
16. Macaskill EJ, Thrush S, Walker EM, Dixon JM. Surgeons' views on multi-disciplinary breast meetings. *Eur J Cancer* 2006; 42: 905-908.