The Design and Implementation Of a Multidisciplinary Prostate Cancer Clinic

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With the advent of the prostate-specific antigen (PSA) era, the majority of prostate cancers are early-stage, clinically localized tumors (Thompson, 2001). Generally, men with early-stage prostate cancer are presented with several treatment options: surgery (radical retropubic prostatectomy or laparoscopic prostatectomy), radiation therapy (external beam radiation therapy and/or brachytherapy), and cryotherapy, or “watchful waiting,” which is characterized as expectant management or active surveillance. However, within the medical community, there appears to be no consensus as to which treatment is optimal (O’Rourke, 2006). Randomized clinical trials comparing the efficacy of treatment options are limited due to difficulty accruing patients who are willing to submit to randomization of their treatment (Berry et al., 2006; O’Rourke, 2006). Although the various treatments utilizing definitive therapy are considered comparable in terms of cancer control rates, their potential to affect a man’s sexual, urinary, and bowel functioning makes the individual treatment decision a major source of stress.

The authors describe how a “traditional” clinical center and research organization was transformed into a multidisciplinary clinic for patients with prostate cancer. How and why the clinic was designed and implemented, as well as benefits to patients, staff, and research initiatives, are detailed.

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traditional” clinic for patients with prostate cancer was changed by an innovative design and implementation process that led to a multi-disciplinary prostate cancer clinic.

**Background**

The Center for Prostate Disease Research (CPDR) was established by Congress in 1991 as a comprehensive research program primarily to study prostate cancer. The CPDR is a large, multi-center Department of Defense program affiliated with the Uniformed Services University of the Health Sciences, Armed Forces Institute of Pathology, and many military (Army, Navy, and Air Force) medical centers. The CPDR element located at Walter Reed Army Medical Center (WRAMC) in Washington, DC, is addressed in this article. It is dedicated to state-of-the-art treatment and clinical research opportunities for men with prostate cancer who are eligible for care in the military health care system.

The CPDR is located on a ward renovated specifically for outpatient clinic visits, and it includes examination rooms and private consultation offices, as well as areas for support staff. The urology clinic, radiation oncology, and medical oncology and pathology departments are also located within the hospital, although not in close proximity to CPDR. The CPDR has access to all services within the hospital, such as the surgical suites and inpatient wards.

The staff of CPDR comprises urologic oncology surgeons, nurse practitioners, clinical research coordinators, and a registered nurse (RN) educator. There are also laboratory, database, administrative, and research regulatory staff. Staff consult with radiation oncologists and medical oncologists, as well as other medical specialists. Urology and radiation oncology medical residents, along with medical oncology fellows, rotate through CPDR. The CPDR maintains a strong patient education program. There are also prostate cancer patient volunteers, active support groups, and an extensive patient library.

In the past, the typical process for newly diagnosed patients with prostate cancer was a chronologically linear and often one-dimensional process managed by urologists. For example, a urologist would biopsy the patient in the urology clinic; if the patient was diagnosed with prostate cancer, the urologist would present the patient and his family with possible treatment options. A referral to consult with a radiation oncologist might occur, but the practice was not uniform. Some patients would immediately decide to have surgery without learning about radiation therapy options. Likewise, referrals to the CPDR to meet with research coordinators regarding possible participation in various research studies or recommendations to meet with the nurse educator for educational counseling and support were not consistently offered to patients.

Patients openly expressed overwhelming anxiety, not only with their cancer diagnosis and the burden of making a treatment decision, but also in dealing with the complexities of the health care system. Some stated they felt “on their own” to maneuver through this daunting process. Patients who did meet with a radiation oncologist often expressed concern and confusion about physicians’ objectivity. Some stated, “Each physician is selling his or her own specialty, somewhat like a used car salesman,” and wondered, “Who is the ‘honest broker’?” Anxiety was often compounded by a sense of urgency to make a decision quickly, fearing delays in treatment might allow their cancer to spread. Also, to some patients, physicians’ recommendations were often conflicting or ambiguous. Many patients relayed a sense of inadequacy to understand the terminology, treatment options, and associated long-term ramifications. Some patients were uncomfortable with the responsibility of choosing a treatment and would prefer that the physician tell them what to do. Difficulties getting immediate appointments further contributed to the anxiety in decision making. Patients from out-of-state, and particularly out-of-country, often experienced additional anxiety managing this process long distance. Others expressed feeling immobilized by the psychological distress of having prostate cancer and having to choose a treatment.

At the same time, CPDR staff also experienced frustration with the fragmentation of the clinical process. For example, not all patients were afforded the opportunity to meet with radiation oncologists or the nurse educator. Additionally, there were missed opportunities to acquaint patients with CPDR research programs and invite study participation. Although surgeons and radiation oncologists convened bi-monthly at the tumor boards and consulted with one another on individual cases, the importance of developing a more systematic and formalized process of interdisciplinary collaboration became clear.

**Theoretical Framework**

For the Change

There was a growing consensus among many of the clinicians in the CPDR, urology clinic, and radiation oncology department that changes in the clinical process for newly diagnosed patients with prostate cancer were necessary to improve both patient care and research opportunities. Specifically, there was recognition that redesigning our existing clinical processes into a uniquely structured clinic incorporating multiple disciplines was needed for newly diagnosed prostate cancer patients. The staff also recognized that making this change would be a challenging, complex, and time-consuming process, which is a major deterrent in any busy clinical practice. Fortunately, there was a successful model for a multidisciplinary breast cancer clinic in the hospital in which the radiation oncologists and psychologists already
participated. Further, a number of other multidisciplinary clinics have been implemented in clinical settings within other organizations (August et al., 1993; Baldagni et al., 2005; Basler, Jenkins, & Swanson, 2005; Falkenberry et al., 2000; Link, 2000; Martino, 2000; Roux & Logan-Young, 2000; Silverstein, 2000; Valicenti et al., 2000).

The potential advantages of this organizational restructuring for patients with prostate cancer were discussed among the clinicians. The director of the CPDR and the chief of the radiation oncology service were both strongly committed to the need for an improved process. They partnered as change agents to lead the CPDR in this major organizational restructuring. Radiation oncologists and the psychologist, already members of the breast cancer multidisciplinary clinic, offered further support. It became apparent that a change was needed in the CPDR. The status quo was no longer acceptable.

While it is clear that successful change includes a qualified change agent who can lead the organization, comprehensive communication and consensus building within the group is paramount (Carrigan, 2001). A management methodology is helpful to provide the framework upon which to build successful change. This change process utilized one of the most noted frameworks, and Lewin’s (n.d.) classic Force-Field Analysis model is reflected in Figure 1.

The first step in Lewin’s (1947) model is to “unfreeze” the status quo. The existing CPDR process, while not optimal, was a known entity: familiar, comfortable, and safe. The staff knew and were comfortable with their roles and relationships within the organization, as well as the formal and informal systems. In this stage, it is not unusual for individuals to resist the change and to retain group conformity (Lewin, 1947). The CPDR leadership staff followed Lewin’s model to “unfreez” the staff using several management techniques. First, staff were motivated in the direction of the upcoming change by emphasizing the potential positive impact on quality of care and research. CPDR leadership also sought the staff’s participation and collaboration in the change, including developing implementation steps and identifying solutions regarding planned and unplanned challenges. The initial “unfreezing” of the status quo was particularly stressful because staff envisioned the amount of time and interdepartmental, as well as intradepartmental, coordination required to implement the change.
Lewin’s (1947) second step of the change process is “movement” (the actual implementation of the change). This step seeks to overcome resistance to the status quo. The CPDR leadership overcame the resistance in this potentially turbulent phase by employing some of Lewin’s management techniques, including conducting multiple group sessions and individual discussions during which staff members were reminded of the major shortcomings of the status quo. Staff were also reminded of the advantages of the new design to the patient, his family, the CPDR staff, and the organization. CPDR leadership also sought the cooperation of informal leaders to support this change process. The movement phase, although not without frustrations, was easier than anticipated because of the consensus that this change, however difficult, would be positive.

Lewin’s (1947) final step is “refreezing,” which takes place after the change has occurred. This step ensures that the “old” ways do not creep back into the organization. CPDR leadership maintained vigilance after the change to ensure that the new processes were functioning optimally. This was reinforced by new formal and informal written policies and procedures. CPDR leadership also conducted group meetings and met with staff individually to discuss the change, identify areas that did not contribute to expected outcomes, and make adjustments as necessary.

Patients and families attending the first several multidisciplinary clinics were questioned, and their feedback was incorporated into the new design. In Lewin’s model (1947), planned change alters the “force field” by implementing a new set of forces that change the equilibrium to the level desired. For the authors, “refreezing” was the easiest step of the change process. The foundation of the change was solid, and modifications were easily made to improve the basic structure. Staff not only adapted readily to the new clinic, but they also found it energizing and professionally stimulating because they were engaged in a more integrated and unified practice. Further contributing to the successful “refreezing” was how exceptionally well the clinic was received by patients and families, which was positive reinforcement for clinic staff.

Design of the New Multidisciplinary Clinic

The vision for the new multidisciplinary prostate cancer clinic is to provide a comprehensive, team-oriented, patient-focused multidisciplinary counseling and consultative service to patients newly diagnosed with prostate cancer. The clinic is convenient, easy, and time efficient for patients; essentially, a “one-stop care” concept. Organizationally, the intent is to ensure that the patient and his family know that there is a designated “go to” person, and that the clinic is the “go to” place for continuity and cohesiveness in care management.

Another important aspect of the design is that no change in physical or human resources occurred. No construction was required of the physical facility. Likewise, neither the number nor the mix of staff changed. What did change, however, was the process.

Under the new design, when the urologist diagnoses a patient with prostate cancer, he or she briefly tells the patient about the multidisciplinary clinic, which is the entrée point for prostate cancer treatment at WRAMC. The urologist informs the RN clinic coordinator about the prospective patient. The RN clinic coordinator subsequently calls the patient to schedule an appointment for the clinic. Of greater importance is the continuation of the process of building a relationship with the patient and providing essential information, as well as assessing the patient’s primary concerns. The RN clinic coordinator provides detailed information about the clinic and gathers pertinent information from the patient and/or medical records. The RN clinic coordinator listens compassionately and astutely to the patient, and provides educational and emotional counseling. This helps allay patients’ and families’ fears and anxieties associated with a cancer diagnosis. This critical step facilitates the patients’ important information-gathering and processing phases.

Patients may also refer themselves to the clinic. For example, patients often hear about the clinic from other patients or through the Internet. The popularity of the clinic among patients has created a noteworthy “word-of-mouth” advertising campaign.

The multidisciplinary clinic is conducted every Monday from 8:00 a.m. to 2:30 p.m. The patients’ spouse, “significant other,” or other family member(s) are encouraged to attend. In most cases, it is “one-stop care.” All appointments are conducted within 1 day, which is convenient, time efficient, and emotionally reassuring for patients and families. However, some patients require additional appointments for further evaluation. The schedule is adjusted as needed for patients with unique health issues or transportation and scheduling problems.

Six newly diagnosed patients with prostate cancer are scheduled weekly (see Figure 2). The clinic begins with the RN clinic coordinator who welcomes patients and their families in an informal group setting, orient them to the clinic, and reviews their schedule and clinical records. Each patient is assigned a private room for the day. A surgeon, radiation oncologist, and psychologist rotate to
the patient’s room for private consultations. Throughout the day, patients are scheduled for three small-group sessions. One session is with the nurse educator who provides information about prostate cancer, including possible treatments as well as educational and community support resources. In another session, a urologist speaks about male sexual health. The third session is with research coordinators who describe the various clinical research opportunities and invite participation in clinical studies. When a patient expresses interest in a study, research coordinators discuss details of the study and review consent forms privately with the patient. Throughout the day, particularly during coffee breaks and lunch, patients and families have the opportunity to socialize with each other and share information. Patients often swap telephone numbers and email addresses to stay in contact after leaving the clinic.

While patients are having lunch, physicians, as well as the psychologist, RN clinic coordinator, and nurse educator, have a team meeting in which each patient is discussed and relevant personal and clinical information are shared. Clinicians discuss and reach consensus on the patient’s optimal treatment option(s), including “watchful waiting.” Patients who are eligible for research protocols are also identified. This collaboration results in a team recommendation that one or possibly two physicians will present to the patient and family at the end of the day in a private session. During this session with the physician(s), patients and family members are free to ask questions or clarify information. If the patient is a candidate for surgery and radiation, the surgeon and radiation oncologist will usually meet with the patient as a team to present treatment recommendations.

Following the session with the physician(s), patients meet briefly with the RN clinic coordinator and nurse educator to ensure the communication loop is closed. These nurses ensure that additional appointments, laboratory tests, or medications have been ordered and administered, and that individual questions are answered. They also help schedule patients for treatment(s) if a decision has been made. Many patients leave the clinic with a date for surgery, a date for radiation simulation planning, or other tests to be scheduled. However, some patients will make their decision over several weeks or months. In these instances, the patient is encouraged to call the RN clinic coordinator or one of the physicians when he makes a decision or has questions. To ensure the feedback loop is maintained with patients who are undecided about a treatment, the RN clinic coordinator calls them 1 month following the clinic and periodically thereafter to determine if a treatment decision has been made.

Small Group Sessions are held in the Conference Room for Welcome, Patient Education, Research Options, Sexual Health, Exit Brief.

Private Consultations are in the assigned room for Surgery, Radiation, Coping, Physician’s Wrap-up.
made and to guide them through the next steps. This information is entered into a database for tracking purposes so patients can be managed effectively.

Each week and prior to the subsequent clinic, the RN clinic coordinator notifies surgeons and radiation oncologists with the number of patients scheduled for the clinic along with relevant patient clinical data. A clinic day with six scheduled patients typically consists of at least one surgeon and two radiation oncologists; often another surgeon and one to two additional radiation oncologists will supplement the medical staffing. Urology and radiation oncology residents partner with the staff physicians as well. Two to three research coordinators are needed, depending on the number of patients interested in participating in a research study. The staff is available on a “stand by” status throughout the day to ensure that patients receive timely and efficient attention.

Success of the Clinic

The newly designed clinic is perceived by stakeholders (such as patients, physicians, other staff) as enhancing quality care. The following anecdotal comments reflect the clinic’s success.

Patients’ perspective. Patients are overwhelmingly positive and readily share their experience with others. Significant percentages are self-referred through word-of-mouth networks. We believe satisfied patients are among the best advocates for the clinic. Patients particularly appreciate the convenience and efficiency of the “one-stop care,” despite the fact it is a long day. Patients express that it is well worth the time to have the opportunity to address the surgeon and radiation oncologist in 1 day and to discuss the team’s recommendation(s).

Bridging the gap between surgery and radiation therapy specialties has been of enormous benefit to patients in their decision making. The noncompetitive team approach has had a dramatic impact, and in turn, strengthens patients’ confidence in providers as well as in suggested treatment(s). Many patients find great comfort and relief in seeing that the specialists are working side-by-side on their behalf and often comment that the clinic is a “built-in second and third medical opinion.” In fact, few patients delay treatment to obtain additional medical opinions.

Patients and families often state that they feel a “sense of community” with CPDR staff. We believe the team’s commitment to provide compassionate care and support, as well as helping men become informed decision makers, contributes to the sense of comfort and confidence expressed by patients and family members.

Surgeons’ perspective. The surgeons recognize that to optimize cancer care for patients, a multidisciplinary approach must be used. This is increasingly relevant in prostate cancer, where a variety of treatments with equivalent oncologic outcomes exist. However, each course of treatment may impact quality of life differently. Providing a clinic where patients can access surgeons, radiation oncologists, sexual health professionals, nurses, psychologists, and research coordinators in a unified setting not only lessens the burden on an independent urology practice, but it also affords patients an opportunity to gather all pertinent information efficiently, and in turn, improve decision making.

Surgeons have also noted that patients’ understanding of the disease and satisfaction with treatment choice has improved markedly since the introduction of the multidisciplinary clinic. This approach has engendered a loyalty by patients toward CPDR, allowing for more effective marketing, followup, and research recruitment. Additionally, the multidisciplinary clinic has been advantageous in terms of time efficiency and productivity for CPDR’s health care providers not assigned to the multidisciplinary clinic. The responsibility to discuss the various treatment modalities to patients newly diagnosed with prostate cancer shifts to the physicians in the multidisciplinary clinic. This shift allows more time for the providers to see other patients with prostate cancer.

Radiation oncologists’ perspective. The radiation oncologists believe that the key to the success of the multidisciplinary prostate cancer clinic is the commitment between the director of the CPDR and the chief of the radiation oncology service. This cooperation ensures that no newly diagnosed prostate cancer patient will be treated at WRAMC without attending the multidisciplinary clinic. This strictly enforced commitment has created an environment where patient education, rather than solely treatment decision, is the goal. Some patients arrive at the clinic having already made a treatment decision. However, the reason to require them to attend the clinic is not to change their decision but to ensure that they are educated on all treatment options. Each patient is given a unified treatment recommendation by the team prior to leaving the clinic. As a result, educated patients are more satisfied with their decisions. Patients are also much less likely to “second guess” treatment decisions (if they develop side effects) because they are knowledgeable about potential side effects prior to undergoing treatment. Since the start of the multidisciplinary clinic, more patients are choosing a radiation therapy treatment option because their...
initial consultation process includes recommendations by radiation oncologists. Although the clinic is offered in a military setting where the number of patients undergoing treatment does not influence physicians’ salaries, it is obvious that this situation could be troublesome to urologists in private practice. An advantage of this model is its popularity. When patients are convinced that education is the physician’s primary goal, it is likely that an increased number of patients will also seek urologic care. Thus, an increased referral base will more than compensate for the increase in the number of patients who may eventually choose treatment with radiation therapy.

**Urologic andrologists’ perspective.** Urologists specializing in male sexual health (andrology) are adjunct providers in the multidisciplinary clinic for patients with prostate cancer. Although patients’ primary focus at the clinic is obtaining information to make a treatment decision that optimizes cancer control, virtually all patients have questions and concerns about sexual function after prostate therapies. The andrologist’s “sexual health” session with patients is educational only. Many patients are pleasantly surprised to learn that there are physicians specifically trained in male sexual function. Added to that, patients are very happy to learn about different modalities available to treat erectile dysfunction.

In our clinic, the opportunity to discuss sexual function changes that may occur with prostate cancer treatments is partially shifted to the urologic andrologist. This shift allows more time for the surgeon and radiation oncologist to discuss details of various cancer treatment modalities. The complex treatment plans for erectile dysfunction are addressed in a separate followup session for individual patients. Recent penile rehabilitation programs for patients following prostate cancer treatments have been developed (Dean & Lue, 2005; Mulhall, Land, Parker, Waters, & Flanigan, 2005; Padma-Nathan, 2005). These programs require very early interventions following surgery or radiation for improved penile health. The multidisciplinary clinic allows for early patient education about these penile rehabilitation programs well before the actual need to start penile therapy. Enrollment in these programs has increased with the initiation of the multidisciplinary clinic.

Urologic andrologists have noted an increase in patient knowledge in sexual health issues after patients complete the multidisciplinary clinic. This increased knowledge has led to increased referrals for both penile rehabilitation programs and erectile dysfunction therapies. Patients, as well as spouses or significant others, report feeling more prepared for possible outcomes of erectile dysfunction and penile alterations. They also express appreciation for the opportunity to discuss sexuality issues openly and honestly with a specialist, as well as gratitude for the support that is available.

**Psychologists’ perspective.** Psychologists provide a valuable service by acknowledging the importance of the psychosocial side of a cancer diagnosis and recognizing the unique way each individual copes with illness. Given the potentially profound impact a cancer diagnosis may have, the psychologist meets privately with patients and their families during the “coping” session to assess their level of psychological distress and determine if further evaluation or counseling are needed. Patients and families commonly experience feelings of anxiety, anger, disbelief, and sadness, as well as fears of death, pain, disability, and changes in bodily functions. Intimacy and sexuality as well as threatened loss of masculinity often surface as major issues.

 Patients, as well as their families, indicate that the session with the psychologist makes them feel cared for and encourages personal reflection and shared communication about the meaning of the diagnosis, long-term ramifications of treatment(s), and potential side effects. Availability of support systems and adequacy of coping strategies are also addressed. Patients express appreciation that they are treated as a “whole” person, and that their psychological health and that of their families matters. Further, insights about patients and families gained by the psychologist offer other team members a more comprehensive, integrated, and holistic view of the patient.

**Research coordinators’ perspective.** Research coordinators experienced an enhanced clinical research program since the inception of the multidisciplinary clinic. This may be attributed to the educational nature of the team conference in which members share research protocols that are available as well as information about new technologies and treatments. Furthermore, we believe patients who are satisfied with their care and get information and emotional needs met may be more likely to participate in research studies, or to “give back” to the organization, for what they received.

**Nurses’ perspective.** One of the major factors contributing to the success of the clinic, as well as patient and family satisfaction, is the strong involvement of the RN clinic coordinator and nurse educator. These nurses establish an important initial relationship with the patient over the telephone or through a clinic drop-in
The diagnosis of prostate cancer is typically a life-changing event for patients and their families. This multidisciplinary clinic provides a supportive, reassuring environment, and it plays a pivotal role in educating and guiding the patient and family through the diagnosis and decision-making phases, as well as the treatment and post-treatment phases of this disease.

For staff, the newly designed multidisciplinary clinic created a more professional environment and caring mindset that fosters a patient-focused approach. Clinic staff are committed to operationalizing the essence of quality cancer care; that patients and their families are informed decision makers in their treatment.

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