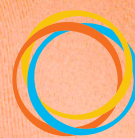


BROOKWOOD BAPTIST HEALTH

Oncology Program

ANNUAL REPORT 2014-2015



**Brookwood
Baptist
Health**[™]

Brookwood Baptist Medical Center

ONCOLOGY PROGRAM OVERVIEW 2014-2015

Brookwood Baptist Medical Center's oncology team continues to provide exceptional patient-centered care through the outstanding work of our physicians, nurses, therapists and support staff. Led by Allen Yeilding, M.D., our cancer care team is dedicated to helping patients and their family members to not only understand the diagnosis of cancer, but to ensure our patients have the tools and resources to conquer their disease physically and mentally.

We are proud to stand as one of the largest networks of highly trained oncologists in the state and encompass all aspects of cancer care including medical, GYN, surgical and radiation. This year, we were honored to add three new members to the group: Dr. Davika Das and Dr. Christopher Wang, both of whom are medical oncologists, and Dr. William Thompson, who specializes in surgical oncology. Our group of support staff serves as an incredibly valuable resource of our program and includes a dedicated oncology nurse navigator, a genetic counselor, chaplain and several chemotherapy and oncology-certified nurses who are focused on high quality, personalized and compassionate care for the patient and family members.

The outpatient setting of our Cancer Center and CyberKnife® facility provides patients with the latest in cancer fighting technology, coupled with a highly-trained group of radiation therapists, oncology-certified nurses, medical physicists and other supportive clinical team members. While we continuously strive to provide our patients with the most advanced level of care, our team is equally as focused on exercising compassion and understanding to ease the fears that naturally come with a cancer diagnosis. Our staff members on the two oncology inpatient units are highly motivated to create a compassionate environment in which to attend to the patient's emotional well-being in addition to executing the patient's treatment plan.

Last year, 1,142 patients received a new diagnosis of cancer at Brookwood Baptist Medical Center. Based on the cancer registry and the maintenance of our high data quality standards, the top five cancer cases this year include:

#1 Breast
297 diagnoses

#2 Lung
143 diagnoses

#3 Prostate
77 diagnoses

**#4 Kidney/
Renal Pelvis**
69 diagnoses

#5 Endometrial
56 diagnoses

Brookwood Baptist's weekly tumor conference, led by Fred Dumas, M.D., continues to promote the multidisciplinary approach to cancer treatment, allowing medical professionals to confer with one another to establish the best possible method of care and treatment options for each patient presented. We also remain dedicated to our community through educational programs for school kids, senior adults and employees in our workplace and other businesses. Also, T.O.U.C.H. support group is still an important part of our program and is available monthly for all our cancer survivors who would like to attend.

Many thanks to Brookwood Baptist Medical Center's administration, physicians, and staff who work relentlessly to become the preferred provider of cancer treatment for patients and their families.

Jenni F. Corbett, CMD, BSRT
Director of Cancer Services
Brookwood Baptist Cancer Care Center



ADVANCED TREATMENT AND TECHNOLOGY

SURGICAL ONCOLOGY SERVICES

Robotic-assisted surgical treatment for endometrial cancer is minimally invasive and allows for a more rapid recovery time. For patients who may have residual ovarian cancer after surgery, intraperitoneal chemotherapy is given, which has advantages over intravenous therapy. These advantages include higher drug concentrations and longer drug half-lives in the peritoneal cavity, meaning that the drugs remain active in the abdominal area longer.

- **Robotic Cancer Surgery** is a state-of-the-art, minimally invasive approach to gynecologic cancer surgery. This treatment utilizes the *da Vinci*® Surgical System to treat cervical cancer or perform hysterectomies.
- **CyberKnife**® is a non-invasive alternative to surgery for the treatment of cancerous and non-cancerous tumors. The treatment offers new hope to patients who have inoperable or surgically complex tumors, or who may be looking for a non-surgical option.

HEMATOLOGY/MEDICAL ONCOLOGY SERVICES

The Brookwood Baptist campus offers a unique setting of four hematology/medical oncology practices. The majority of physicians are board-certified, experienced, compassionate, caring, competitive and energetic. Patients are offered state-of-the-art care, tailored to established national guidelines, and have the option to participate in clinical trials. Our physicians utilize rapidly evolving new technology at the molecular or gene level, which is revolutionizing hematology and oncology practice and is the most significant breakthrough in healthcare since the development of antibiotics. The most significant breakthrough in health care since the development of antibiotics. Our physicians also work closely with many of the nation's academic centers, ready and willing to refer a patient as indicated for further evaluation and clinical trials.

RADIATION ONCOLOGY SERVICES

In the Cancer Center, radiation oncologists, therapists, oncology nurses and support staff are committed to providing personal, attentive care and advanced treatment options for the fight against cancer. Having the right tool is everything. We've also invested in the most advanced radiation treatments to offer our patients including:

- **Rapid Arc™ Radiotherapy Technology** delivers treatment two to eight times faster than others while increasing precision to minimize damage to healthy tissue — a winning combination for patient treatment and outcomes.
- **Intensity Modulated Radiation Therapy (IMRT)** uses pinpoint precision to deliver radiation, allowing physicians to spare healthy surrounding tissue.

- **Respiratory Gating Technology** synchronizes radiation beams with the patient's natural breathing cycle. This protects healthy tissue during radiation to tumors located in the chest and abdomen, where breathing can move the target by a centimeter or more.
- **Mammosite® (Partial Breast Radiation Treatment)** delivers radiation twice a day for five treatments. This unit delivers the radiation through a catheter into a balloon that has been surgically placed into the lumpectomy site.
- **External Beam Radiation Therapy** uses a Linear Accelerator to deliver high energy to the appropriate area in a series of short treatments, five days a week, over a six to eight week period.
- **High Dose Rate Brachytherapy** utilizes a special machine to deliver high intensity radiation with a single source of radioactive material through a series of catheters.
- **Image-Guided Radiation Therapy (IGRT)** provides high-resolution, three-dimensional images to pinpoint tumor sites, adjust patient positioning when necessary, and complete a treatment—all within the standard treatment time slot. This technology accounts for motion to ensure that the target is in the same position for every treatment session and enables clinicians to verify that treatments are completely in sync with the patient's breathing.
- **Prostate Seed Implants** are tiny radioactive seeds inserted directly into the prostate. The patient's body blocks most of the radiation, so minimal radiation precautions are needed.
- **Outpatient Chemotherapy and Infusion**



CyberKnife® is a non-invasive alternative to surgery for the treatment of cancerous and non-cancerous tumors.

CANCER COMMITTEE

The Cancer Committee at Brookwood Baptist Medical Center is composed of a multidisciplinary group of physicians and other healthcare professionals dedicated to ensuring that the highest quality of care and service is provided to our patients. Proudly accredited through the American College of Surgeons, our program is able to focus on developing a world class standard of excellence in oncology thanks to the hard work of our committee members and coordinators.

The committee meets quarterly to implement new programs, develop screening and prevention initiatives and to discuss quality improvements, data management, quality standards and community outreach. We are so thankful to all of our committee members who are devoted to exceeding our patient's expectations and keep the program's focus on improving the lives of cancer patients and the communities we serve.

CANCER COMMITTEE MEMBERS

CHAIRMAN

Dr. Allen Yeilding
Medical Oncology & Hematology

PHYSICIAN LIAISON

Dr. Monjri Shah
Gynecologic Oncology

TUMOR CONFERENCE COORDINATOR

Dr. Fred Dumas
Radiation Oncology

PHYSICIAN MEMBERS

Dr. Mack Barnes
Gynecologic Oncology

Dr. Brian Adler
Medical Oncology & Hematology

Dr. Khaleel Ashraf
Medical Oncology & Hematology

Dr. William DeVos
Pathology

Dr. Sandra Tincher
Radiation Oncology

Dr. Michael Littleton
General Surgery

Dr. Greg Jackson
Radiology

NON PHYSICIAN MEMBERS

Kathy Healy-Collier
Chief Operating Officer

Jenni Fisher-Corbett
Leadership/Director of Cancer Services

Tammy Pickering
Nurse Leadership/Director 7th Floor Oncology

Ellen Carmichael
Quality Coordinator

Tracy Flanagan
Registry Coordinator

Robin Davis
Genetic Counselor/Clinical Trials Coordinator

Karen Litwinic
Pharmacy

Kristina Wilburn
Marketing/Community Outreach Coordinator

Tracy Flanagan
Registry

Anna Lisa Weigel
American Cancer Society Representative

Elbon Fitzgerald
Chaplain

Suzy Columbus
Quality Alternate

Shannon Shumate
Nursing Leader, Women's Services

Lisa Morris, RN, MSN, CB-BN-Nurse Navigator
Nurse Navigator

PRIMARY SITE TABLE	TOTAL (%)	SEX		STAGE DISTRIBUTION			
		M	F	Stg I	Stg II	Stg III	Stg IV
XORAL CAVITY & PHARYNX	8 (0.7%)	7	1	0	1	2	2
XTongue	2 (0.2%)	1	1	0	1	0	0
XSalivary Glands	1 (0.1%)	1	0	0	0	0	1
Gum & Other Mouth	1 (0.1%)	1	0	0	0	0	0
Nasopharynx	1 (0.1%)	1	0	0	0	0	1
Tonsil	3 (0.3%)	3	0	0	0	2	0
DIGESTIVE SYSTEM	149 (12.9%)	85	64	25	31	34	29
Esophagus	9 (0.8%)	9	0	0	2	3	1
Stomach	5 (0.4%)	2	3	1	1	0	2
Small Intestine	10 (0.9%)	7	3	3	2	1	2
Colon Excluding Rectum	54 (4.7%)	28	26	11	13	14	9
Cecum	9	1	8	2	2	3	1
Appendix	3	1	2	1	2	0	0
Ascending Colon	12	10	2	3	2	3	3
Hepatic Flexure	1	1	0	0	1	0	0
Transverse Colon	4	3	1	1	1	1	1
Splenic Flexure	3	1	2	1	0	2	0
Descending Colon	2	1	1	1	0	0	1
Sigmoid Colon	12	6	6	2	4	4	1
Large Intestine, NOS	8	4	4	0	1	1	2
Rectum & Rectosigmoid	26 (2.3%)	19	7	6	5	7	3
Rectosigmoid Junction	6	4	2	1	3	1	1
Rectum	20	15	5	5	2	6	2
Anus, Anal Canal & Anorectum	5 (0.4%)	2	3	1	0	0	0
Liver & Intrahepatic Bile Duct	3 (0.3%)	2	1	1	0	0	0
Liver	1	1	0	1	0	0	0
Intrahepatic Bile Duct	2	1	1	0	0	0	0
Gallbladder	2 (0.2%)	1	1	0	0	0	0
Pancreas	31 (2.7%)	14	17	2	8	7	11
Retroperitoneum	3 (0.3%)	1	2	0	0	1	1
Peritoneum, Omentum & Mesentery	1 (0.1%)	0	1	0	0	1	0
RESPIRATORY SYSTEM	152 (13.2%)	76	76	38	12	24	49
Nose, Nasal Cavity & Middle Ear	2 (0.2%)	0	2	0	0	0	2
Larynx	5 (0.4%)	2	3	1	2	1	0
Lung & Bronchus	145 (12.6%)	74	71	37	10	23	47
BONES & JOINTS	2 (0.2%)	1	1	1	0	0	1
Bones & Joints	2 (0.2%)	1	1	1	0	0	1
SOFT TISSUE	3 (0.3%)	1	2	0	1	2	0
Soft Tissue (including Heart)	3 (0.3%)	1	2	0	1	2	0
SKIN EXCLUDING BASAL & SQUAMOUS	16 (1.4%)	15	1	4	1	0	1
Melanoma – Skin	15 (1.3%)	14	1	4	1	0	1
Other Non-Epithelial Skin	1 (0.1%)	1	0	0	0	0	0
BREAST	297 (25.8%)	3	294	102	55	24	9
Breast	297 (25.8%)	3	294	102	55	24	9
FEMALE GENITAL SYSTEM	132 (11.4%)	0	132	61	8	25	9
Cervix Uteri	24 (2.1%)	0	24	13	4	3	2
Corpus & Uterus, NOS	56 (4.9%)	0	56	39	0	8	4
Ovary	30 (2.6%)	0	30	6	3	13	2
Vagina	4 (0.3%)	0	4	0	0	1	1
Vulva	18 (1.6%)	0	18	3	1	0	0
MALE GENITAL SYSTEM	83 (7.2%)	83	0	23	34	3	1
Prostate	77 (6.7%)	77	0	19	33	3	1
Testis	6 (0.5%)	6	0	4	1	0	0
URINARY SYSTEM	124 (10.8%)	90	34	51	14	10	5
Urinary Bladder	50 (4.3%)	44	6	6	7	2	1
Kidney & Renal Pelvis	69 (6.0%)	44	25	45	7	7	4
Ureter	5 (0.4%)	2	3	0	0	1	0
EYE & ORBIT	2 (0.2%)	0	2	0	0	0	0
Eye & Orbit	2 (0.2%)	0	2	0	0	0	0
BRAIN & OTHER NERVOUS SYSTEM	58 (5.0%)	19	39	0	0	0	0
Brain	9 (0.8%)	4	5	0	0	0	0
Cranial Nerves Other Nervous System	49 (4.2%)	15	34	0	0	0	0
ENDOCRINE SYSTEM	44 (3.8%)	10	34	28	0	1	1
Thyroid	32 (2.8%)	4	28	28	0	1	1
Other Endocrine including Thymus	12 (1.0%)	6	6	0	0	0	0
LYMPHOMA	38 (3.3%)	22	16	7	9	1	7
Hodgkin Lymphoma	9 (0.8%)	4	5	2	3	1	2
Non-Hodgkin Lymphoma	29 (2.5%)	18	11	5	6	0	5
NHL - Nodal	22	14	8	2	5	0	5
NHL - Extranodal	7	4	3	3	1	0	0
MYELOMA	11 (1.0%)	4	7	0	0	0	0
Myeloma	11 (1.0%)	4	7	0	0	0	0
LEUKEMIA	17 (1.5%)	11	6	0	0	0	0
Lymphocytic Leukemia	4 (0.3%)	3	1	0	0	0	0
Acute Lymphocytic Leukemia	1	0	1	0	0	0	0
Chronic Lymphocytic Leukemia	2	2	0	0	0	0	0
Other Lymphocytic Leukemia	1	1	0	0	0	0	0
Myeloid & Monocytic Leukemia	12 (1.0%)	7	5	0	0	0	0
Acute Myeloid Leukemia	5	3	2	0	0	0	0
Chronic Myeloid Leukemia	7	4	3	0	0	0	0
Other Leukemia	1 (0.1%)	1	0	0	0	0	0
KAPOSI SARCOMA	1 (0.1%)	1	0	0	0	0	0
Kaposi Sarcoma	1 (0.1%)	1	0	0	0	0	0
MISCELLANEOUS	16 (1.4%)	9	7	0	0	0	0
Miscellaneous	16 (1.4%)	9	7	0	0	0	0
TOTAL	1,153	437	716	340	166	126	114

QUALITY OF CARE STUDY 2015

Evolution of Boost Volume: Comparison of pre & post breast seroma volume by CT scan and the impact of the radiation treatment volume

PURPOSE

To evaluate the utility of obtaining repeat scans of the lumpectomy site for planning of breast cancer after whole breast irradiation.

PATIENT POPULATION

All breast cancer patients treated by a single provider during calendar year 2013. Total of 34 patients treated with partial mastectomy and postoperative radiation to include the entire breast followed by a reduced field boost.

STUDY PLAN

Radiation Therapy planning was performed in the standard fashion. Patients were immobilized in the supine position with a vac-lok custom positioning device. CT was performed with 2.5mm slice thickness through the volume of interest. The scar and saroma were identified by the physician and dosimetrist and the volume calculated in cm3 calculated.

Upon completion of the whole breast irradiation (45-50.4 Gy), a repeat simulation was performed with the same geometric set up. Seroma was again contoured and volume determined.

Comparison is performed.

RESULTS:

- A total of 33 patients had both a pre-treatment and post-treatment CT scan to evaluate the target volume.
- On average, there was 44% reduction in the seroma volume seen after five to five and a half weeks of external beam radiation. Unfortunately, even small seromas are subject to significant change in size. The range of change is extreme, from 30% increase in seroma volume to an 82% decrease.

In conclusion, there is often a significant change in the apparent volume of post-lumpectomy seroma cavities. If this original volume is used as the target for a radiation boost, there can be substantial differences in the amount of tissue treated. Often, the original field will be more than adequate to treat the target, but in a minority of cases, the seroma can increase in volume, resulting in under treatment of the target tissue.

ANALYSIS

This analysis confirms the need for a reevaluation of the boost volume after whole breast irradiation.

It might be possible to use ultrasound techniques to evaluate the seroma and thus select patients who might benefit from and additional CT scan.



CyberKnife and Cancer Center Radiation Therapists

PATIENT CARE IMPROVEMENT 2015

Based on the evaluation of seroma volume study

PURPOSE

To improve boost volume radiation treatment coverage for breast cancer patients based on the results from the Seroma volume study which included data from 2014 patients.

PATIENT POPULATION

All breast patients from March 2015 to November 2015 who have received external beam radiation.

STUDY PLAN

Based on the findings from the Seroma study where 33 breast cancer patients were evaluated for seroma volume discrepancies from the beginning of their external beam irradiation to the completion, it was identified that seromas do change significantly in size during this treatment time which revealed the need for re-CT scanning after whole breast radiation treatments and before boost volume treatment begins.

Beginning in March of 2015, all breast cancer patients who were eligible for whole breast irradiation or currently under whole breast radiation treatment received a new scan upon the completion of their external beam treatments for reevaluation of their seroma volume.

RESULTS

Forty-eight patients were re-CT scanned after completion of external beam breast irradiation. Their seromas from this scan were contoured by the physician and measured during treatment planning to ensure the appropriate type and energy of radiation was used for the boost treatment.

ANALYSIS

This analysis confirms the need for re-CT scanning of the patient before their boost treatment begins. It is now considered our standard of care in the Cancer Center.



Cancer Center Nurses and OP Infusion

EARLY TESTING, DIAGNOSIS, SUPPORTIVE SERVICES

Our team of experts guides our patients and their families in a supportive environment through a scary cancer diagnosis. Team members include:

- Cancer Genetics Counselor
- Lung Cancer Screening Program
- Assessment and Testing for High-Risk Patients
- 3-D Digital Mammography Units, with Computer Aided Detection
- Ultrasound
- MRI, including Breast MRI
- Nurse Navigation and Survivorship Care
- Dedicated Chaplain

GENETIC COUNSELING & TESTING

Brookwood Baptist Medical Center offers genetic counseling and testing services to help identify patients who are at risk to develop certain types of hereditary cancer including breast, ovarian and colon. This information enables our physicians to make better, more informed decisions about the patient's health, before cancer has a chance to develop. Our genetic counselor works hand-in-hand with patients to evaluate family history, develop a personalized cancer risk assessment and when appropriate, provide genetic testing. Our team provides ongoing education and support to encourage early detection and help patients make informed decisions about their health.

The types of genetic services provided are:

- Cancer risk assessment based on personal risk factors and family history
- Genetic counseling and testing
- Personalized education and cancer prevention planning
- Navigation support and referrals to provide seamless access to physician specialists and other hospital resources



“Genetic counseling is the evaluation of a patient’s personal and family medical history for features that could suggest a hereditary cancer syndrome or other genetic predisposition. This process can be beneficial to both patients and their physicians. As the genetic counselor, I assist physicians by ordering genetic tests which can help confirm a patient’s diagnosis as well as determine the most appropriate medical management for that individual. I spend a lot of time with patients to ensure they understand the risks associated with their condition and are prepared for the complex psychological, social, and financial effects that their disease may have for themselves and their families.”

Robin Davis
Genetic Counselor

For more information on genetic counseling at Brookwood Baptist Medical Center, call Robin Davis, genetic counselor, at 205.877.5298.

NURSE NAVIGATION SERVICES

In order to continually provide the best quality care for our cancer patients, newly diagnosed and survivors, Brookwood Baptist Medical Center is proud to have a full-time nurse navigator on staff.

The nurse navigator program is designed to help cancer patients navigate the maze of options and frequent questions related to their diagnosis. This role is designed to complement the services provided by the physician.

The nurse navigator's role is to:

- Serve as a liaison to patients, physicians, and other hospital departments.
- Promote interdisciplinary collaboration and teamwork to achieve optimal clinical and resource outcomes within effective time frames.
- Be responsible for on-call tasks for patient access.
- Coordinate appointments with providers.
- Support the patient and family with the psychological and psychosocial stresses of being diagnosed with cancer and the treatment process.
- Follow up with patients at regular intervals prior, during and after treatment as defined.
- Provide education to hospital staff and physician offices pertaining to oncology services and programs as needed such as community outreach programs.
- Work with patients utilizing services through the Cancer Care Center.



“As the nurse navigator at Brookwood Baptist Medical Center, my role is to assist patients with navigating the health care system related to cancer care. I am a registered nurse and certified nurse navigator working in the Cancer Care Center, serving as a patient advocate, assisting patients in overcoming barriers to treatments, financial matters, transportation, communicating with healthcare providers, coordinating appointments, and referral to support programs and resources. My role additionally includes providing education and emotional support for patients as well as their family members, and also serving as a liaison between the patient and various healthcare providers. I will keep in contact with patients while they are receiving care and will track their progress.”

Lisa Morris, RN, MSN, CB-BN-Nurse Navigator
Brookwood Baptist Medical Center

For more information about nurse navigation at Brookwood Baptist Medical Center, contact Lisa Morris at (205) 877-2208 or at lisah.morris@tenethealth.com

COMMUNITY OUTREACH

MARCH

- Colon Cancer Awareness through various community outreach opportunities including the inflatable walk-through colon on Brookwood campus and a presence at Birmingham's Rumpshakers 5K event

APRIL

- Ask the Doctor segment on FOX6 News to promote lung cancer screenings with Dr. Russ Ronson
- Participation in and sponsor of the American Cancer Society's Relay for Life in Homewood

MAY

- Participation in and sponsor of the Norma Livingston's Motherwalk

AUGUST

- Community Education on cancer screenings at Hoover Senior Center with Lisa Morris

SEPTEMBER

- Ask the Doctor segment on FOX6 News to promote Ovarian Cancer Awareness with Dr. Monjri Shah
- Participation in and sponsor of the Laura Crandall Brown's Ovarian Cancer Foundation Head over Teal 5k

OCTOBER

- Ask the Doctor segment on FOX6 News to promote Breast Cancer Awareness Month with Dr. William Thompson
- Birmingham Parent Magazine article on Breast Cancer Awareness by Dr. William Thompson
- Ask the Doctor segment on FOX6 News to discuss breast cancer prevention with Dr. Marie Pittman
- Participation in and sponsor of Susan G. Komen's Race for the Cure
- Pink Heals firetruck visit to Brookwood campus

NOVEMBER

- Ask the Doctor segment on FOX6 News to promote lung cancer screenings & smoking cessation with Dr. Miachel Honan
- Community Education on lung cancer screenings at Town Village with Sandra Gilley, MD



Inflatable colon raises awareness



Pink fire truck delivers hope for breast cancer patients



2015 Rumpshakers Team



Oncology Inpt Unit 7 main and pink firemen

DIRECTORY

ONCOLOGY SERVICES

Brookwood Baptist Medical Center
205.877.100

Brookwood Baptist Cancer Care Center
208.877.2273

Jenni Fisher
Director of Cancer Services
205.877.1094

Genetic Counseling & Testing
205.877.5298

Inpatient Oncology Unit
205.877.1700

Nurse Navigation Services
205.877.2208

Nutritional Support/Oncology Dietician
205.877.1033

Oncology Chaplain/Counselor
205.877.1969

Outpatient Medical Oncology
205.877.2256

Physician Referral
205.877.8800

CANCER SUPPORT GROUPS

GYN CanSurvive
For women with gynecological cancers
205.934.7509 | cansurvivesupportgroup.org

T.O.U.C.H
(Today Our Understanding of Cancer is Hope)
For patients and loved ones with any type of cancer
205.877.1969

Look Good, Feel Better
Free class on makeup application and hair care during cancer treatment
1.800.ACS.2345 | cancer.org/treatment/supportprogramsservices

Man to Man
For men with prostate cancer
1.800.ACS.2345 | cancer.org/treatment/supportprogramsservices

Reach to Recovery
Information on exercises for breast cancer surgery recovery, including range of motion exercises surgical arm
1.800.ACS.2345 | cancer.org/treatment/supportprogramsservices



Brookwood Baptist Medical Center