“Intense activity continues to focus on long-range planning and the development of a regional cancer center of unprecedented excellence.”
From the Medical Director

At Greenville Hospital System University Medical Center, the Cancer Center has continued to evolve as a regional resource and destination for patients of South Carolina and the southeastern United States. The depth and diversity of clinical offerings, coupled with a nationally recognized clinical trials program, set the foundation for cancer care from pediatrics to all specialties of adult oncology.

The Cancer Center at GHS University Medical Center has expanded the multidisciplinary center (MDC) concept of time-efficient consultation by a multidisciplinary team. With this approach, patients receive unique coordination of care while physicians benefit from the direct interpersonal collaboration and efficient interaction with other clinical services. Numerous specialty and sub-specialty surgical oncologists are housed at the hospital system, providing state-of-the-art care in thoracic, breast, gastrointestinal, gynecologic oncology, orthopaedics, and melanoma/sarcoma oncology. The MDC also supports the interaction of surgical specialist in neuro-oncology, genitourinary, and head and neck cancers. Medical and radiation oncology services are provided in conjunction with CancerCenters of the Carolinas, with 20 physicians covering all aspects of adult hematology and oncology.

The hospital system's Oncology Research Institute (ORI) has expanded its laboratory efforts to include immunotherapy offerings in melanoma and renal cell carcinoma while also continuing pre-clinical work on novel therapeutic agents targeting prostate and breast cancer. Dr. Tom Wagner's group has received international recognition for innovative cancer research, and team members have contributed heavily to the basic science understanding of cancer and clinical oncology, in general.

In 2004, both the Cancer Center and CancerCenters of the Carolinas launched an unprecedented program with the opening of the Oncology Phase I Clinical Research Unit (CRU). This unit targets the transition of promising therapeutics from the lab into highly supervised clinical trials. The CRU will provide the initial clinical testing of treatments developed in the ORI but will also collaborate with academic and pharmaceutical firms worldwide to bring unparalleled clinical research options to South Carolina. This freestanding unit, with its own dedicated staff, is directed by Joe Stephenson, M.D., newly appointed director of Experimental Therapeutics for the hospital system.

The center continues to expand its programs in almost every area. Pediatric Hematology/Oncology provides comprehensive care for the entire region. The Ambulatory Infusion Center has experienced record use, necessitating an increase in staff and hours of operation. The radio-immunotherapy program has added treatment options for patients with advanced non-Hodgkins lymphoma. Clinical trials for treatment of virtually all malignancies continue to expand in conjunction with the pharmaceutical industry, National Cancer Institute, and ORI. Greenville Community Clinical Oncology Program also has increased its operations at the center.

The Cancer Center remains the pivotal sponsor of physician, allied health, and patient education efforts. The Gerald King Lectureship Series, specific disease symposia, and the Oncology Pharmac Lectureship Series for pharmacists and oncology nurses all support ongoing, high-caliber medical education. The center underwent a successful ACoS Survey, ensuring renewal of its three-year accreditation. Likewise, the Cancer Care Committee is supporting an increased thrust for clinical excellence in chemotherapy administration, community awareness, and outreach programs.

The Cancer Center is poised to support and expand cancer care activities beyond the Upstate. Many of our innovative efforts already draw patients from the entire southeastern United States. The unique offerings of ORI and CRU result in exposure at a national level. Intense activity continues to focus on long-range planning and the development of a regional cancer center of unprecedented excellence.

Sincerely,

[Signature]

W. Larry Gluck, M.D.
Medical Director, Oncology Programs
Cancer Care Committee Report

The Cancer Care Committee coordinates the oversight and direction of oncology services at Greenville Hospital System University Medical Center. The committee meets bi-monthly, as does its Process Improvement subcommittee.

Several major projects were undertaken during 2003-2004. The Cancer Registry was restructured under the administrative leadership of Dawn Blackhurst, Ph.D., and the medical directorship of Steven Trocha, M.D. Emphasis on pathology case capture and subsequent quality of Cancer Registry data fostered a reorganization of policies and procedures.

Brian McKinley, M.D., was appointed community outreach coordinator and physician liaison for the American College of Surgeons. The Cancer Care Committee coordinated screening efforts in the community and expanded outreach activities on the basis of Cancer Registry findings.

Subcommittees were formed to address process improvement activities focusing on chemotherapy administration, isolation procedures and compliance, and ways to streamline discharge planning for hospitalized patients. Task forces analyzed specific disease and treatment outcomes for a variety of malignancies, placing particular emphasis on comparisons to regional and national standards.

The Cancer Care Committee continues to oversee the weekly Tumor Board Conference. All standards of the American College of Surgeons regarding the Cancer Conference process were either met or exceeded. Broad participation by physicians and other healthcare providers and detailed presentations on an array of cancer cases and associated therapies continued to be strong components.

Benchmarks for 2005 include continued focus on excellence in the Cancer Registry and overall program development, both within the hospital system and through community outreach efforts.

Cancer Care Committee Membership

W. Larry Gluck, M.D.  Larry E. Puls, M.D.  Annette Dunphy R.N., B.S.N., OCN
Chairman  GYN Oncology
Medical Director,  Brian McKinley, M.D.  Bobbie Rhodes  Director, Outcomes Management
Oncology Programs  Surgical Oncology/ Cancer Liaison Physician
Philip E. Van Hale, M.D.  Stephen Trocha, M.D.  Dawn Blackhurst  Manager, Quality Management
Pathology  Surgical Oncology/ Medical Director,
S. Eric Farnsworth, M.D.  Medical Director, Cancer Registry
Radiology  Cancer Registry
Kim Gococo, M.D.  Larry E. Puls, M.D.
Medical Oncology  GYN Oncology
Lewis Terry, M.D.  Annette Dunphy
Radiation Oncology  R.N., B.S.N., OCN
James W. Hayes, M.D.  Bobbie Rhodes
Pediatric Oncology  Director, Outcomes Management
Eric S. McGill, M.D.  Dawn Blackhurst
General Surgery  Manager, Quality Management
Harold Tsai, M.D.  Gail Crawford  R.N./Palliative Care
Urology/Oncology  Lyndon Evans  Manager, CCOP

Ex-officio:

Linda Hillman  Derinda King  Linda Phillips
Program Manager, Oncology  Manager, ACS Community Control  Lead Cancer Registrar
Steve Gresham  Administrator, Cancer Center
Annette Dunphy  R.N., B.S.N., OCN
Bobbie Rhodes  Director, Outcomes Management
Dawn Blackhurst  Manager, Quality Management
Gail Crawford  R.N./Palliative Care
Lyndon Evans  Manager, CCOP
Derinda King  Manager, ACS Community Control
Linda Phillips  Lead Cancer Registrar
**Medical Oncology/Hematology**
The Medical Oncology/Hematology Department relies on the expertise of two physician groups to provide oncology and hematology therapy from the full spectrum of antineoplastic medications: cytotoxic, biologic, and immunologic.

The latest developments in therapy for specific malignancies are offered to patients through the department’s participation in numerous clinical research trials. Many of these trials are offered through the Clinical Research Unit, located in the Cancer Center.

The Medical Oncology/Hematology Department provides outpatient services in the Cancer Center and oncology multidisciplinary center. It also provides inpatient services in a 30-bed oncology nursing unit.

**Surgical Oncology**
Surgical Oncology services at Greenville Hospital System University Medical Center include state-of-the-art techniques in every aspect of cancer treatment and diagnosis. Recent developments in surgical oncology for liver neoplasms (both primary and metastatic), breast, melanoma, pancreatic, colorectal, sarcoma, esophageal, gastric (stomach), and peritoneal cancers have been quickly and readily incorporated into the armamentarium of the hospital system’s surgical staff. These developments include advances in sentinel lymph node biopsy, radiofrequency ablation of liver tumors, intraoperative ultrasound, nerve-sparing prostatectomy, neobladder construction for bladder cancer, cryoablation for renal tumors, and hepatic artery infusion pumps.

Surgeons involved in the care of cancer patients continue to strive for the latest, most advanced techniques to elicit cures. Sub-specialists with oncologic specialty training are available in the fields of orthopaedic, urologic, and breast surgery, as well as in general surgical oncology.

**Breast Health**
The Breast Health Center brings together the resources of the hospital system’s Cancer Center, Center for Women’s Medicine, and Radiology Services to offer women the most innovative measures in breast cancer prevention, diagnostics, and treatment. In the area of imaging, which is so important in the management of breast disease, we offer state-of-the-art breast imaging—including screening and diagnostic mammography, ultrasound, stereotactic breast biopsy, and ultrasound-guided biopsies—with interpretation by highly specialized radiologists who perform breast imaging exclusively and who are fellowship trained.

This center offers women undergoing surgery for breast cancer the expertise of a fellowship-trained surgical oncologist dedicated to breast malignancies.

**Orthopaedic Oncology**
Patients with bone and soft tissue tumors receive state-of-the-art care at the Cancer Center. In addition to primary bone and soft tissue sarcomas, bone metastases from carcinomas at other sites are treated, as are benign bone and soft tissue lesions requiring diagnosis or removal. Although primary bone cancer can affect anyone, it is relatively rare. Most malignant bone cancer tumors are the result of cancers that originate in one of the organs in the body and then spread to the bone. Treatment of metastatic cancer generally focuses on managing pain and preserving limbs through chemotherapy and radiation.

Such surgery is performed at the hospital system by the state’s only orthopaedic oncologist, Bryan Moon, M.D.

**Clinical Trials**
Taking part in clinical trials may be recommended in tandem with surgery. Hospital system cancer patients are active participants in many clinical trials through the Greenville Community Clinical Oncology Program (CCOP) and through the system’s Clinical Research Unit. These trials offer the latest surgical advances, combined with medical and radiation oncology, for eligible patients. As a result, residents rarely travel out of the area for specialized cancer techniques or services.

**Radiation Oncology**
Radiation oncology is a rapidly changing field. Both the Cancer Center and Cancer Centers of the Carolinas offer the latest advances in radiation treatment, improving quality of life.

Novalis® state-of-the-art technology is now being utilized for patients undergoing stereotactic radiosurgery or stereotactic radiotherapy. Novalis can be used to treat brain (benign and malignant), lung, head, neck, spine, liver, and prostate tumors. It is precise, minimizes damage to normal tissue, and is performed on an outpatient basis.

Six board-certified radiation oncologists from Cancer Centers of the Carolinas provide the oversight of a radiation team, which includes a physicist, therapists, nurses, and dosimetrists. This large staff is necessary to offer such advanced radiation services.
Gynecologic Oncology

Women in the Upstate diagnosed with benign, pre-cancerous, or cancerous conditions of the reproductive system receive comprehensive care from gynecologic oncologists at Greenville Hospital System University Medical Center based on the latest breakthroughs in technology and research. Such oncologists understand the complexities of these conditions and needs of women with cancer, and they help women and their families understand their diagnoses, surgery, and long-term treatments, such as radiation therapy and chemotherapy.

Gynecologic oncologists James Hunter, M.D., and Larry Puls, M.D., diagnose and treat ovarian, uterine, cervical, and other cancers of the reproductive tract. The pair have undergone extensive training in obstetrics, gynecology, and gynecologic oncology, including training in radical pelvic, gastrointestinal, and urologic surgery. In addition, they take a multidisciplinary approach to treatment; both specialists work closely with radiation oncologists, medical oncologists, and other surgeons if cancers have metastasized.

The complex training and multidisciplinary approach offered by these physicians emphasize the development of a long-term, meaningful relationship with the patient, enhancing the patient's care.

Through Gynecologic-Oncology Research & Development, LLC, Dr. Hunter and Dr. Puls are actively involved in gynecologic oncology trials. The research facility, which is located in downtown Greenville, conducts studies on ovarian, cervical, and endometrial cancers. Physicians and research staff are also working to improve the quality of life for patients undergoing treatment. At present, this facility is enrolling patients in 10 studies involving treatment for medication side effects such as nausea, vomiting, and anemia.

Gynecologic-Oncology Research & Development, LLC, is proud to boast the highest enrollment in a national multi-center trial for an investigational drug for third-line therapy in platinum refractory or resistant ovarian cancer.

Pediatric Hematology/Oncology

The Pediatric Hematology/Oncology Center (PHOC) of Greenville Hospital System University Medical Center Children's Hospital provides comprehensive, leading-edge care for infants, children, and young people with various hematologic or oncologic conditions. PHOC serves a population of approximately 300,000 children living within a 60-mile radius of Greenville. Patients with diagnoses such as leukemia, Hodgkin's disease and other lymphomas, hemophilia, ITP, aplastic anemia, and sickle cell disease are cared for by a team consisting of board-certified pediatric hematologists/oncologists, nurse clinicians, full-time social worker, clinical psychologist, Child Life worker, and a chaplain.

Each year, the PHOC sees more than 4,500 patients, many of whom receive care at satellite clinics conveniently located in Spartanburg, Anderson, and Greenwood. The majority of patients with cancer are treated on current protocols of the Children's Oncology Group (COG). PHOC is an active member of that group.

Pediatric Hematology/Oncology staff members continue to provide comprehensive supportive services for the patients and families served by the center. Camp Courage, which takes place each summer at Camp Greystone in Tuxedo, North Carolina, continues to be a huge success year after year. Teen-agers, through support from the Clement's Kindness Fund, enjoy a monthly support group, several weekend retreats, as well as movies and sports events throughout the year. School-age patients also have a monthly support group, which includes activities and lunch for both them and their parents.
Colorectal Carcinoma

Colorectal carcinoma (CRC) is the second leading cause of cancer deaths in the United States, with more than 57,000 deaths expected in 2003. Data from the Tumor Registry at the Cancer Center suggest some signs as to why this is the case. In this overview, we will review the last decade and compare it to 2003. In addition, we will put CRC into context with other cancers treated in the Upstate. Finally, we will mention the latest diagnostic and therapeutic (surgery and/or chemo-radiation) options available from the dedicated, compassionate physicians who deliver world-class care right here at the Cancer Center.

In 2003 CRC was diagnosed in 184 patients at the Cancer Center: 53% were male and 47% female. Of that number, 87% were Caucasian and 13% African American. Age distribution demonstrates why getting a colonoscopy at age 40 is so important, with a fourfold increase in CRC diagnosis seen between 30-39 vs. 40-49, 5% to 20%, respectively. This figure doubles when comparing people 40-49 vs. 50-59, from 20% to 40%.

In comparison to last decade’s data, these numbers have changed little. The message, however, is clear: Obtain a screening colonoscopy at age 40.

In most cancers, the stage at presentation is important not only in discussing prognosis but also in outlining treatment planning. For 2003 the American Joint Commission on Cancer (AJCC) staging system for CRC was distributed as follows: Stage 0 (in situ), 7.5%; Stage I, 22%; Stage II, 26%; Stage III, 20.5%; and Stage IV, 18%. In the Greenville area, the data show that nearly 40% of patients present with locally advanced or distant disease.

Through the Cancer Center, several clinical and research groups provide hundreds of trials for patients. These trials are principally divided between two groups: Greenville Community Clinical Oncology Program (CCOP) and the hospital system’s Clinical Research Unit (CRU), both of which bring state-of-the-art programs to patients locally. Despite advances in technology, however, communication remains the most fundamental and important part of medicine. To this end, we have established oncology multidisciplinary centers (MDC) at the Cancer Center where patients can meet with all potential treating physicians in one visit. The physicians then confer and propose a plan of treatment for the patient during that appointment.

Lastly, our surgical approaches continue to evolve. Greenville Hospital System University Medical Center offers the most advanced techniques through fellowship-trained surgical oncologists. Currently, these specialists perform formal liver resection for CRC metastases, intra-arterial hepatic infusion pumps (HAI), radiofrequency ablation (RFA), intraoperative ultrasound examination of the liver, laparoscopic approaches to colon resections, and highly advanced identification of lymph nodes using sentinel node intraoperative mapping. These procedures offer patients the most accurate assessment of prognosis and the best chance for a cure.

Steven D. Trocha, M.D.
Surgical Oncologist, Upstate Surgical Specialists
Breast Cancer

Few cancers evoke such intense emotional responses as when patients find out they have breast cancer. Unfortunately, this diagnosis is common. In the United States and in the Upstate, breast cancer is the most common cancer and the second most common cause of cancer-related death in women. This year in South Carolina, over 3,000 women will develop breast cancer and more than 600 will die of the disease.

In 2003, 376 cases of breast cancer were diagnosed and/or treated at the hospital system and by its affiliated physicians. At the time of diagnosis, 53% of these women had cancer limited to the breast, 40% had involvement of the lymph nodes, and 4% exhibited spread beyond the breast and lymph nodes. Although age is a risk factor (approximately 75% of cases occur in women over age 50), breast cancer strikes younger women as well. A review of Cancer Center Tumor Registry data revealed that 26% of women diagnosed with breast cancer in 2003 were under age 50.

These statistics highlight the importance of informing women of their risk for developing breast cancer and beginning that educational process in early adulthood.

Involves blocking the effects of estrogen through selective estrogen receptor modulators (SERMs). In one clinical trial, the SERM tamoxifen demonstrated the ability to prevent breast cancer in some high-risk women. In a subsequent study called STAR (Study of Tamoxifen and Raloxifene), investigators will try to see whether the SERM raloxifene is a better prevention option. Accrual to the STAR trial closed in June 2004, and preliminary results are expected by summer 2006. The hospital system has actively participated in both drug trials and is dedicated to bringing these and other important clinical studies to the Upstate.

The hospital system also has fellowship-trained cancer specialists with expertise in the diagnosis and treatment of breast cancer. At its Breast Imaging Suite, four full-time radiologists are dedicated to the screening and diagnostic imaging of breast diseases. In addition, the hospital system employs three fellowship-trained surgical oncologists who integrate the latest surgical techniques into diagnostic and therapeutic approaches to fighting breast cancer. Outstanding medical and radiation oncologists are available for compassionate delivery of adjuvant therapies. Finally, participation in therapeutic clinical trials is encouraged by physicians and facilitated by involvement in the Greenville Community Clinical Oncology Program. This commitment to clinical research gives breast cancer patients access to approximately 30 trials at any time.

In addition, the system maintains a commitment to a woman's overall sense of self and well-being. It is active in community programs such as breast cancer survivor support groups, the Susan G. Komen Foundation, and educational health forums. In these ways, the hospital system reaches out to women with breast cancer and helps them heal, both in body and in spirit.

The American Cancer Society recommends that women in their 20s be informed about self breast exams. Women between 20-39 should undergo a clinical breast exam at least every three years. Beginning at 40, a clinical breast exam and screening mammograms should be performed annually.

While these recommendations apply to those at average risk for breast cancer, some women fall into high-risk categories and may benefit from a more individualized approach. Myriad risk factors exist and isolating the impact of any or all factors can be complex. Fortunately, through its affiliated clinical staff, the system provides a comprehensive risk assessment program that ranges from documentation of personal and family medical history to genetic counseling and testing. The system also offers the latest advances in breast cancer prevention methods.

Several strategies for decreasing the risk of developing breast cancer have been evaluated scientifically. One involves blocking the effects of estrogen through selective estrogen receptor modulators (SERMs). In one clinical trial, the SERM tamoxifen demonstrated the ability to prevent breast cancer in some high-risk women. In a subsequent study called STAR (Study of Tamoxifen and Raloxifene), investigators will try to see whether the SERM raloxifene is a better prevention option. Accrual to the STAR trial closed in June 2004, and preliminary results are expected by summer 2006. The hospital system has actively participated in both drug trials and is dedicated to bringing these and other important clinical studies to the Upstate.

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Brian P. McKinley, M.D.
Surgical Oncologist, Upstate Surgical Specialists
Weekly Site-Specific Tumor Conferences
Each week, conferences take place that have multiple specialties come together to review cancer cases and discuss their management. The majority of these conferences precedes a multidisciplinary clinic that same day to further improve the quality of care and treatment options for patients. Conferences include breast, gastrointestinal, thoracic, general tumor, and pediatric.

King Lectureship
This unique lectureship series pays homage to one of Greenville's most dedicated medical oncologists, Gerald W. King, M.D. His insight and relentless pursuit of advanced treatment options have led to sponsorship of this lecture series by nationally recognized experts who come to the Upstate and provide an overview of the latest cancer developments. The most recent of these lectures was on prostate cancer in the spring of 2005.

Basic Science Symposium
The Cancer Center offers wide-reaching efforts to enhance and benefit research in the Upstate by bringing together scientists from around the state to discuss individual research efforts and how best to collaborate on them. In February 2005, the Oncology Research Institute hosted a meeting between the University of South Carolina and Greenville Memorial Hospital scientists to discuss ongoing research and how to form closer clinical and basic science research alliances. From this meeting came a detailed and ongoing discussion of Tissue Bank development.

Scientific Review
An integral part of any cancer institute is the development of, participation in, and accrual to clinical research protocols. To this end, a monthly meeting is led by Cancer Centers of the Carolinas, which reviews numerous clinical protocols from around the nation. These protocols are discussed in terms of feasibility, appropriateness to our community, and general interest or need. Once the review is completed, which includes comments from research nurses, medical oncologists, surgical oncologists, and radiation oncologists, the protocol is submitted for IRB approval.

Future Physicians
No profession can survive without the interest and support of new generations being committed and passionate about the practice of medicine and surgery. As a formal affiliate teaching campus of the University of South Carolina School of Medicine, GHS University Medical Center has 138 residents in eight specialty programs. These physicians rotate through the Cancer Center as part of their clinical training. The hospital system has been involved in resident education since 1926 and currently has approximately 155 full-time faculty.

Educational Development and Focus
The Cancer Center is committed not only to patient care but also to community education, physician education, and nursing and allied health professional enhancement. This focus on education is demonstrated through numerous programs.
Inpatient Care/Oncology Nursing

The Inpatient Oncology Unit, located on the fifth floor of Greenville Memorial Hospital, consists of 30 private rooms for patients admitted for treatment of cancer or disease-related conditions. Oncology nurses and other staff in this unit are dedicated to serving the needs of patients and their families.

Nurses and other staff must undergo special education and advanced certification to stay abreast of the advancing technology in the care and treatment of various types of cancer. Thus, staff members are encouraged to seek ongoing education and training. During 2003, the hospital system initiated the Nursing Lectureship Series, which is a forum for nurses to learn about current treatment modalities for specific types of metastatic disease, such as breast cancer.

In addition, these oncology nurses serve as a resource for nurses throughout the system who care for patients with cancer. Many staff members participate in the upstate chapter of the Oncology Nurses Society, which provides opportunities for hospital system nurses to network with other nurses in the region.

Oncology care can be an emotionally intense specialty requiring physicians, nurses, and other staff to work hand-in-hand with representatives of many disciplines throughout the system, such as Pastoral Care and Mental Health Services. The Outcomes Management Department, composed of social services and case managers, coordinates multidisciplinary discharge planning for patients and their families.

A Caregiver Support Group meets regularly to provide emotional and educational support for family members caring for cancer patients. The group meets in the home-like atmosphere of the Caregivers Room, adjacent to the inpatient unit, to help make the hospital stay more comfortable for family members.

Staff and leadership of the oncology unit have been moving toward a patient- and family-centered model of care delivery. Staff members recognize the importance to family and patients of realizing the full potential of each day. As a result, many innovative strategies are being introduced to complement the patients’ care and treatment. For example, as a part of the hospital’s pet therapy program, many patients have had visits from their pets, which has been a great morale booster.

Our staff believe that these strategies, as well as others being developed, will make oncology patients’ experiences more meaningful and will enhance the patients’ and families’ well-being.

Apheresis Services

Apheresis Services provides “in vivo” blood cell separation procedures for adult and pediatric outpatients and inpatients with hematologic, neuro-muscular, renal, rheumatologic, and auto-immune disorders. It focuses on prevention, early detection, active treatment with management, and follow-up care.

Apheresis can be a life-saving therapeutic method for treating neurology and hematology disorders. Emergent intervention can aid physicians administering chemotherapy or bone marrow therapy to patients.

Apheresis Services works collaboratively with outside agencies to provide therapies conducted for research purposes. In addition, it provides procedural protocol, patient management, and physician orders in collaboration with the referring physician and/or consulting hematologist. Inpatient services are offered at Greenville Memorial Hospital and may be administered bedside through mobile, state-of-the-art cell separators that are automated, efficient, and precise.

Specially trained registered nurses perform apheresis procedures under the direction of a medical director. Treatment is by physician referral and appointment.

Ambulatory Infusion Center (AIC)

The hospital system’s Ambulatory Infusion Center uses advanced technology and expert staff to deliver infusion therapy (up to a day in length) for adult outpatients. A variety of features enable the AIC to deliver high-quality care:

- An all-R.N., chemotherapy-certified nursing staff
- Support of the Cancer Center, where the AIC is located
- 10 treatment chairs
- Private patient rooms
- Access to resources at Greenville Memorial Hospital, including an on-site lab
- On-site pharmacist
- Staff social worker
Cancer Education Center
The Cancer Education Center provides upstate residents with complimentary materials about cancer to help broaden their knowledge and to involve them in care and treatment decisions. It is supported through grants, memorial contributions, and gifts. Internet access, printed matter, videos, and a resource directory of local support groups is available.

Community Outreach
The hospital system sponsored five community events during 2003:

- Relay for Life (with American Cancer Society)
- Moonlight and Magnolias (with American Cancer Society)
- Susan G. Komen Breast Cancer Foundation
- Tommy Mullinax Classic (with American Cancer Society)
- Marion Harris Classic (with American Cancer Society)

It also participated in several community activities:

- Cancer Survivor’s Day (with CancerCenters of the Carolinas)
- Community Advisory Council luncheons with Thomas Wagner, Ph.D., GHS Oncology Research Institute director
- News articles on Dr. Wagner’s research
- Newly formed South Carolina Cancer Alliance

Radiology Services
Radiology Services, provided by Greenville Radiology, serves the Cancer Center by providing comprehensive diagnostic tools in the form of radiography, CT scans, Magnetic Resonance Imaging (including breast and prostate), ultrasound, nuclear medicine, and mammography. All studies are interpreted by board-certified radiologists, and all images are electronically stored and instantly available to physicians.

As the largest program of its kind in the state, Radiology Services performs over 300,000 procedures a year. Radiologists participate in the consultative portion of the Oncology MDC and provide patients with the most advanced equipment and care, including ...  

- Chemoembolization
- Radiofrequency ablation
- Sentinel lymph node detection
- Diagnostic angiography
- Stereotactic breast biopsy
- Stereotactic mapping for neurosurgical procedures
- CT & Ultrasound-guided needle biopsy of tumors
- BEXXAR® antibody therapy
- Venous access

Fellowship-trained subspecialists are available in musculoskeletal, cardiac, chest, and neuro-radiology; pediatric, nuclear, and interventional radiology; and in body imaging.

Cancer Center Laboratory
The laboratory is located on the first floor of the Cancer Center and is an integral part of operations of the Cancer Center. Open from 7:30 a.m. until 4:30 p.m., the laboratory provides blood collection services and limited testing for patients.

Clinical laboratory technicians and technologists, along with a phlebotomist specially trained in pediatric and adult collection, staff the laboratory. Separate blood collection areas are available for children and for adults; the one for children includes a waiting room for their family members.

The laboratory is accredited by the College of American Pathologists. As part of the laboratories throughout the Greenville Hospital System University Medical Center, the staff of pathologists and other management professionals stand ready to assist and advise healthcare personnel.
Rehabilitation Services
The hospital system’s Roger C. Peace Rehabilitation Hospital (RCPRH) provides services for Cancer Center patients, many of whom face functional issues that delay discharge or present a significant degree of care for families. RCPRH specializes in assessing such problems and ultimately devising a discharge plan. It also prescribes appropriate equipment so that patients may dress themselves, walk, and enhance range of motion.

Staff members travel to the patient’s home to determine what changes need to be made to the dwelling to support a mobility-impaired patient. When a patient is too debilitated to administer his or her own care, RCPRH can teach caregivers how to manage tracheostomy concerns, feeding tubes, Foley catheters, and skin care before the loved one is discharged.

Outpatient services associated with cancer and cancer treatments include the following:

Physical Therapy. Treatment starts with a comprehensive evaluation and interview with the patient to determine problem areas, set goals, and establish treatment plans.

Occupational Therapy. Treatment focuses on upper-body strength, range of motion, and function. Retraining for activities of daily living and meeting adaptive equipment needs allow patients to regain function. Customized splints are also constructed.

Speech Therapy. Speech-language pathologists provide diagnostic testing, such as swallowing studies, and follow-up treatment for dysphagia. Swallowing problems are seen in patients with head and neck cancers and esophageal cancers. Voice therapy is available for patients after laryngectomy. Patients recovering from brain tumors may require cognitive/linguistic therapy and work on communication skills as well as treatment for dysphagia.

Lymphedema Program. Treatment includes lymphedema education, manual lymph drainage, compression bandaging, and compression garment fitting. Patients learn self-management skills for long-term control. Associated problems, such as strength deficits and severe tissue tightening, are also addressed.

Pastoral Care
Hospital chaplains have at least a Master of Divinity degree from an accredited theological seminary and one year of clinical Pastoral Education. Staff attempt to draw to fuller consciousness the patient’s attitudes, emotional investments, and values. Their interactions with patients explore holistic healthcare concerns as finding meaning in the face of a terminal illness; reconciling oneself to bodily limitations; exploring more meaningful relationships with others; and connecting to the universe beyond themselves.

Pharmacy
The Department of Pharmacy provides services to these areas:

- Ambulatory Infusion Center
- Pediatric Hematology/Oncology
- Gynecologic Oncology
- Greenville Memorial Hospital chemotherapy preparation

The department checks for proper dose calculation and prepares chemotherapy, antibiotics, and other drugs. It is responsible for dosing and following patients on vancomycin; preparing antiemetics and IV fluids (including immune globulin for Apheresis Services); and preparing and accounting for the paperwork required for protocol drugs.

Service to the Oncology Research Institute includes transferring cancer vaccines from test tubes to syringes for injection in patients to comply with FDA regulations.

Hospice
Hospice provides care for people who are no longer under treatment for cure to help them live more comfortably and independently at home. Its goal is to help relieve pain, fear, and loneliness, as well as to give support to the family before and after the patient’s death.

Begun in 1979, Medicare-certified Hospice is administered by a medical team of nurses, nursing assistants, a social worker, a chaplain, and trained volunteers who work under the guidance of the patient’s physician and the Hospice medical director of Greenville Hospital System University Medical Center. A hospice nurse is on call around the clock.
Cancer Center

Physician referrals to a cancer specialist at Greenville Hospital System University Medical Center can be made by calling these specialty areas:

- Main Number: 864-455-7070
- Administration: 864-455-5862
- Breast Oncology: 864-454-2224
- Gynecologic Oncology: 864-455-5520
- Medical and Radiation Oncology: 864-679-3900
- Oncology Multidisciplinary Center (MDC) for thoracic, neurologic, melanoma/sarcoma, gastrointestinal, and genitourinary oncology: 864-455-4968
- Orthopaedic Oncology: 864-455-6030
- Pediatric Hematology/Oncology: 864-455-8898
- Thoracic Oncology: 864-455-1200
- Education Center: 864-455-6234
- Ambulatory Infusion Center/Apheresis: 864-455-6743
- Clinical Research Unit: 864-679-3966

For more information on other medical staff members specializing in the diagnosis and treatment of cancer, please visit our Web site at www.ghs.org.