Focused on the patient
2007 Annual Report

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Cancer research studies on the campus of Baylor University Medical Center at Dallas are conducted through Baylor Research Institute, Mary Crowley Medical Research Center, Texas Oncology, and US Oncology. Each reviews, approves, and conducts clinical trials independently. Their clinical trials are listed together, in this publication, for the convenience of patients and physicians.

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BAYLOR
Charles A. Sammons
Cancer Center at Dallas
The Baylor Sammons Cancer Center has reached its 31st birthday. We continue to emphasize multidisciplinary personalized care for our patients. During the last decade, overall cancer mortality has declined through better detection methods and improved treatment. Advances in molecular biology, genetics, and immunology have identified new pathways which make targeted therapy to the cancer cell increasingly effective. Oncology has become one of the most exciting fields in medicine, in large part because progress in the basic sciences is being translated to the bedside and clinic at an ever accelerating rate.

The linchpin of Sammons Cancer Center activities continues to be our Multidisciplinary Site-Tumor Conferences. This year we have instituted an Endocrine Site-Tumor Conference to bring the total number of different site conferences to 12. Two hundred forty such conferences are held each year. In 2007 over 800 patients were discussed at these conferences by Surgeons, Medical Oncologists, Radiation Oncologists, Pathologists, and other specialists. The total attendance at the Sammons Site-Tumor Conferences has now passed 6,000 annually. I know of no other center or institution that conducts a similar scope of regular multidisciplinary cancer conferences.

In the following pages you will find much new information about our activities. Research and educational programs continue to expand. Over 200 clinical trials are available for our patients. Advances in prevention, detection and treatment are being refined and promptly translated to patient care. Oncology is an ever changing discipline, principally due to the fact that rapid increase in knowledge is being made in many areas. Targeted therapy for many types of cancer is already being employed and will surely expand in the near future. The consequence will be better outcomes for our patients.

Marvin J. Stone, MD, MACP
Director, Baylor Charles A. Sammons Cancer Center at Dallas
Chief of Oncology, Baylor University Medical Center at Dallas
Focused on you

In every way, Baylor Charles A. Sammons Cancer Center at Dallas is focused on the patient. Everyone—from physician and nurse to administrator and therapist—knows that every moment counts and that care given with compassion helps patients through their cancer journey.

When patients come to Baylor Sammons Cancer Center, they can make appointments quickly and easily through the cancer center Patient Navigation Program (214-820-3535). Their questions are answered. They are treated with full attention and concern. They know who is helping them, what is being done, and how long it will last. Their care is coordinated—within a healing environment.

Such a patient-centered focus is important to you—whether you are the patient, a friend or family member, or a referring physician.

Passing on the TORCH: The Ovarian Cancer Support Group

Jann Aldredge-Clanton, PhD, Baylor oncology chaplain and facilitator for the ovarian cancer support group, explained how the women in her group were inspired:

It is 1:00 p.m. on Tuesday afternoon, January 9, 2007. My phone rings. It's Becky Teter, exclaiming, “I've just had a revelation while I was waiting in the take-out line at Whataburger! I see a torch, and women passing it on to other women! We’re passing the torch through a book of our stories—you know, the women in the ovarian group writing our stories and publishing them in a book. And I see the title: TORCH! That's T-O-R-C-H: Tales of Remarkable Courage and Hope. We will pass the torch of hope to other ovarian cancer patients through telling our stories! What do you think?” My immediate response is, “Yes! What a great idea! I love the metaphor of the torch, and I know the power of stories. Go for it.”
This idea came to fruition, and *TORCH: Tales of Remarkable Courage and Hope* premiered on August 27, 2007. The 25 compelling stories in the book reveal how the women drew from their emotional and spiritual resources to complement the medical treatment they received. The stories emphasize the meaning and hope they have found through their cancer journey. This book comes as a gift of hope and encouragement to other cancer patients, their families, friends, and professional healthcare providers.

*TORCH* is given to women diagnosed with ovarian cancer and is available at Ernie's Appearance Center in the Sammons Cancer Center and also through Amazon.com.

On September 17, not long after the book was released, the Cvetko Patient Education Center hosted a special survivorship celebration. The program featured Joan Sommer, a rehabilitation nurse who is a 13-year ovarian cancer survivor and a frequent speaker for the *Survivors Teaching Students: Saving Women's Lives* program through the Ovarian Cancer National Alliance. Allen Stringer, MD, medical director of the Cvetko Center, hosted the event. A special luncheon followed for the more than 100 attendees.

**New Educational Programs for Patients**

In 2007, the Virginia R. Cvetko Patient Education Center added several new programs to its offerings, which already included seven disease-specific groups and other programs focused on exercise and complementary therapies.

First was the monthly series *Clinical Updates*, a series of presentations covering topics such as deep vein thrombosis, oral health considerations during cancer treatment, and updates on treatment for specific types of cancer. Later, the *Wisdom for Women with Cancer Series* was added.

*Healing Through Art* and *Writing for Wellness* were two other new programs, offered to both cancer patients and their friends and family twice a month. Expressing oneself either through images or words has been shown to be a powerful tool for gaining insight and reducing anxiety. Ongoing series called *Imagine That!* and *Relaxation Made Easy* were also added in 2007.

**Workshop on Complementary Therapies**

The Cvetko Patient Education Center and Baylor’s Healing Environment program presented a workshop on complementary therapies on October 13. Nurses, social workers, other allied health professionals, and the public heard about and experienced complementary therapies during breakout sessions on Tai Chi, Xigong, art, writing, and relaxation. Physical and rehabilitation medicine physician Amy Wilson, MD, gave the keynote address entitled “Complementary Therapies for Healing: Can They Work for You?”
Special Programs on Waldenström’s Macroglobulinemia

On May 19, the Cvetko Patient Education Center and the North Texas Waldenström’s Macroglobulinemia Support Group hosted a special program on Waldenström’s macroglobulinemia, which was open to both patients and health care professionals. This disease is an uncommon B-cell lymphoma with about 1,000 to 1,500 cases diagnosed each year in the United States. Marvin J. Stone, MD, chief of oncology at Baylor University Medical Center at Dallas and director of Baylor Sammons Cancer Center, began by presenting “Diagnosis and Clinical Features of Waldenström’s Macroglobulinemia.” Afterwards, Steven P. Treon, MD, PhD, program director at the Bing Center for Waldenström’s Research at Dana-Farber Cancer Institute, presented “Advances in the Biology and Therapy of Waldenström’s Macroglobulinemia.”

The second Waldenström’s macroglobulinemia program was held on November 17. The program featured Irene Ghobrial, MD, from the Bing Center for Waldenström’s Research, who presented “Novel Agents in Waldenström’s Macroglobulinemia.” Both programs were cosponsored by the Leukemia and Lymphoma Society.

Exercise Programs

Two new exercise programs for cancer patients began in 2007:

• First, a pilot study began to examine the effectiveness of aquatic exercise in reducing lymphedema. Breast cancer patients who developed lymphedema after cancer treatment and had already explored conventional treatments, such as decongestive therapy and lymph drainage massage, were encouraged to participate. Patients in the study attend 12 one-hour aquatic exercise classes two or three times a week at the Baylor Tom Landry Fitness Center.

• Second, Baylor Sammons Cancer Center collaborated with the Cancer Foundation for Life to offer Fit Steps™, which focuses on exercise and conditioning to improve the physical and psychological well-being of patients regardless of their health status. Patients are referred to this program by their physician. They receive a thorough assessment of their current condition and a customized program to help increase their physical functioning.

Celebrating Cancer Survivors and Barrett Lectureship

The Virginia R. Cvetko Patient Education Center and US Oncology together sponsored Baylor’s celebration of the National Cancer Survivors Day from June 5 through 8. Refreshments and information were available in the lobby of the Sammons Cancer Center all week. Tables were manned by Cvetko Center volunteers and staff, as well as representatives from many local cancer support organizations including American Cancer Society, Gilda’s Club North Texas, and the Leukemia and Lymphoma Society. Information was available on survivorship issues, early detection and prevention, and support groups offered in the Dallas area.

In conjunction with the celebration, the Charlotte Johnson Barrett Lectureship was held. At the 2007 event, the speaker was Julie Silver, MD, assistant professor at Harvard Medi-
Focused on you

Dr. Julie Silver, herself a cancer survivor, presented “After Cancer Treatment: Heal Faster, Better, Stronger,” with approximately 200 people in attendance in the Beasley Auditorium. In addition to the noon lecture, Dr. Silver met with oncology staff on the fourth floor of Hoblitzelle Hospital, the sixth floor of Roberts Hospital, and the Blood and Marrow Transplant Unit.

Raising Cancer Awareness: Prevention and Screening

The only circumstance better than catching cancer at an early stage is preventing it altogether. Physicians and staff at Baylor Sammons Cancer Center worked toward both of these goals in 2007.

Smoke-free Policy and Smoking Cessation Activities

One important prevention effort in 2007 was Baylor Health Care System’s policy to make its campuses smoke-free so that all patients, staff, and visitors are not exposed to cigarette smoke. Patients who smoke and are admitted to the Baylor Dallas can receive help from a physician to manage their smoking habit during their stay. Nicotine gum and other products are available in the Roberts Hospital gift shop and the Baylor Plaza Pharmacy for families and visitors.

On November 15, the Baylor Sammons Lung Cancer Center hosted its annual Great American Smokeout program. More than 300 patients, visitors, and employees participated in the event. The theme of “Gone Smoke” provided a fun atmosphere with Marshall Dillon (Dayrel Weisner) and Miss Kitty (Leslie Byrd) there to let tobacco users know that they’re buying a “pack” of trouble.
Focused on You

Educational information and tools provided tips to quit, a description of health benefits once smokers quit, and a computer tool that calculated how much smokers spent on cigarettes and the number of cigarettes they smoked annually. The Martha Foster Lung Care Center also performed spirometry tests, which measured lung volume and diffusion, and distributed information on prescription medications that help people quit smoking.

Community Screening Events

Two free community cancer screening events were held in 2007. The annual melanoma/skin cancer screening event was held in May. Dermatologists on the medical staff at Baylor

Passing on the Torch of Hope

Seven years ago, Kay Knodel switched professions. After more than 25 years with the same company, she left her position as office manager and took on the titles of playmate (to her 6- and 9-year-old grandchildren), co-author of a new book, and tomato gardener.

The impetus for this change: being diagnosed with ovarian cancer on October 31, 2000. As a connoisseur of chemotherapy regimens, an advocate and friend to other women with ovarian cancer, and a statistical anomaly, Kay has the perfect qualifications for her most challenging job—survivor.

On the scariest day of the year, Halloween, Kay learned that she had cancer: not only on her ovaries but on her bladder, colon, diaphragm, and a kidney as well. Her internist referred her to Baylor, where, just 2 days later, she found herself discussing her prognosis with Carolyn Matthews, MD, gynecologic oncologist on the medical staff. It was explained to her that statistically, a patient in her stage of ovarian cancer typically has just a few years to live.

Kay underwent surgery a day later, in which surgeons removed all visible cancer growths and left the microscopic and inoperable cells for chemotherapy. A weeklong stay in the hospital was followed 2 weeks later by Kay’s first round of chemotherapy.

While her doctors helped her physically, Baylor chaplain Jann Aldredge-Clanton helped her spiritually. Jann directed Kay to the ovarian cancer support group, offered through the Cvetko Patient Education Center at Baylor Sammons Cancer Center, where Kay found a network of support. Throughout her 7 years of on-again, off-again chemo treatments, remissions, and relapses, Kay has been an active member of the group, volunteering to drive other patients to appointments and reciprocating the knowing care that others had given her.

“For being my worst-case scenario, it has also been my best-case scenario,” Kay said of the past 7 years, counting herself fortunate to be at Baylor Sammons Cancer Center. She noted that the friendliness and warmth of the people at Baylor never wavered; it’s comforting to be around such a personable staff. “I don’t know how they do it.”

Presently, Kay is promoting TORCH: Tales of Remarkable Courage and Hope, which profiles 25 women of diverse backgrounds, ethnicities, and ages who have battled ovarian cancer. Kay is one of the group who wrote stories for TORCH.
University Medical Center, as well as nurses and other volunteers, screened 293 people, and made presumptive diagnoses of one case of possible melanoma, 15 cases of basal cell carcinoma, and 10 cases of squamous cell carcinoma. Individuals with these findings were referred to dermatologists at Baylor Dallas for more thorough testing and follow-up.

In September, Baylor Sammons Cancer Center and Baylor University Medical Center sponsored free prostate cancer screenings for men aged 50 and older. Of the 279 men screened, 21, or 7.5%, were found to have abnormal prostate-specific antigen levels and were referred for further testing with a urologist.

**Breast Cancer Education and Genetic Counseling Efforts**

The W. H. and Peggy Smith Baylor Sammons Breast Center at Dallas has continued to offer *Breast Care for a Lifetime®,* an educational program teaching breast self-examination and breast health. TXU, the Black American Cancer Network, and DaVita Dialysis employees were a few community groups that requested the program in 2007. More than 350 women were in attendance at this informative presentation.

The Baylor Sammons Breast Center also collaborated with the Mary Kay Ash Charitable Foundation at Mary Kay’s national convention to provide breast health, breast cancer, and cervical cancer education to more than 1,500 consultants. Baylor also conducted numerous health fairs throughout the community.

In 2007, Baylor’s Hereditary Cancer Risk Program assessed 243 individuals and consulted with them and their families about the genetic risk of breast and ovarian cancer. The services included genetic testing, development of personal plans for monitoring, and review of prevention options.

**Breast Cancer Awareness: Pink Passion**

To increase breast cancer awareness, Baylor Charles A. Sammons Cancer Center and Saks Fifth Avenue Galleria Dallas presented the Pink Passion Shoe Design and Decorating Contest. Employees of Baylor and Saks, as well as the public, were invited to participate by showing their passion for fashion and battling breast cancer. Ninety-one shoes were submitted in three categories. A decoration day was hosted at Saks on Saturday, October 20, 2007.

The three awards were presented on November 7, 2007:
- Most creative: Matias Gonzalez, Grand Prairie, Texas, fashion student at El Centro College; winner of a shoe shopping spree at Saks Fifth Avenue valued at $750
- Most fashion forward: Leigh Ann Freeman, Fort Worth, Texas, department manager at Saks Fifth Avenue; winner of a shoe shopping spree at Saks Fifth Avenue valued at $750
• Most creative for kids 12 and under: Kate Langley, Dallas, Texas (a Baylor baby—born at Baylor Dallas 6 years ago); winner of gift certificates to American Girl and Galleria Dallas, as well as a candy gift basket

Myeloma Awareness
A more unusual awareness event was the arrival of Tuohy family’s “Myeloma Mobile,” a 37-foot Winnebago. Michael Tuohy, a survivor of multiple myeloma, and his family spent the summer of 2007 traveling across the country to share their knowledge with other patients who may be searching for help and hope. The mobile rolled onto the Baylor University Medical Center at Dallas campus on July 27. Michael Tuohy addressed an audience gathered to hear him, and Brian Berryman, MD, an oncologist on the medical staff, spoke on advancements in therapies. Patients and their families also had a chance to autograph the Myeloma Mobile.

Volunteers: Reflections of Compassion
True healing is the result of harmony of mind, body, emotion, and spirit. Volunteers for the Cvetko Patient Education Center embrace this belief and willingly give their time and energy with selfless dedication. Their devotion to volunteerism brings realization of a higher purpose that transcends “going through the motions.” These men and women truly care.

Residing deep within them are the memories of being on the other side: experiencing firsthand the cancer diagnoses, surgeries, treatments, and recovery. They each have a unique story to tell, one that gives comfort to those who are traversing the rocky road of cancer. During a visit they listen, they laugh, and they cry. They provide words of encouragement and hope.

“In pain, patients don’t always give a belly laugh,” said Bubbles, of the Cvetko Volunteer Clown Corps. “Sometimes there is the whisper of a smile that brushes the corners of their lips, and we walk away satisfied we have done our job well.” The Clown Corps is only one of the many ways volunteers help patients and families at Baylor Sammons Cancer Center.

Another volunteer program is Cancer Survivors Network, where cancer survivors visit patients one-on-one either in the hospital or in the outpatient clinic. Lynne Lofgren began her cancer journey more than 20 years ago when she was diagnosed with breast cancer. With the help of her surgeon, Zelig Lieberman, MD, and the love and support of her husband, Lynne was able to travel a rough path, but not without stumbling. It was the stumbling that became the driving force behind her desire to volunteer and that led her to the Cancer Survivors Network program. “The emotional recovery was the hardest part,” Lynne said, “so helping others with their emotional recovery is what I wanted to do.”

Office volunteers make a difference by assisting the center staff. Jane Lewis has been a mainstay in the office for several years. “The variety in work and people is something I enjoy, and it helps keep me mentally and physically fit,” Jane confided.
Blood and Marrow Transplant
by Edward Agura, M.D.

2007 marked the 25th anniversary of the Blood and Marrow Transplant program and the celebration of its 3,500th transplant. As a result of ongoing growth, Baylor has become the eleventh largest transplant center in the United States.

Through research, we are discovering better ways to reduce transplant-related complications and match patients with their donors. Our unrelated donor center has surpassed its minority recruitment targets consistently, year after year. Patients who come to Baylor have more than an 80% chance of finding suitable donors.

Research remains a prominent focus of the program. Our program has more than 20 Institutional Review Board-approved research protocols for patients with leukemia, lymphoma, myelodysplastic syndrome, multiple myeloma, and aplastic anemia. We are participating in the National Institutes of Health Clinical Trials Network, a national consortium of major transplant centers tackling, for the first time, difficult questions in a collaborative manner. Furthermore, we have active studies in such areas as non-myeloablative (reduced-intensity) transplants, cancer vaccines, radiopharmaceuticals, treatment of graft-versus-host disease, induction of immune intolerance, supportive care, and novel anti-infectives.

Finally, the program has developed an expertise in the treatment of older individuals. Our protocols are designed specifically for patients through age 75, and candidates formerly deemed too frail for conventional transplants may now be considered for non-ablative transplant protocols in non-Hodgkin’s lymphoma, acute myelogenous leukemia, myelodysplastic syndrome, and multiple myeloma.

National Marrow Donor Program
Approximately 70% of patients searching for a marrow or blood stem cell transplant will not find a suitable match within their family and must look to an unrelated donor to provide the life-saving cells they require. Baylor Charles A. Sammons Cancer Center at Dallas, in cooperation with the National Marrow Donor Program (NMDP), offers all four of the components of the donation process: a transplant center, a donor center, a bone marrow collec-
tion center, and an apheresis collection center. Baylor Dallas is one of only eight programs nationwide to offer all four of these components.

Each year, on the anniversary of their initial accreditation membership, all NMDP network centers are reviewed to ensure their continued compliance with membership standards. The transplant center is reviewed based upon criteria adopted by the NMDP to ensure that hematopoietic stem cells from unrelated donors will be transplanted at institutions experienced in allogeneic stem cell transplantation. Donor centers are held to guidelines established to ensure that unrelated marrow donors are medically eligible and informed about the hematopoietic stem cell donation process and to safeguard the donor’s health and confidentiality. Apheresis and bone marrow collection centers must continuously meet standards that promote donor safety and product quality to include collection, testing, labeling, and transportation of the product. In 2007, our program was again accredited in all four areas; the program has been continuously accredited since 1984.

**Graft-Versus-Host Disease Clinic**

The Graft-Versus-Host Disease (GVHD) Clinic at Baylor Sammons Cancer Center helps patients with serious physical complications and psychosocial issues resulting from GVHD. This multidisciplinary clinic is held monthly in the outpatient Bone Marrow Transplant Clinic. Chronic GVHD usually develops at least 3 months after transplant and consists of a reaction between the immunological cells (those transplanted from the donor) and recipient cells (those from the individual receiving the transplant). The reaction is most commonly seen in the liver, gastrointestinal tract, and skin. Many patients experience significant disabling and disfiguring physical changes from chronic GVHD, which can lead to loss of function, poor body image, and lack of self-esteem.

To assess these patients’ complex needs and help them develop a higher level of function, a variety of professionals are involved, including social workers, physical therapists, occupational therapists, and dietitians. The clinic staff is highly specialized and has considerable clinical expertise in treating patients with GVHD. The clinic staff, including Estil Vance, MD, medical oncologist and Jennifer Cather, MD, dermatologist, both on the medical staff at Baylor Dallas, is highly specialized and has considerable clinical expertise in treating patients with GVHD.

**Update on the Apheresis Unit: Novel Research**

*by Luis Piñeiro, MD*

The apheresis unit at Baylor Sammons Cancer Center continues to play an important supporting role to the Blood and Marrow Transplant Program. It collected approximately 500 stem cell products in 2007. These products were utilized for autologous and allogeneic transplants. Thirteen of these products were collected from donors of the National Marrow Donor Program, for which Baylor serves as a collection center. In addition, the unit performed nearly 600 extracorporeal photopheresis procedures for the treatment of graft-versus-host disease (GVHD).
The apheresis unit also performs procedures for patients at Baylor University Medical Center. These consisted of plasma exchanges, leukopheresis, platelet-pheresis, and red cell exchanges. These procedures are considered essential treatment for a variety of disorders in different fields of medicine: neurology, nephrology, hematology, and rheumatology, in addition to solid organ transplantation.

Collaboration in research studies continues to be a priority for the apheresis unit as well as the marrow processing laboratories. Stem cells have been collected for the study of dendritic cells in normal volunteers, as well as for research studies of dendritic cells for the

Amanda Swink

Amanda Swink has cause for celebration: she recently reached the 1-year anniversary of a new, life-saving procedure. In 2006, 23-year-old Amanda became the recipient of the first successful cord blood transplant at Baylor University Medical Center at Dallas. From birth, Amanda had a rare disorder called severe cyclic neutropenia, which later degenerated into leukemia. Luckily, 6 years earlier a mother of a newborn boy voluntarily donated her son’s cord blood to a volunteer cord blood bank. This made the cord blood available to any person who might need it to treat cancer. Registry search experts at Baylor Dallas identified the cord from this infant as a potential perfect match for Amanda.

Amanda was hospitalized and prepared for transplantation with chemotherapy and radiation. The cord blood unit was flown by courier to Baylor Dallas where Amanda received it as a transfusion. A year later, Amanda’s leukemia remains in remission, and she is enjoying a happy, productive and normal life.

Stories such as Amanda Swink’s give us hope that the future of leukemia and cancers of the blood will soon be treated with simple and easy-to-tolerate treatments. Innovation and research remain the cornerstones in the field or transplantation. Improvements in survival and outcome are made daily. In fact, statistically the survival of patients undergoing transplantation has improved nationally, year by year, over the past decade. Such improvement gives hope that patients may continue to enjoy a quality of life that is superior to that of a patient undergoing cancer treatment.

It is toward this end that the research team and program continue to fund developed research activities and present their data at national meetings. We continue to strive for excellence in clinical and compassionate care.
treatment of malignant melanoma and for patients with HIV infections. The unit is involved in studies exploring novel uses of adult stem cells for tissue repair. Patients undergoing open heart surgery for ischemic heart disease may participate in a study injecting their own stem cells into the heart, anticipating that cardiac muscle will be regenerated. The unit is utilizing mesenchymal stem cells processed at the marrow processing laboratory with the goal of improving the outcome of patients suffering from severe GVHD, inflammatory bowel disease, and degenerative retinal conditions.

Breast Cancer

by John E. Pippen, Jr., MD, FACP

In the United States in 2007, the American Cancer Society estimated that more than 180,000 new cases of breast cancer would be diagnosed. Fortunately, most cases are diagnosed at an early stage, and cure is possible. The number of cases has been dropping for the last few years. Still, it was estimated that more than 40,000 women would lose their lives to this disease in 2007. Opportunities for improvement are still evident. Not everyone gets a screening mammogram.

Most cases of breast cancer are infiltrating ductal cancer. At least five different subtypes of breast cancer can be identified using special techniques. This information becomes more practical as new treatments become available. Patients are taking advantage of advances in surgical techniques, such as breast-conserving surgery and sentinel node biopsy. As a result, the same number of patients are cured, but with fewer problems with lymphedema. Chemotherapy has also evolved over the years to further stack the odds in favor of cure. Many advances on this front have taken place since the 1980s, when CMF (cyclophosphamide, methotrexate, and 5-fluorouracil) was the typical chemotherapy used. In 2007, chemotherapy regimens are easier for patients to finish because of advances in supporting medicines. These medicines prevent problems such as nausea and anemia, resulting in fewer lost days from work. Modern radiation techniques make it possible for patients to finish their treatments with a very low likelihood of complications.

Baylor Sammons Cancer Center continues to strive for the highest level of breast cancer care and provide leadership in the field of breast cancer. More cancers are detected early, more treatments are successful, more innovations are introduced, and more patients are cured. Whether women need advice on prevention, diagnosis, or treatment, they can turn to Baylor Sammons Cancer Center.

New Women’s Imaging Center

The fall of 2007 marked the opening of the Baylor University Medical Center at Dallas Darlene G. Cass Women’s Imaging Center, located in the Baylor Medical Pavilion, a new office building on the corner of Washington Avenue and Junius Street. This spacious, advanced, and spa-like facility houses advanced technologies.
Procedures are reviewed and interpreted by board-certified radiologists on the medical staff at Baylor Dallas who specialize in breast imaging. Services include digital mammography, breast ultrasound, stereotactic biopsy, ultrasound-guided biopsy, lesion localization procedures, ductograms, cyst aspirations, and magnetic resonance imaging with biopsy capability. The center offers private consultation rooms for patient meetings with physicians, as well as a resource center on breast health with educational materials and Internet access and a prayer/meditation room for quiet reflection.

**Innovations and Research**

The physicians in the surgical oncology department continue to provide innovations and expertise in breast surgery. The medical oncology physicians provide leadership in the fight against breast cancer, as evidenced by the many active research protocols. A current research trial for early stage breast cancer is attracting the attention of breast cancer research groups around the country. This trial is investigating whether or not the older cancer drug doxorubicin (Adriamycin) is still a necessary part of chemotherapy.

Past prevention studies have also made a difference in breast cancer care. The STAR clinical trial (Study of Tamoxifen And Raloxifene) was instrumental in the 2007 Food and Drug Administration approval of raloxifene as a risk reduction drug for breast cancer. Baylor ranked seventh in accrual among participating institutions in the United States and Canada.

In 2007, physicians affiliated with Baylor Sammons Cancer Center co-authored multiple publications in major peer-reviewed journals. One such publication was the TEAM trial, which investigated the aromatase inhibitor, exemestane, compared with the long-time gold standard hormonal treatment for breast cancer, tamoxifen.* Another publication in the prestigious medical journal *Lancet* reported results of a research trial on gene expression analysis methods to determine estrogen receptor and HER2 status.** Other research trials conducted at the Baylor Sammons Cancer Center continue to enroll patients. Each day, the oncology team strives for the best combinations of chemotherapy, supportive care, and cancer-fighting drugs.

**Education and Teamwork**

Medical oncologists at Baylor Sammons Cancer Center serve as teachers in the medical oncology fellowship program. The integrated efforts of the pathology, surgery, medical oncology, and radiation oncology departments are on display not only in the lively site tumor case discussions but also in daily rounds, where a spirit of camaraderie is evident. With this spirit, research, and teamwork, Baylor Sammons Cancer Center is poised to take advantage of opportunities in the fight against breast cancer.

Breast and Ovarian Cancer: Patient Responses to Genetic Testing

By Becky Althaus, PhD

For many years, the Baylor Sammons Cancer Center has offered a Hereditary Cancer Risk Program for individuals concerned about developing breast or ovarian cancer. Factors such as family history, personal history, age, and reproductive history tell part of the story. Laboratory analysis of the BRCA1 and BRCA2 genes that contribute to breast and other types of cancer add to the resources used by professionals to develop risk assessments. Women with one of the following characteristics may benefit from genetic testing:

- A diagnosis of breast cancer at or before age 50, or a family history of breast cancer before age 50
- A personal or family history of ovarian cancer (at any age)
- A personal or family history of male breast cancer
- A personal or family history of bilateral breast cancer
- An Ashkenazi Jewish background with a personal or family history of breast or ovarian cancer

Despite the availability of this genetic information, however, it can be difficult for women to decide to seek it—or, if they do get tested, to know what to do with the information. Thus, the physicians and genetic counselors at Baylor Sammons have always provided psychosocial support and counseling at every step.

Becky Althaus, PhD, Zehra Kapadia, MD, Gabrielle Ethington, Giovanna Saracino, MS, and Joanne L. Blum, MD, PhD, presented their findings to the San Antonio Breast Cancer Symposium on how women who tested positive for the BRCA1 or BRCA2 genes used that information to prevent cancer and how they notified their at-risk relatives.

They sent a 27-item questionnaire to 100 women who had tested positive for one of these genetic mutations and 200 women who had tested negative. Of those, 88 (88%) and 124 (62%), respectively, responded.

The results are summarized in Figure 1. The women who tested positive for the gene mutation were significantly more likely to choose surgery as a way to prevent cancer.
In the mastectomy category, the figure shows results for women who tested negative for the BRCA1 or BRCA2 mutation who did not have breast cancer. Not surprisingly, 14% of those with breast cancer in this category had treatment-related mastectomies.

Chemoprevention options included taking tamoxifen or raloxifene. Although more women who tested positive chose chemoprevention, the difference was not significant. Lifestyle changes included increasing exercise (adopted by 29% of those who tested positive and 27% of those who tested negative), decreasing alcohol intake (8% and 13%, respectively), stopping smoking (3% and 3%, respectively), and stopping hormone replacement therapy (6% and 4%, respectively).

All patients in both groups informed family members. Of those who tested negative, a surprising 11% had other family members tested.

This study provided evidence that a diagnosis of a deleterious BRCA mutation affects medical management of individuals coping with the diagnosis or a family history of breast and/or ovarian cancer.

**Cutaneous T-Cell Lymphoma Clinic**

*by Estil Vance, MD*

Baylor Sammons Cancer Center’s Cutaneous T-Cell Lymphoma (CTCL) Clinic, which opened in 2002, has now seen approximately 300 new CTCL patients—making it one of the largest devoted CTCL clinics in the country. The clinic is staffed by both a dermatologist, Jennifer Cather, MD, and a medical oncologist, Estil Vance, MD, on the medical staff at Baylor Dallas.

CTCL is a unique type of lymphoma that involves the skin. As the name suggests, these tumors derive from the T-cell component of the immune system. The most common subtype is called mycosis fungoides, which derives its name from the small tumors’ resemblance to mushrooms. CTCL usually lasts years to decades. Initially, the lymphoma appears as red, scaly patches, which can mimic eczema or psoriasis, although it may range in appearance from a sunburn-like rash to a disfiguring tumor of the skin. Itching, burning, and dry/scaly skin are commonly associated with this lymphoma. Signs and symptoms may precede the diagnosis of CTCL for years, and numerous skin biopsies may be needed to establish the diagnosis. The symptoms often significantly affect the quality of life of the patient. Patients require careful laboratory surveillance and medical follow-up.

**Prostate Cancer: Robotic Surgery**

*Excerpts from InTouch magazine Winter 2008 by Dawn Hunck*

In 2007, Baylor University Medical Center began offering men the option of robotic-assisted prostatectomy with the da Vinci® Surgical System. “The goal is to achieve the same results in treating the cancer, but with a lower risk of complications,” said Matthew Shuford, MD, a urologist on the medical staff at Baylor Dallas.
Larry Crumlish

Receiving a cancer diagnosis is never easy. Larry Crumlish should know: he went through it twice.

This 68-year-old man from Dallas has a loving, supportive, and tight-knit family. Until February 2007, he was feeling good about having battled and beaten bladder cancer.

“I have three brothers who have survived prostate cancer, so I’m aware of how important it is for me to be screened regularly for the disease,” Larry said. It was during a routine follow-up exam for the bladder cancer that his doctor, Joshua Fine, MD, a urologist on the medical staff at Baylor University Medical Center at Dallas, discovered that his prostate-specific antigen (PSA) level had spiked.

Dr. Fine performed a biopsy of Larry’s prostate and confirmed that he had prostate cancer. “Because the cancer was so aggressive, I wanted to act fast, but I was determined to be cautious in my decision-making,” he said.

Larry did a lot of research about cancer, physicians, and medical facilities during his first battle with cancer. “The Internet is a great tool,” he said. “I learned so much and I met so many people who became my extended family. I’ve discovered that prayer, a positive attitude, and loving support all add up to increased odds. That extended family was there for me again after my prostate cancer diagnosis.”

Mr. Crumlish looked to Dr. Fine, the surgeon he had grown to trust and respect during his battle with bladder cancer, to guide him. “Dr. Fine suggested having robotic-assisted surgery to remove my prostate,” he explained.

Using the robotic system to remove the prostate allows the patient a shorter hospital stay, faster recovery, less blood loss during the operation, and less chance of infection. “I knew from my research,” said Larry, “that the odds of success were very high with this procedure and the risk of nerves being damaged was minimal.”

After a short hospital stay, patients are typically back to their normal routines in 1 to 2 weeks. Once they are home, walking at least one mile a day is prescribed, something that got easier each day for Larry. Patients are encouraged to get up and move the same day as their surgery. “A lot of people go through pain with surgery,” he explained. “I’d say for me, it was a little inconvenient and uncomfortable. It was an incredibly easy surgery and recovery.”

Larry stressed the importance of a support group for dealing with cancer. “It’s always good to have a sense of humor just to help get through the tough times,” he chuckled. “In addition to support from my wife, daughter, and family, I received encouragement and well wishes from the Baylor Dallas medical team and so many people I met along my journey. I’m truly blessed.”
The urologist works through several half-inch incisions, or ports, that accommodate a camera and robotic instruments. The camera magnifies the field of view about 10 times and provides a three-dimensional image. Sitting at a nearby console, the urologist controls the robot’s “wrist,” which holds the instruments and mimics movements of the human hand. “The magnification and dexterity of the robot allow for better control, more precise tissue removal, and less trauma to the surrounding nerves and tissues,” Dr. Shuford said. Sparing the nerves and tissues is critical, because damage may be linked to the erectile dysfunction that can accompany traditional prostate surgery.

Palliative Care: A Key Component of Care and Treatment

by Maureen Porter

The American Hospital Association recently named Baylor Dallas a 2007 Circle of Life Citation of Honor recipient for innovation and excellence in palliative care. The Circle of Life program recognizes only a few palliative care programs a year and it is most impressive that the Baylor team, led by Robert Fine, MD, has received such a prestigious citation.

Palliative care focuses on relief of complex physical, psychological, social or spiritual problems related to life-limiting, terminal, or irreversible illness. Unlike hospice care, palliative care services may be provided simultaneously with all other medical treatment, including life-sustaining treatments, or may serve as a transition to hospice.

The Baylor Dallas Palliative Care Consultation Services (PCCS) team works with the primary treatment team to support the patients and their families to improve physical, psychosocial, and spiritual issues associated with advanced illness. The interdisciplinary team includes physicians, nurses, social workers, occupational therapists, speech therapists, nutritionists, chaplains, pharmacology consultants and complimentary therapists. The team provides expertise in symptom management; emotional, psychological and spiritual support for the patient, family, and staff; advance care planning; and assistance in coordination of care with home care, extended care facilities, or hospice care. Palliative care also may include occupational therapy, speech therapy for swallowing or other issues, nutritional assistance, and relaxation techniques and complimentary therapies.

Laurie De Lalio, RN, clinical nurse specialist for palliative care explains, “Caring for patients involves so much more than just medicine, and our Palliative Care Team can help connect patients and families with the support they need to cope and make care plans and decisions.”
Every day, physicians and staff seek quality; they strive for excellence. But it has always proven useful to take a step back, review data, and see what else may be done. This section describes the efforts of Baylor Sammons Cancer Center’s cancer registry in 2007. It also provides cancer registry statistics for the year 2006 and a patient care evaluation study for endometrial cancer.

**Cancer Registry**  
*by Laura Siciliano, RN, OCN*

In July 2007, the cancer registry reporting relationship was moved from Health Information Management to the Baylor Sammons Cancer Center. This realignment supported additional staffing allowing for a dedicated manager and supervisor giving depth and experience to the department. Goals and initiatives were refocused on accurate abstracting, efficient case finding, and timely follow-up.

Continued education being the key factor in our ability to meet our goals, the cancer registry staff began participating in the ongoing hospital registry webinar educational series conducted by the North American Association of Central Cancer Registries. Focusing on quality and continued education, the Baylor Sammons Cancer Center hosted “The Value of Quality Data: Focus on Breast Cancer” seminar on November 30, 2007 with an attendance of approximately 50 cancer registry staff from across Texas.

A cancer registry task force determined after extensive research and data system comparisons, that it would be beneficial to convert our cancer registry data to Electronic Registry System (ERS). The conversion to ERS in July of 2007 has increased registry efficiency through an automated case finding process via the disease index, flexible reporting and follow-up programs.

**Summary of 2006 Cancer Registry Data**  
*by R. Pickett Scruggs, MD*

During reporting year 2006, the cancer registry at Baylor Dallas abstracted 3,146 analytical cases (in which patient were first diagnosed or initially treated at Baylor Dallas). Texas Oncology, PA, housed at the Baylor Sammons Cancer Center, saw an estimated 4,000 additional new cases as outpatients. Therefore the combined total of new cancer cases was more than 7,000. Baylor’s numbers represent an increase of 201 cases (7%) from the previous reporting year of 2005.
The top five sites of diagnosis were similar to those in 2005. These included breast (597), lung (301), colorectal (238), prostate (190), and kidney (155). In addition, 154 cases of liver/biliary cancer were abstracted. Comparing 2006 data with 2005 data showed that breast, lung, and liver/biliary cases remained very similar in number. Colorectal cases increased by 20 cases (12%) and prostate by 21 cases (9%). In addition, the number of lymphoma cases abstracted increased by 60%, the majority being non-Hodgkin's lymphoma. Figures 1 and 2 show the distribution of Baylor cases by gender and race.

Baylor Dallas is in Texas Health Service Region 3, which has 117 reporting facilities in 19 counties. Comparing Baylor Dallas’ 2006 registry data with Region 3’s expected new cases for 2006 revealed that Baylor Dallas saw 15% of all breast cancer cases, 10% of colorectal cases, 10% of lung cases, and 6% of prostate cases in the region.

Table 1 (page 23) compares Baylor Dallas data with that of the National Cancer Data Base. The distribution of cases at Baylor Dallas is similar to national statistics, with the exception of the prostate, bladder, and colorectal sites, which made up a smaller percentage of overall Baylor cases, and the breast, liver, and brain/central nervous sites, which made up a greater percentage of cases. Table 2 (page 24) provides additional details on the stages of cancer seen at Baylor Dallas.
Table 1  2006 Comparison of newly diagnosed analytical cases to estimated national new cases

<table>
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<tr>
<th>Primary site</th>
<th>Baylor reported cases</th>
<th>National expected cases*</th>
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</thead>
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<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Head and neck</td>
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<tr>
<td>Tongue</td>
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<td>9</td>
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<tr>
<td>Lip/oral cavity</td>
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<td>9</td>
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<td>3</td>
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<tr>
<td>Other</td>
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<tr>
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</tr>
<tr>
<td>Total</td>
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*All other* includes unknown primary and hematopoietic diseases not included in the leukemia/lymphoma/myeloma category. *Based upon estimated number of new cases as published by the American Cancer Society.
Table 2  Staging of 2006 analytical cases from the Baylor Dallas Cancer Registry

<table>
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<tr>
<th>Primary site</th>
<th>Non-analytical</th>
<th>Total analytical</th>
<th>General stage of analytical cases</th>
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<td>Total analytical</td>
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<tr>
<td>Lip/oral cavity</td>
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<td>20</td>
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</tr>
<tr>
<td>Pharynx</td>
<td>4</td>
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<tr>
<td>Other</td>
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<tr>
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<td>Pancreas</td>
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<td>Bone and joints</td>
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<tr>
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<td>Eyes</td>
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<tr>
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<tr>
<td>Non-Hodgkin's</td>
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<td>Multiple myeloma</td>
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</tr>
<tr>
<td>All other</td>
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</tr>
<tr>
<td>Total</td>
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<td>3,146</td>
<td>185</td>
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Analytical cases are cases in which patients were first diagnosed or initially treated at Baylor.
Patient Care Evaluation Study:
Surgical Staging for Low-Risk Endometrial Cancer
by Kamilia Smith, MD, and E. Colin Koon, MD, PhD

Endometrial cancer is the most common gynecologic malignancy in the United States. An estimated 39,000 cases of uterine cancer were diagnosed in 2007. In 75% of cases, the disease is confined to the uterus.1

Historically, endometrial cancer was staged clinically. In 1988, the International Federation of Gynecologists and Obstetricians recommended a change from clinical to surgical staging, including lymph node sampling. Today, surgical staging remains the cornerstone of treatment; however, the extent of the lymphadenectomy has not been clearly defined. In surgical staging series, the risk of pelvic nodal metastases in what would otherwise be surgical stage I disease is <10%. For patients with grade 1 or grade 2 tumors with limited myometrial invasion, the incidence of nodal metastasis is <5%.2

Since 2000, prospective randomized trials by the Postoperative Radiation Therapy for Endometrial Carcinoma study group3,4 and the Gynecologic Oncology Group5 evaluated the role of radiation as adjuvant therapy in stage I disease. Results of these studies suggested that patients with low-risk disease, defined as endometrioid histology grade 1 and grade 2 with <50% myometrial invasion, did not require lymphadenectomy or adjuvant therapy—although that issue was not a primary endpoint of the studies. Furthermore, these two studies observed an increased morbidity, without a survival benefit, in women who underwent complete lymphadenectomy followed by radiation therapy. Lymphadenectomies have been shown to be associated with increased operative time and increased complications including blood transfusions, infections, deep vein thrombosis, pulmonary emboli, bowel injury/obstructions, urinary injury/obstructions, lymphocysts, and leg edema in approximately 20% of patients.6–10

In 2006, the National Comprehensive Cancer Network (NCCN) issued a consensus statement recommending that all women with endometrial cancer undergo surgical staging, including a complete pelvic and lower para-aortic lymphadenectomy. This recommendation is based on the assumption that intraoperative assessment of grade and depth of myometrial invasion may have poor correlation to final pathology and that complete surgical staging may result in a therapeutic benefit.11

At the Baylor Charles A. Sammons Cancer Center, preoperative grade and intraoperative assessment via frozen section analysis have been used to guide the surgeons in determining which patients need a complete lymphadenectomy. In light of the NCCN’s 2006 staging recommendations, we analyzed the accuracy of our intraoperative assessments in patients identified as having low-risk disease. Therefore, the primary objective of this study was to correlate the intraoperative assessment via microscopic analysis of frozen sections with final pathology in women with low-risk endometrial cancer undergoing surgical evaluation. The
secondary objective was to evaluate the survival impact of complete surgical staging in these patients.

Methods
This institutional review board–approved study consisted of a retrospective review of all cases of endometrial cancer identified in the Baylor Sammons Cancer Center registry from 2000 to 2003. For the purpose of this study, we defined low-risk disease as grade 1 and 2 endometrioid histology with <50% myometrial invasion and no endocervical involvement. Women with synchronous primary tumors, neoadjuvant chemotherapy or radiation therapy, and/or hysterectomy performed prior to care at the Baylor Sammons Cancer Center were excluded, as were those who did not have intraoperative frozen section assessments and those whose assessments indicated high-risk disease. Of the 386 patients with endometrial cancer identified in the specified time frame, 51 met the criteria, i.e., they had presumed low-risk disease based on the intraoperative frozen section assessment.

The charts of the 51 women were evaluated to compare the intraoperative assessment with pathological tumor grade and depth of myometrial invasion, using Spearman’s rank correlation coefficient as a statistical test. Other data, such as surgical treatment, adjuvant treatment, follow-up care, and outcomes, were also reviewed, with survival outcomes analyzed through Kaplan-Meier curves and log-rank analyses. Survival rates were also compared with data from the National Cancer Data Base.

Results
Comparison between the intraoperative frozen section assessments and the final grade of the tumors is shown in Figure 1. Of the 19 cases considered grade 1 by intraoperative assessment, 15 (79%) remained unchanged and 4 (21%) were upgraded to grade 2 disease on final pathology. Since none of these patients were upgraded to grade 3 or a high-risk histology, none required lymphadenectomy. Of the 32 cases considered grade 2 by intraoperative assessment, 25 (78%) remained unchanged, 5 (16%) were downgraded to grade 1, and 2 (6%) were upgraded to grade 3 on final pathology. One of these two latter patients was upgraded from grade 2 to grade 3 endometrioid histology, and the other patient was upgraded from grade 2 endometrioid histology to clear cell histology. If they were appropriate surgical candidates, both of these patients should have undergone a lymphadenectomy. Using the Spearman’s rank correlation coefficient, the accuracy of intraoperative to final grade was 0.62.

Comparison between intraoperative frozen section assessment and final evaluation of depth of myometrial invasion and endocervical involvement is shown in Figure 2. Of the 17 patients with no myometrial invasion on intraoperative assessment, 13 (76%) had no invasion on final pathology. While 4 (24%) were upstaged on final pathology, the invasion was limited to <50% myometrial thickness in all cases. Since none of these patients had outer-half myometrial invasion or endocervical involvement on final
pathology, none of them would have required a lymphadenectomy based on these changes. Of the 34 cases with <50% myometrial invasion with no endocervical involvement by intraoperative assessment, 30 (88%) were unchanged, 2 (6%) were downstaged, and 2 (6%) were upstaged on final pathology. One of the upstaged patients went from middle one-third/inner one-half myometrial invasion on frozen section to middle one-third/outer one-half myometrial invasion on final pathology. The other patient had superficial myometrial invasion without endocervical involvement on intraoperative assessment and was upstaged to superficial myometrial invasion with endocervical mucosal involvement on final pathology, thus indicating a potential need for a lymphadenectomy. Using the Spearman’s rank correlation coefficient, the accuracy of intraoperative to final depth of myometrial invasion was 0.71.

In summary, 4 of 51 patients (8%) identified as having low-risk disease based on an intraoperative assessment were upgraded or upstaged to a higher-risk category on final pathology and potentially may have benefited from a lymphadenectomy if they were appropriate surgical candidates. Of these four patients, one received adjuvant pelvic radiation as a result of inadequate staging and none developed recurrent disease.

Of the 51 patients identified as having low-risk disease by intraoperative frozen section analysis, 20 underwent a lymphadenectomy at the discretion of the surgeon. None of these 20 patients were upstaged by having disease identified in the lymph nodes on final pathology. The remaining 31 patients did not undergo a lymphadenectomy. The median time of follow-up was 50.4 months (range, 0.1–98.3 months).

The effect of lymphadenectomy on survival in this low-risk cohort is depicted in the Kaplan-Meier curve (Figure 3). There difference between survival rates in those who had a lymphadenectomy versus those who did not was not statistically significant. The 5-year survival of all the patients as a group was 86%, which is the same as the national 5-year survival for stage I disease (Figure 4).

**Discussion**

This fairly small, retrospective study supports the idea that an intraoperative assessment can be fairly accurate in determining which patients require complete lymphadenectomy. Results showed that of the 51 patients with low-risk disease treated between 2000 and 2003, 4 (8%) would have been incompletely staged based on intraoperative assessment compared with...
Twenty of these low-risk patients ultimately had a lymphadenectomy, and none were found to have nodal metastasis. Further, using Kaplan-Meier and log-rank analyses, there was no significant difference in survival when comparing the 20 that were completely staged and the 31 that did not have a complete lymphadenectomy. In fact, of the 51 low-risk patients identified, only 1 (2%) developed recurrent disease and ultimately died of her disease. The mortality in other patients was due to comorbidities, including morbid obesity, heart disease, and diabetes. Many of the patients are referred to Baylor Sammons Cancer Center because they are considered poor surgical candidates in community facilities, and thus it is not surprising that survival rates in a tertiary facility may be slightly lower than in some other centers.

The team of fellowship-trained gynecologic pathologists, gynecologic oncologists, radiation oncologists, and medical oncologists at Baylor Sammons Cancer Center allows for the possibility of accurate preoperative and intraoperative assessment, surgeons’ ability to act on that information, and the expertise to provide appropriate adjuvant therapy. It would, however, be interesting to compare our data to results from similar institutions.

Although the NCCN now recommends a complete pelvic and lower para-aortic lymphadenectomy for all suitable patients undergoing surgery for endometrial cancer, it based this recommendation on previous reports showing both a high degree of inaccuracy of intraoperative assessment and a potential survival advantage for patients undergoing complete lymphadenectomy.12, 13 As Creutzberg indicated in his editorial that accompanied the Gynecologic Oncology Group-99 study, “The comparison of GOG-99 and PORTEC results does not support the use of routine lymphadenectomy in these patients with mainly low intermediate risk disease. . . . The potential benefit of lymphadenectomy depends on the risk of microscopic nodal disease and . . . the procedure would be most effective in cases with a substantial risk of pelvic lymph node metastases”.14 A therapeutic value of lymphadenectomy has not been proven in this low-risk population. Through future prospective trials, it may be possible to reconsider lymphadenectomies in selected low-risk patients to avoid the accompanying morbidities, taking into account risk factors for recurrence including histology, grade, depth of myometrial invasion and cervical involvement as well as others including patient age and lymphovascular space invasion. Selective lymphadenectomy for low-risk patients may not be appropriate at all institutions; however, it may be appropriate at specific centers of clinical excellence to decrease morbidity without increasing mortality.
References

In a field that is as multidisciplinary and rapidly changing as oncology, collaboration and continuing education are essential. Baylor Dallas has an engaged medical staff that focuses on these areas, with each sharing his or her expertise. This section reviews two elements of collaboration and education: the fellowship program and the site tumor conferences.

**Fellowship Programs**

In addition to its focus on patient care and research, Baylor University Medical Center at Dallas is dedicated to medical education. It offers formal programs including a medical oncology fellowship, a breast surgical oncology fellowship, and a breast imaging fellowship.

The medical oncology fellowship under the direction of Marvin J. Stone, MD, has existed since the cancer center opened in 1976 and has to date trained 42 fellows.

The fellows not only become highly skilled clinicians for patients with neoplastic diseases, but also learn how to conduct sound clinical studies and to interpret and expand knowledge in the field of oncology. Rotations throughout the two year program are designed so that each fellow spends 1 to 2 months with an attending oncologist and participates fully in inpatient, outpatient, and consultative care. In addition, Dr. Stone meets with the fellows and residents at weekly “microscope rounds” where they evaluate histologic materials as unknowns and then discuss the cases. Medical oncology fellows, as well as fellows in breast surgical oncology and breast imaging, also participate in site tumor conferences and the cancer center’s other lectures, symposia, journal clubs, and educational offerings.

“The focus on patient care is one of the reasons the fellowship program at Baylor Sammons Cancer Center is rare, if not unique,” said Dr. Robert Mennel, associate director of the fellowship program. “Unlike some purely academic oncology programs, this program clearly gives fellows role models and some idea of how to actually practice oncology.” Baylor Sammons Cancer Center multidisciplinary team treats patients referred by internists, as well as those with unusual oncology problems referred from outside the Dallas–Fort Worth Metroplex.

J. Harold Cheek, MD, began his surgical career at Baylor in 1951. In 1972 he dedicated his practice to diseases of the breast and before retiring in 1995, was instrumental in establishing the Seeger Endowed Fellowship in surgical oncology of the breast which enrolled its first fellow in 1982, it was one of the first programs of its kind in the nation. Since then, 22 fellows have completed training. The fellows have rotations in breast surgery, medical...
Focused on collaboration and education

Ronald C. Jones, MD, chief of surgery at Baylor Dallas, is program director. The most recent fellowship program focuses on breast imaging. This program began in 1992 to provide board-certified diagnostic radiologists with specialized training in screening, diagnostic, and interventional breast imaging procedures and research. The Baylor University Medical Center at Dallas Darlene G. Cass Women’s Imaging Center performs more than 50,000 mammograms and interventional procedures annually. Working with radiologists on the medical staff at Baylor Dallas, fellows are trained in the performance of breast physical examination, screening and diagnostic mammography, breast sonography, wire localization, specimen mammography, cyst aspiration, image-guided needle biopsy of solid lesions, galactography, and breast magnetic resonance imaging. Thomas Langer, MD, a radiologist on the medical staff at Baylor Dallas, is program director for this fellowship.

The multidisciplinary members of the Department of Oncology agree that teaching fellows and residents improves patient care.

Dr. Mennel explained it this way: “With a fellowship program, you constantly have people asking questions about why you’re doing something in a certain way. That means you have to keep thinking about whether that’s the appropriate way to be practicing or the appropriate thing to do.” The teaching component keeps all the physicians focused on lifelong learning, since new information constantly changes the practice of oncology.

Site-Specific Conferences

by Z. H. Lieberman, MD

Historically, most cancer centers utilize multidisciplinary conferences in the planning of the care of the oncology patient. The Baylor Charles A. Sammons Cancer Center holds 240 site-specific conferences per year, with case discussions of about 800 patients. Individual conferences focus on bone and soft tissue, breast, chest, skin, head and neck, the endocrine system, the gastrointestinal system, neurology, urology, gynecology, and hematopoietic diseases. Attendance has grown each year to more than 6,000 attendees in 2007, including representation from multiple medical disciplines as well as fellows, residents, interns, nurses, and allied health professionals (see Table).
The goals of the site-specific conferences are to improve the care of the oncology patient and to establish a background for team learning. The discipline of team learning involves mastering and coordinating dialogue and discussion. In a discussion, the purpose is to reach a decision, with each participant attempting to make his or her position dominant. In a dialogue, the purpose is to develop a “meeting of the minds,” reaching no conclusions but rather expanding the knowledge of all participants.

Collaborative learning is based on the concept that collectively we can be more insightful and more intelligent than we can be individually. David Böhm, a leading quantum theorist, described dialogue as becoming open to the flow of larger intelligence. In dialogue, people become observers of their own thinking and can begin to recognize any incoherence in each other’s thoughts. In this way, collective thought becomes more and more coherent. The philosopher Mortimer Adler added that conversation and dialogue are key for the growth of the mind in pursuit of understanding and wisdom.

Böhm identified three conditions necessary for dialogue:
1. All participants must suspend their assumptions.
2. All participants must regard one another as colleagues.
3. A facilitator must “hold the context” of the dialogue.

The skills that allow dialogue are identical to the skills that can make discussions productive rather than destructive. A learning organization masters movement back and forth between dialogue and discussion.

In addition to improving patient care and serving as the foundation for lifelong learning, the site conferences have designed and maintained a shared vision among the physicians. Such a vision occurs when all participants have the desire to be connected to an ennobling mission and to one another; the vision is maintained when individuals not only express their ideas but also learn how to listen to others’ views.

### Table

<table>
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<th>Year</th>
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<td>2006</td>
<td>235</td>
<td>687</td>
<td>5898</td>
</tr>
<tr>
<td>2007</td>
<td>240</td>
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</table>

In addition to improving patient care and serving as the foundation for lifelong learning, the site conferences have designed and maintained a shared vision among the physicians.
Cancer research studies on the Baylor Dallas campus are conducted through Baylor Research Institute, Mary Crowley Medical Research Center, Texas Oncology, and US Oncology. In 2007, 267 oncology research trials were active at Baylor Dallas (see Table). Of those, 68 were conducted through Baylor Research Institute, including 16 new studies approved in 2007. US Oncology at Baylor Sammons more than doubled their accruals from 2006 (138) to 2007 (256), and finished 2007 as the top accruing location/site for the entire network.

### New Drugs in Kidney Cancer
*by Thomas E. Hutson, DO, PharmD*

Between December 2005 and May 2007, the Food and Drug Administration (FDA) approved three drugs that have been shown in clinical trials to improve progression-free survival in patients with renal cell carcinoma. Baylor Charles A. Sammons Cancer Center at Dallas was instrumental in bringing these drugs to patients through cancer research trials managed by Texas Oncology. Thomas Hutson, DO, PharmD, an oncologist on the medical staff at Baylor Dallas, participated as a lead investigator on the phase III international clinical trials that led to the FDA approval of sorafenib and sunitinib and most recently temsirolimus.

“Sutent® (sunitinib), Nexavar® (sorafenib), and Torisel™ (temsirolucion) have improved clinical outcomes in randomized trials,” said Dr. Hutson. “These are the first new drugs approved for treatment of advanced renal cell cancer in almost two decades.”

For years, the standard treatment for advanced kidney cancer was interferon, which is effective in only about 15% of patients and causes flulike side effects, decreasing quality of life. There was no alternative—until now.

Temsirolimus is a first-in-class drug and operates as an inhibitor of mTOR, or the mammalian target of rapamycin, which regulates cell growth and nutrition. Sorafenib and sunitinib differ in that they target and inhibit vascular endothelial growth factor and platelet-derived growth factor, factors that tumor cells need to grow. These targeted therapies don’t have the side

<table>
<thead>
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<th>Research Studies</th>
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<tr>
<td>Advanced carcinoma</td>
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<td>Bladder cancer</td>
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<td>Brain cancer</td>
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<tr>
<td>Prostate cancer</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>267</strong></td>
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</table>
effects of interferon, which means that patients can work, travel, and enjoy normal activities while undergoing treatment.

In clinical trials, sorafenib and sunitinib caused tumor shrinkage in 70% to 80% of patients. Also, research has shown that if one of these three drugs stops working in a patient, switching to another will produce the same positive effects.

“Once you can achieve some degree of tumor shrinkage, the tumor becomes stable and won’t grow any further. That increases patients’ survival time,” Dr. Hutson explained. Already sunitinib and temsirolimus have surpassed interferon as the standard first-line treatment for advanced kidney cancer.

“We have a comprehensive renal-cell cancer program at Baylor Dallas with a variety of clinical trials evaluating new and exciting therapies,” Dr. Hutson said. The focus now is on more research to find out how to use all three of these drugs to the best advantage.

CellSearch: Breakthrough Cancer Screening for Smokers

In March 2007, the Dallas-based Mary Crowley Medical Research Center, in collaboration with the Baylor Sammons Lung Cancer Center, launched a study aimed at early detection of lung cancer in high-risk smokers. Neil Senzer, MD, is the principal investigator for this study.

A high percentage of lung cancer deaths are caused by cigarette smoking, and the latest statistics from the Centers for Disease Control and Prevention show that 180,262 lung cancer cases are diagnosed each year, and 157,630 of those result in death. Detecting this type of cancer at an early stage may be possible through the use of a new technology designed to detect circulating tumor cells (CTCs) in the body. CTCs are cancer cells that have detached from solid tumors and entered the bloodstream. This can begin the process of metastasis, the most life-threatening aspect of cancer.

The CellSearch™ System can pinpoint a single cancerous cell among 40 billion blood cells. To put that into perspective, a tumor the size of a grain of rice has about a million cells; a pea-sized tumor has nearly a billion cells. The study targets asymptomatic persons aged 50 to 74 with a 40-pack-year history of smoking who are current smokers or who have quit smoking within the past 10 years.

The goal is to save lives by detecting early stage cancer in this population of smokers so they can get treatment. The study may prove that this screening approach will prove to be an earlier detection step at a cost-effective rate for those who are at high-risk for lung cancer.

Other Lung Cancer Research

The CellSearch prevention study is only one example of Baylor’s lung cancer-related research. The Baylor Sammons Cancer Center participates in 10 to 15 lung cancer treatment trials at any given time. "We are always looking for different combinations of
treatments,” said Kartik Konduri, MD, oncologist and principal investigator for several lung cancer research studies. “Clinical trials are important because the standard treatment is yet to be defined in thoracic oncology. These studies are the only way to know if a medicine or treatment is better than the current treatment protocols. Any treatment we can add on, or modify, to increase the chances of survival or decrease the chance of the patient having a relapse is a huge accomplishment.”

One current study, called the RADIANT trial, is testing erlotinib, a drug shown to help patients with advanced non–small cell lung cancers, to see if it will benefit those with early stage lung cancer as well.

**Efforts to Develop Therapeutic Cancer Vaccines**

For several years, the Baylor Institute for Immunology Research (BIIR) has worked to develop a dendritic cell vaccine to treat melanoma. Results of phase I and phase II studies have been promising (see Figure 1).

Jacques Banchereau, PhD, director of BIIR, explained the concept of the vaccines. Unlike traditional vaccines used to prevent diseases, these therapeutic vaccines are designed as personalized cancer treatments using cells from the patient’s own immune system. To develop the vaccines, Baylor researchers cultivate dendritic cells, a class of white blood cells that initiate and control the body’s overall immune response against foreign invaders, and manipulate them to attack the cancer. “I am personally convinced that individualized therapy will become the treatment of choice within 10 to 20 years,” Dr. Banchereau stated. This targeted form of therapy also may avoid the toxic side effects of chemotherapy and radiation.

In 2007, Baylor stepped up its efforts to create vaccines for different types of cancer.

In October, Baylor Research Institute and Mount Sinai School of Medicine announced their collaboration to develop therapeutic cancer vaccines for patients with lymphoma and myeloma, both cancers that affect the immune system.

Also in October, Baylor Research Institute received a $300,000 grant from Susan G. Komen for the Cure, the leader of the breast cancer movement, to fund the development of a breast cancer vaccine that uses dendritic cells. Karolina Palucka, MD, PhD, a cancer immunologist at BIIR, is the lead investigator of the study.
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38. Nishida N, Nagasaka T, Kashiwagi K, Boland CR, Goel A. High copy am-
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  JM, Boland CR, Goel A. Epigenetic and genetic alterations in Ntrir-1

41. Small EJ, Sacks N, Nemunaitis J, Urba WJ, Dula E, Centeno AS, Nelson
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44. Sonpavde G, Hutson TE. Recent advances in the therapy of renal cancer. 

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46. Sonpavde G, Ross R, Powles T, Sweeney CJ, Hahn N, Hutson TE, Galsky
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  JM, Boland CR, Goel A. Epigenetic and genetic alterations in Ntrir-1
Hope comes in many forms. It comes through the ways already reviewed: a focus on the whole patient, specialized care, quality, education, collaboration, research. It comes with each moment of relief, each touch of healing, each smile, each extension of loving care.

The Baylor Health Care System Foundation is working to ensure that these moments continue and that all the needs in oncology are met. Many people have generously responded to the call and been stewards of hope.

Several successful fundraising efforts for oncology occurred in 2007. Perhaps best known is Celebrating Women, held on October 16, which raised $3.5 million for breast cancer research, community outreach, and expanded technology for early detection and treatment. Lynn Redgrave, award-winning actress, playwright, published author, and breast cancer survivor, addressed more than 1,300 guests during the luncheon.

Would you like to support some of the innovative cancer-related research being conducted within Baylor Health Care System? Through the Baylor Health Care System Foundation, you can give to a specific area or make a gift to Cancer Initiatives. Your gift helps Baylor bring new treatments to the battle against cancer. Your generosity is welcome and very much appreciated. Thank you!

Gifts to Baylor Health Care System Foundation also may be made online at BaylorHealth.com: click on “Ways to Give.”

Yes, I want to make a difference!
I’ve enclosed a tax-deductible gift in the amount of:

- $1,000
- $500
- $250
- $100
- $25
- Other $ ____________________________

I wish to designate my gift to:

- Cancer Research at Baylor
- The Virginia R. Cvetko Patient Education Center—education and support programs to help patients and their families understand and manage the challenges of cancer
- An unrestricted gift to the Baylor Health Care System Foundation to support Baylor’s mission of serving all people through exemplary health care, education, research and community service
- Other: ____________________________

Payment method:

- Check enclosed (made payable to Baylor Health Care System Foundation)
- Credit card payment
  - American Express
  - Discover
  - MasterCard
  - Visa
  (3- or 4-digit security code from back of credit card: ____________)

Name on credit card ____________________________
Card number ____________________________
Expiration date ____________________________
Phone number ( ________ ) ____________________________
Signature ____________________________
Address ____________________________
City ____________________________ State ________ Zip ____________

Mail to: Baylor Health Care System Foundation, 3600 Gaston Avenue, Suite 100, Dallas, Texas 75246

- I wish for my gift to be anonymous.
- I would like to know more about how I can financially support Baylor Cancer Initiatives. Please have someone contact me.
Referrals
Baylor Sammons Cancer Center at Dallas
Patient Navigation Program
(214) 820-3535
Baylor Physician ConsultLine
1-800-9BAYLOR
Baylor Patient HelpLine
1-800-4BAYLOR

Administration
Cancer Center Administration
Marvin J. Stone, MD, Director
(214) 820-3445
Donna Bowers, JD, RHIA, CHP, Baylor Health Care System Vice President/Oncology
(214) 820-2800
Sylvia Coats, Director of Administration
(214) 820-3433
Ryan T. Seymour, RHIA, BHCS Director Oncology
(214) 820-6322
John McWhorter, MHA, President,
Baylor University Medical Center at Dallas
(214) 820-6322

Texas Oncology
R. Steven Paulson, MD, President
(214) 370-1000

Baylor Health Care System Foundation
(214) 820-3136

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Radiation Oncology
R. Pickett Scruggs, III, MD, Director
(214) 370-1400

Surgical Oncology
John T. Preskitt, MD, Director
(214) 826-6270

Cancer Center Programs
Blood and Marrow Transplantation
(214) 370-1500

Graft-vs-Host Disease Clinic (GVHD)
(214) 820-2619

Inpatient Services
(214) 370-1500

Outpatient Center
(214) 820-4279

National Marrow Donor Program

Breast Centers
Baylor Sammons Breast Imaging Center
(214) 820-2430

W. H. & Peggy Smith Baylor Sammons Breast Center
(214) 820-9600

Cutaneous Lymphoma Clinic
(214) 370-1500

Hereditary Lymphoma Clinic
(214) 370-1500

Liver and Pancreas Disease Center
(214) 820-1756

Lung Cancer Center
(214) 820-6767

Lymphedema Program
Lymphedema prevention and treatment services
(214) 820-1931

Radiosurgery Center
(214) 820-7285

Research
Baylor Institute for Immunology Research
Jacques Banchereau, PhD, Director
(214) 820-7450

Baylor Research Institute
Michael A. E. Ramsay, MD, President
(214) 820-2687

Breast Cancer Prevention Research Trials
Joyce A. O'Shaughnessy, MD, Director
(214) 820-9600

Cancer Immunology Research Laboratory
Marvin J. Stone, MD, Director
(214) 820-4123

Mary Crowley Medical Research Center
John Nemunaitis, MD, Executive Medical Director
(214) 370-1870

National Surgical Adjuvant Breast and Bowel Project
Michael D. Grant, MD, Director
(214) 820-9600

US Oncology/Texas Oncology Research
Joanne L. Blum, MD, PhD, Site Leader
(214) 370-1000

Support Services
Ernie's Appearance Center
(214) 820-8282

Screenings
1-800-4BAYLOR

Smoking Cessation Program
(214) 820-9791

Virginia R. Cvetko Patient Education Center
(214) 820-2608

Barrett Lectureship

Community resource referrals

Individual counseling

Nutrition education/support

Patient/family education and support programs:

Amyloid Support North Texas

Blood and Marrow Transplant Inpatient Support Group

Carcinoid Cancer Texas Survivors

Caregivers Support Group

North Texas Myeloma Support Group

Oncology Inpatient Support Group

Ovarian Cancer Support Group

Prostate Cancer Education and Support Group

Support for People with Oral and Head and Neck Cancer

Virginia R. Cvetko Living with Cancer Series

Waldenström’s Macroglobulinemia Support Group

Patient resource centers/oncology libraries

6 Collins Hospital

6 Roberts Hospital
Baylor Sammons Cancer Center is located on the campus of Baylor University Medical Center at Dallas, and is accessible from U.S. 75 (North Central Expressway)/I-45 and I-30.

Valet parking is available at the front entrance and other nearby locations.

Self parking is conveniently located adjacent to the Baylor Sammons Cancer Center.