Multidisciplinary Care

Multidisciplinary Cancer Management: A Systems-Based Approach to Deliver Complex Care

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The current issue of *Journal of Oncology Practice* is focused on multidisciplinary cancer care. It seems germane to begin the series with a case presentation. Jane Forbes (not her real name) is a 78-year-old woman who underwent annual screening mammography on January 29, 2010. She resides in a retirement community on the outskirts of a large southern city and is insured by Medicare and a secondary managed care organization. She describes her health as excellent except for well-managed hyperlipidemia and hypertension. The following timeline is based on detailed diary entries that Mrs. Forbes agreed to share with me.

Twelve days after the screening mammogram, Mrs. Forbes was contacted to return for further images. Six days later, her primary care physician notified her that a biopsy was warranted. He referred her to a general surgeon. Twenty-four days after the screening mammogram, Mrs. Forbes met the surgeon for a preoperative visit. Needle localization and biopsy was recommended and performed on day 47 after the original mammogram. On day 57, Mrs. Forbes returned for surgical follow-up. Although the surgeon had described only ductal carcinoma in situ when he had contacted the patient to review results, in the office he noted that the biopsy contained a small focus of invasive cancer. He recommended lumpectomy as the next step, which was undertaken on day 65.

Seventy-seven days after the original mammogram, Mrs. Forbes saw the surgeon for routine follow-up. He said that his work was complete and it was now time for her to meet a medical oncologist. After an urgent call to her primary care physician to obtain a referral, she met a medical oncologist 2 days later. He recommended 5 years of treatment with an aromatase inhibitor and suggested consultation with a radiation oncologist. After a follow-up visit with her primary care provider, and after obtaining the required referral, Mrs. Forbes met a radiation oncologist on day 134. Breast irradiation was recommended, began 9 days later, and was completed on August 16, 2010, more than 6 months after the initial screening mammogram.

Mrs. Forbes was never offered the option of a second opinion at any stage of her treatment nor was she offered the opportunity for a multidisciplinary evaluation. She had no sense that her various physicians were in contact with one another. She suffered severe repeated bouts of anxiety as her care appeared to “hang up” for weeks at a time, awaiting test results, referrals, and appointments. Yet, Mrs. Forbes’ ordeal—disorganized, fragmented cancer care—was provided by compassionate physicians, each of whom did his best job to manage the complexities of early-stage breast cancer.

Contrast her care with that described in this issue by Elaine Gantos-O’Brien, who had a very different experience after being discovered to have a pancreatic mass. Although the ease with which Ms. Gantos-O’Brien was able to interact with a highly complex medical system was aided by a nurse navigator, her care was heavily dependent on the multidisciplinary platform that had been established to treat similar patients, and by a readily identifiable culture of group decision making and patient centeredness. After her first visit, for example, which included meetings with surgical, medical, and radiation oncologists, she was reassured to note that “they clearly had developed a plan together; further, I felt I was part of the team instead of the medical team against me.”

In 2008, the Cancer Quality Alliance, a loose confederation of cancer care providers, patient advocacy groups, insurers, and other national cancer-related organizations, published “Cancer Quality Alliance: Blueprint for a Better Cancer Care System.”¹ The Blueprint, which was based on the Institute of Medicine definition of quality health care, described five fictitious patients, each cared for in a best-case scenario and a worse-case scenario.^{2,3} The best-case scenarios emphasized the need for multidisciplinary, coordinated, and timely care and were in stark contrast with “sequential treatment decisions made in isolation by specialty” which was provided in the worse-case scenarios. The respective experiences of Gantos-O’Brien and Forbes align closely with these disparate scenarios.

From a quality improvement standpoint, the principal difference between the care provided to Mrs. Forbes and that provided to Ms. Gantos-O’Brien is that the former consisted of a series of loosely bound steps completely lacking in unifying structure, whereas the latter recognized that cancer management involves a series of steps (processes) that are fundamentally linked. For cancer care to be reliable and efficient, it must be viewed as system, simply defined as “an interdependent group of items, people, or processes with a common purpose.”⁴ In that context, multidisciplinary cancer care can be defined as a deliberately designed system that creates a common communication platform among different providers of cancer care, enabling complex decision making and resulting in a tailored individual management plan. It is distinct from a tumor board, which does not require the direct interaction of the patient with the system. At its best, a multidisciplinary program maximizes the interaction of the patient with the system, creates efficiencies that are beneficial both to patient and provider, uses common language, standardizes treatment approaches, and relies on the best available evidence. In terms used by Brent James, a surgical oncol-

ogist and international expert on quality improvement, successful multidisciplinary programs transform care from a craft base to a profession base.⁵ Profession-based care relies on the ability of highly functional teams to create models of care that simply cannot be achieved by individuals acting independently.

Whether the outcomes obtained by Mrs. Forbes and Ms. Gantos-O'Brien will differ is unknown. The body of evidence comparing cancer care delivered in multidisciplinary versus traditional settings is relatively scant.⁶ Purported benefits of multidisciplinary care include the following: more complete collection of, and more accurate evaluation of, patient information; greater standardization and adherence to evidence-based care; enhanced patient experience; less fragmentation of care; high levels of provider satisfaction; and improved cancer outcomes.^{7,8} Yet, most evaluations of multidisciplinary care rely on weak study designs and are subject to confounding factors⁷; none are definitive. In addition, the efficiencies afforded a patient in a multidisciplinary setting often occur in sharp contrast to the inefficiencies experienced by those providing the care. Assembling teams of clinicians to work collaboratively on a case-by-case basis may result in inefficiencies that result in lost productivity. Such economic disincentives are particularly challenging in private practice settings. In addition, a suitable infrastructure to manage complex scheduling and a satisfactory physical space conducive to the unique needs of multidisciplinary care are required. These conditions are far more likely to be available in large academic centers and comprehensive cancer centers than in the community, where most cancer care is provided. Collectively, these factors explain why multidisciplinary care remains out of bounds for many patients with cancer and their providers.

It can be argued that the above position is too simplistic, that an entire spectrum of care exists between best-case and worst-case scenarios, and that not all cancer patients require formal multidisciplinary management. The latter is undoubtedly true. For patients with very early-stage cancer, for example, for whom surgery alone accomplishes cure with a high probability of success, engagement of a multidisciplinary care team would result in only an unnecessary use of precious resources. In addition, it can be argued that the shortcomings in Mrs. Forbes case were not due to a lack of a *system* of care, but rather to a lack of *coordination* of care; any of her caregivers could have assumed the mantle of responsibility to coordinate her care. The counter position, however, is that changes in the practice of medicine in the last decade no longer allow a provider the luxury of time needed to ensure that handoffs are always

accomplished safely and that delays in care are avoided. Donald Berwick, the newly instated Administrator of the Centers for Medicare and Medicaid Services, perhaps said it best 20 years ago:

Heroic thoroughness may make patients a little safer, but the important battles of improvement are not won by heroes who compensate over and over again for flawed processes. They are won by those who vanquish the real enemy: the process flaws themselves. The proper objects of efforts to improve quality are not the people who participate in a flawed process, but the process that make flaws happen in the first place.⁹

In April 2010, planning for an issue devoted to multidisciplinary cancer care, the editors and staff solicited several manuscripts and posted a call for papers on the ASCO Web site homepage. The response was unprecedented; a total of 43 manuscripts was received. The manuscripts described a huge array of innovations to provide patient-centered comprehensive, coordinated cancer care as well as assessments of the benefits to providers and patients. Stumbling blocks, both those that have been overcome and those that remain extant, are described in detail. Because journal print space is limited, the editors and staff were forced to limit the number of manuscripts that could be published. However, given the high quality of many submissions, as well as the potential value to our readers, *JOP* decided to publish an online supplement to the current issue. Included are manuscripts describing highly innovative approaches to creating and evaluating multidisciplinary care programs in both academic and community settings in the United States, Canada, and Australia. We are indebted to all of the authors who submitted manuscripts and are particularly grateful to those authors who agreed to participate in the online supplement. We encourage our readers, especially those interested in implementing multidisciplinary clinics, to explore the varied content.

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