

References

1. Neoptolemos JP, Stocken DD, Friess H, et al: A randomized trial of chemoradiotherapy and chemotherapy after resection of pancreatic cancer. *N Engl J Med* 350:1200-1210, 2004
2. Spitz FR, Abbruzzese JL, Lee JE, et al: Preoperative and postoperative chemoradiation strategies in patients treated with pancreaticoduodenectomy for adenocarcinoma of the pancreas. *J Clin Oncol* 15:928-937, 1997
3. Griffin JF, Smalley SR, Jewell W, et al: Patterns of failure after curative resection of pancreatic carcinoma. *Cancer* 66:56-61, 1990
4. Hoffman JP, Lipsitz S, Pisansky T, et al: Phase II trial of preoperative radiation therapy and chemotherapy for patients with localized, resectable adenocarcinoma of the pancreas: An Eastern Cooperative Oncology Group study. *J Clin Oncol* 16:317-323, 1998
5. Pipas JM, Mitchell SE, Barth RJ Jr, et al: Phase I study of twice-weekly gemcitabine and concomitant external-beam radiotherapy in patients with adenocarcinoma of the pancreas. *Int J Radiat Oncol Biol Phys* 50:1317-122, 2001
6. Pipas JM, Barth RJ Jr, Zaki B, et al: Doxetaxel/gemcitabine followed by gemcitabine and external beam radiotherapy in patients with pancreatic carcinoma. *Ann Surg Oncol* 12:995-1004, 2005
7. Evans DB, Varadhachary GR, Crane CH, et al: Preoperative gemcitabine-based chemoradiation for patients with resectable adenocarcinoma of the pancreatic head. *J Clin Oncol* 26:3496-3502, 2008
8. Varadhachary GR, Wolff RA, Crane CH, et al: Preoperative gemcitabine and cisplatin followed by gemcitabine-based chemoradiation for resectable adenocarcinoma of the pancreatic head. *J Clin Oncol* 26:3487-3495, 2008
9. Greer SE, Pipas JM, Sutton JE, et al: Effect of neoadjuvant therapy on local recurrence after resection of pancreatic adenocarcinoma. *J Am Coll Surg* 206:451-457, 2008
10. Chang JH, Vines E, Bertsch H, et al: The impact of a multi-disciplinary breast cancer center on recommendations for patient management: The University of Pennsylvania experience. *Cancer* 91:1231-127, 2001
11. Newman EA, Guest AB, Helvie MA, et al: Changes in surgical management resulting from case review at a breast cancer multidisciplinary tumor board. *Cancer* 107:2346-2351, 2006
12. Gutmann EJ: Pathologists and patients: Can we talk? *Mod Pathol* 16:515-518, 2003
13. Pawlik TM, Laheru D, Hruban RH, et al: Evaluating the impact of a single-day multidisciplinary clinic on the management of pancreatic cancer. *Ann Surg Oncol* 15:2081-208, 2008
14. Gardner TB, Chari ST: Endoscopic ultrasonography and pancreatic cancer. *Minerva Gastroenterol Dietol* 54:161-176, 2008
15. Ouwens M, Hulscher M, Hermens R, et al: Implementation of integrated care for patients with cancer: A systematic review of interventions and effects. *Int J Qual Health Care* 21:137-144, 2009
16. Bodenheimer T, Wagner EH, Grumbach K: Improving primary care for patients with chronic illness: The chronic care model, Part 2. *JAMA* 288:1909-1914, 2002
17. Mur-Veeman I, Hardy B, Steenbergen M, et al: Development of integrated care in England and the Netherlands: Managing across public-private boundaries. *Health Policy* 65:227-241, 2003
18. Ouwens M, Wollersheim H, Hermens R, et al: Integrated care programmes for chronically ill patients: A review of systematic reviews. *Int J Qual Health Care* 17:141-146, 2005
19. Hui D, Elsayem A, De la Cruz M, et al: Availability and integration of palliative care at US cancer centers. *JAMA* 303:1054-1061, 2010
20. Murthy VH, Krumholz HM, Gross CP: Participation in cancer clinical trials: Race-, sex-, and age-based disparities. *JAMA* 291:2720-2726, 2004
21. Birkmeyer JD, Stukel TA, Siewers AE, et al: Surgeon volume and operative mortality in the United States. *N Engl J Med* 349:2117-227, 2003



A Patient's Perspective on the Multidisciplinary Liver/Pancreas Tumor Clinic: An All-in-One Resort

By Elaine Gantos-O'Brien

Utica Community Schools, Macomb, MI

My story starts on July 20th when I was at my primary care doctor's office receiving an ultrasound of my gallbladder. I had been experiencing unusual symptoms over the past several months, and up until that day, no one could find the source of my problem. Little did I know that major trouble was lurking in the background and that help would come from the Multidisciplinary Liver/Pancreas Tumor Clinic.

While the technician was performing the ultrasound, I said to her, "That is the spot that hurts. It is right there. Keep digging. You have it!" A few minutes after the test, I consulted with my doctor. The results were not good, and he was concerned that I might have pancreatic cancer.

The next day I had a computed tomography (CT) scan, and that afternoon the phone rang. It was devastating news. My doctor informed me that the radiologist thought I had cancer and that he wanted me to see a surgeon who is a specialist of the liver and pancreas. My appointment was scheduled for the following Monday.

Shortly after my doctor talked to me, the nurse navigator from the Liver/Pancreas Clinic called me to explain all the necessary tests that needed to be done before my appointment.

She also made sure I understood all the details of the tests and how they fit into the decision making of the doctors investigating my case. She scheduled a magnetic resonance imaging (MRI) scan for the next day.

I was heartbroken with the news. The navigator was very reassuring and did not want me to panic. In her calm and sweet voice, she explained to me that they have many pancreatic cancer survivors. She told me that on Monday morning my CT scan, blood work, and MRI would be presented to a team of 50 medical personnel. I felt fortunate and relieved that so many people would be examining my case. I thought "more heads are better than one."

There are many benefits of having a nurse navigator. I was overwhelmed by the news of having pancreatic cancer and was being treated at a huge hospital with several campuses. The nurse navigator was someone I could talk to, and she clearly cared about me. She knew all the necessary connections at the hospital and was able to take a large institution and turn it into a cozy neighborhood. With her guidance, I had an easy time working my way through the hospital, getting the best health care. The nurse navigator translated the expertise of the medical team and gave me confidence. She was the patient advocate who

knew all the contacts necessary to get things done in an efficient, timely manner. Her personal touch helped me sort out any confusion, and she was always available for questions. The nurse navigator was my quarterback. Her help and guidance relieved a tremendous amount of stress.

After 6 days, I went to see the surgeon at the Multidisciplinary Liver/Pancreas Tumor Clinic. He met with the tumor board that morning, went over all of my tests, and came up with a treatment plan for me. Brain power, timing, and care were essential in helping me on my way to a speedy recovery.

My surgeon is an amazing physician, and I was so blessed to have him take care of me. He clearly knew his craft and was a recognized specialist in pancreatic cancer. He is involved in research at the hospital campus overseeing two studies that will help define early pancreatic cancer detection. I was quite impressed by this research. He sat down with me, shared the concerns of the medical team, and stated he wanted to do a biopsy on my pancreas. He showed me a sketch of the abdominal area, highlighted in different colors where the tumor was, and explained his suspicions. Within 2 days of my office visit, he performed the biopsy. I was amazed at how quickly he was able to schedule my procedure. I will never forget him telling me that he would take care of me as if I were his own wife. I knew at that point that I was going to get the best care.

On that same day, I went to see my oncologist. Her office was literally two minutes from the surgeon's office. When I arrived, the medical team already knew the plan and was able to explain it to me. I found the oncologist to be an intelligent, kind, and positive woman who is very particular about each of her patients. I was impressed with her depth of understanding of my situation and with how knowledgeable she was about pancreatic cancer. She was following the most effective protocol for treating my cancer and shared with me that she had experienced great success with it. I was very optimistic after meeting with her. She explained my options, then distilled her recommendations. At the conclusion of the visit, I was scheduled for the chemotherapy treatments.

After that appointment, I went to see the radiation specialist, who was also only minutes from my oncologists' office. He was very empathetic and a genius at his work. He explained why I needed radiation, how many treatments I would have, and where he was going to target the radiation. He too had met with the tumor board and had collaborated with the nurse navigator, surgeon, and oncologist.

Receiving care at the Multidisciplinary Liver/Pancreas Tumor Clinic is like going to an all-in-one-resort. Everything you need is within a short walking distance. I was fortunate to see all three doctors and the nurse navigator in 1 day. What I learned from my oncologist dovetailed with the information that the surgeon gave me, and the radiation specialist added the third piece of the puzzle to give me a complete picture of their multidisciplinary approach. They clearly had developed a plan together. Furthermore, I felt I was part of the team instead of feeling that the medical team was against me. Each doctor knew their job and when and how it needed to be carried out. If I had questions, it seemed any of the doctors could answer it. The

greatest benefit was that I was able to walk out in 1 day with a treatment plan in place, rather than having to wait several weeks wondering what treatment I was going to receive. Time is of the essence when you have an aggressive cancer. The doctors, nurse navigator, and tumor board met and made the necessary decisions, and I felt good I had a game plan I could follow.

Two days after my initial Monday visit, my surgeon performed the biopsy. On Friday, he called me with the results. He confirmed that I had pancreatic cancer, and he wanted to start the treatment immediately. In a way, I was relieved to know the source of my problem. Needless to say, I was disappointed to find out it was pancreatic cancer.

All of my treatments were scheduled in one building. At first, I had 7 weeks of chemotherapy treatments. During week 7, radiation was introduced, and I was given 15 consecutive radiation treatments. During part of the radiation, I endured three more chemotherapy treatments. The doctors worked together in scheduling my appointments, as there were some days I had both treatments. It was convenient to have the treatments scheduled so close together. Once a week, I would meet with the radiation oncologist after my radiation treatment. He came to see me right at the radiation site. He wanted to know how I was feeling and offered me suggestions to help alleviate any of my discomfort. He was always very encouraging. I saw the oncologist every 3 to 4 weeks. She made sure on the weeks I did not see her that I would meet with one of the physician assistants. She was only a phone call away if I needed her.

There were also times when I needed to report back to the nurse navigator. It was so easy for me to drop in and see her after seeing one of the other doctors.

The tumor board, which included the surgeon, oncologist, radiation doctor, nurse navigator, and a team of medical staff, met again before my surgery and discussed my case while reviewing my CT scan, blood work, and other relevant information. They recommended surgery for me.

I had my Whipple surgery on November 2nd. The surgeon met with my husband and me the day before my surgery and explained everything to us. After 10 hours of surgery, the cancer had been successfully removed. During my stay at the hospital, the surgeon came to see me every day, the oncologist stopped by a few times, and even the nurse navigator came to see me. The tumor board met a third time after my surgery. All doctors were on the same playing field, and they had decided on a plan of action once again.

The Multidisciplinary Clinic also offers other services such as access to a social worker and a dietitian. I did not need the social worker but found the dietitian quite helpful. I saw her at the surgeon's office right away after my 2-week postoperative appointment with him. Once again, the process was made easy for me as a patient. I did not have to call and wait a few weeks to make an appointment with her. I left that day with my dietary questions answered. My surgery was followed up with eight more chemotherapy treatments. Through it all, I made a few contacts with the nurse navigator, who helped arrange physical therapy appointments after my surgery. She always welcomed my questions.

If I had the chance to add one thing to this whole process, it would have been the opportunity to talk to a positive and en-

couraging pancreatic cancer survivor during a few of my treatments. With this opportunity, I would have been able to discuss how patients with similar treatments had managed and coped with some of their adverse effects. I would have been able to compare their adverse effects to what I experienced during my radiation, chemotherapy, and Whipple surgery.

For someone with the complex and frightening problem of pancreatic cancer, my experience at the clinic was as emotionally painless as it could be. On reflection, the distinction of the Multidisciplinary Clinic is the culture that exists. It is clear that these doctors developed a philosophy of care that was reflected by all of the staff, who all believed in and worked toward being part of this culture. The doctors, nurses, and receptionists all had the patient as their primary concern. This culture was manifest by the competent staff expressing a sense of urgency to get the job completed, and by the convenience of being able to see all the necessary medical staff in one day. The end result was that I was able to leave at the end of the first day with an effective action plan. Without a plan I would have left with a big hole in the puzzle, which works against the patient.

The trouble that was lurking in the background in July came to the foreground. It was dealt with and successfully treated by this wonderful, dedicated multidisciplinary team. I hope that these words will serve as a stimulus for oncologists to recognize the value of working together and developing cultures of care like the one I experienced. It certainly paid off, as I am happy to say I am cancer free.

Accepted for publication on September 16, 2010.

Author's Disclosures of Potential Conflicts of Interest

The author indicated no potential conflicts of interest.

Corresponding author: Elaine Marie Gantos-O'Brien, Utica Community Schools, 52699 Sawmill Creek, Macomb, MI 48402; e-mail: cedarego@comcast.net.

DOI: 10.1200/JOP.2010.000040

Does Multidisciplinary Care Enhance the Management of Advanced Breast Cancer?: Evaluation of Advanced Breast Cancer Multidisciplinary Team Meetings

Jacquie Chirgwin, MA (Oxon), MBBS, FRACP, FRCP (UK), GAICD, Melinda Craike, PhD, Christine Gray, BSc, RN, Dip Ed Nursing, Kathy Watty, RN, RM, Linda Milesbkin, MD, MDDS, FRACP, MBioeth, and Patricia M. Livingston, PhD

Eastern Health, Box Hill; Centre for Behavioural Research in Cancer, The Cancer Council Victoria; Deakin University, Melbourne; Peter MacCallum Cancer Centre, Victoria, Australia

Abstract

Purpose: To assess the contribution of the advanced breast cancer (ABC) multidisciplinary team meetings (MDMs) to patient care and clinical outcomes.

Methods: Members of ABC MDMs at two health services completed questionnaires in November 2007. The questionnaire asked about the performance of the MDMs and their contribution to improvement in patient care in five domains: medical management, psychosocial care, palliative care, care in the community, and benefits for team members. A final section covered the perceived value and importance of the MDM in patient management. Descriptive statistics (frequencies, mean, and standard deviation) were used to summarize the performance, improvement, and importance scores.

Results: A total of 27 multidisciplinary team members (73%) completed the questionnaire. The MDM performed best in medical management (mean performance score out of 5 [M] = 3.78) and palliative care (M = 3.77). These were also the areas that were most improved through the MDM. Benefits to team members and care in the community (both M = 3.05) ranked lowest by both measures. The MDM provided the most benefit for patient management in the areas of "awareness of services available" (M = 4.32), "efficiency of referrals" (M = 4.27) and "supportive care for patients" (M = 4.27). "Awareness of services available," "psychological care for patients," and "continuity of care" were considered the most important (M = 4.64).

Conclusion: The study provides evidence that MDMs make an important contribution to the logistical and medical management of patients with advanced breast cancer.

Introduction

Multidisciplinary care (MDC) describes an integrated team approach to health care in which medical and allied health care professionals consider all relevant treatment options and col-

laboratively develop individual treatment care plans for all patients.^{1,2} In recent years, this approach has become the standard of care in cancer management, and in Australia, the National Breast Cancer Centre formulated principles of MDC and im-