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WellStar Cancer Program

MISSION
To offer the residents of Georgia a network of integrated, accessible, multi-disciplinary, state-of-the-art, high-quality and compassionate cancer care.

VISION
To be the premiere Cancer Program in Northwest Georgia offering state-of-the-art equipment and facilities, comprehensive services, and exceptional care. The program is a fully integrated network including all aspects of WellStar Health System’s Cancer Continuum of Care.
From the Chairman

During 2012, the WellStar Cancer Program continued efforts to comply with the standards of the American College of Surgeons’ Commission on Cancer in order to provide an integrated network of cancer treatment and preventive services.

The program accomplished many goals, including the automatic ordering of the molecular markers of EGFR mutation analysis and ALK rearrangement by FISH in patients with metastatic non-small cell/non-squamous cell lung carcinoma and the automatic ordering of immunohistochemical markers for mismatch repair proteins in patients 60 years of age or younger who are diagnosed with colorectal adenocarcinoma.

The components of the Cancer Program continue to strive for improvement. The radiation therapy program at WellStar Kennestone hospital upgraded equipment and software to provide world-class treatment options. Many of the oncology nurses are working to obtain Oncology Certified Nurse certification. WellStar continues to offer a community lung cancer screening program, one of the first in Georgia. The STAT (Specialty Teams and Treatment) Cancer Clinic allows immediate access to specialty care to increase survivability and quality of care. The Community Outreach Program provides ongoing education, screening and support for the community. In 2012, Genetic Counseling expanded services to meet the needs of the WellStar Cancer Network, adding services at WellStar Cobb Hospital. The Oncology Registered Dietitian service promotes individualized care to cancer patients.

The Cancer Data Center is an integral part of the WellStar Cancer Program, supplying many vital services including abstracting data from WellStar cancer cases, performing lifetime patient follow-up and giving support for the many cancer conferences at WellStar Kennestone and Cobb hospitals. In 2012, WellStar accessioned 3,306 newly diagnosed cancer cases in the Cancer Data Registry, which represented approximately 7.7% of the estimated total new cases in Georgia.

In 2013, we will continue to prepare for the upcoming survey by the American College of Surgeons’ Commission on Cancer.

I appreciate the efforts of all the members of the WellStar Cancer Program who work to provide exceptional care to our patients.

Best regards,

Marla Franks, M.D.
Chairman
WellStar Cancer Committee
2012 Goals and Accomplishments

Clinical Goal
All patients with a diagnosis of metastatic non-small cell/non-squamous cell lung carcinoma within WellStar Health System will receive testing for EGFR mutation analysis and ALK rearrangement by FISH.

This goal was accomplished by adding an automatic trigger to lung cancer synoptic path reports.

Quality Improvements
All patients with a diagnosis of colorectal cancer at age 60 or younger within WellStar will receive immunohistochemistry staining of their tumor specimen including MLH1, MSH2, MSH6, and PMS2.

This goal was accomplished by performing a monthly analysis to ensure all colorectal patients who met the criteria were being tested, thus resulting in policy change.
RADIATION THERAPY
WellStar Kennestone Hospital has a state-of-the-art Radiation Therapy Center that treated 1,165 patients in 2010, 1,196 in 2011 and 1,051 in 2012. The top disease sites treated in 2010 were (in order) breast, head & neck, lung, prostate, and brain; 2011 were (in order) breast, lung, brain, head & neck, and prostate. In 2012 these were (in order) breast, lung, brain, prostate & head and neck.

2010-2012 Radiation Cases (Top 5 Sites)

A major addition in 2012 was replacing our eight-year-old CT scan simulator with a new scanner. The older scanner had a downtime of 30 hours in CY 2010 and did not have ability to scan 3mm cut scan for our CyberKnife patients. Replacing the old scanner significantly reduces downtime and gives the ability to scan CyberKnife patients without sending them to another imaging facility. Additionally the CT scan simulator pinpoints tumors to be treated with accuracy. Other services at the center include a state-of-the-art digital conventional simulator to complete the planning process where patients are marked for their initial treatments along with High Dose Rate Brachytherapy. This utilizes radioactive sources that can be placed in catheters within the patient's body for treatment.

Another vast improvement was a software/hardware upgrade to our CyberKnife system. This upgrade included Lung Optimized Treatment and Xsight Prone Spine Option.
NON-INVASIVE LUNG SBRT

- Option to offer fiducial-less treatments
- Uses lung tumor itself as a landmark to guide beam targeting
- Simulation feature allows us to determine the tracking method

XSIGHT SPINE PRONE TREATMENT

- Combines Xsight spine tracking with Synchrony motion tracking to targets near the spine.
- Treating the patient in a prone position reduces the monitor units which in turn reduces dose to surrounding organs and makes treatments faster.

In addition to CyberKnife, there are two other linear accelerators including a third vault for future installation of an additional linear accelerator.

The radiation team consists of well-trained personnel including board-certified radiation oncologists, certified radiation therapists, specially trained oncology registered nurses, physicists, dosimetrist, a registered dietician, and other support personnel.

CYBERKNIFE

WellStar Kennestone Hospital is home to Georgia’s first CyberKnife Robotic Linear Accelerator. The CyberKnife uses state-of-the-art computer software, a robotic arm, and a miniature linear accelerator to deliver large doses of radiation in a pencil thin beam to these hard to reach tumors. These can be cancerous as well as non-cancerous tumors. The CyberKnife technology may be a treatment option for patients who are not candidates for conventional surgery, those who have had prior radiation to an area, or for those with tumors adjacent to critical structures.

The CyberKnife team includes radiation oncologists, surgeons, nurses, physicists, radiation therapists, and a patient navigator who will help each patient through the pre-treatment as well as post-treatment phases.

2010-2012
Cyberknife Cases

![Graph showing Cyberknife Cases from 2010 to 2012]
ONCOLOGY NURSING
WellStar has three outpatient infusion centers that provide specialized care for the oncology patient. There are approximately 16 RNs, five of whom have the Oncology Certified Nurse (OCN) certification. Of the two dedicated inpatient oncology nursing units, there are seven nurses who are OCN certified. Radiation Oncology has three OCN nurses. Cancer Support Services has three Oncology Certified Nurses. All RNs administering chemotherapy have completed the ONS Chemotherapy/Biotherapy Course and an annual competency validation exam and/or check off.

EDUCATION
During the past year, there were monthly educational opportunities for all WellStar oncology nurses, including: Sepsis, Palliative Care/Comfort Care, Central Line Care, Safe Handling of Chemotherapy, Extravasation of Antineoplastic and Code Carts. Two chemotherapy/biotherapy courses and an OCN review course were also given. "Cancer and the Older Adult" was offered twice in 2012

CLINICAL RESEARCH
The International Early Lung Cancer Action Program (I-ELCAP), which involves the use of low-dose CT scans to screen individuals at high risk for lung cancer, continued to experience growth and success at WellStar Health System. In 2010, the National Lung Cancer Screening Trial (NLST) proved that low-dose CT screening is effective in reducing mortality from lung cancer in high risk patients. This is done by finding early stage lung cancer before clinical signs or symptoms become evident. When found early, these cancers can be more easily treated with curative outcomes, unlike advanced stage lung cancer which currently has no cure. WellStar was a leading investigative site in the I-ELCAP trial and successfully enrolled 598 participants, detecting 12 lung cancers. As a regional leader in lung cancer screening, WellStar closed the I-ELCAP trial in October 2011 and sought to broaden efforts to promote early detection as part of a comprehensive community lung cancer screening program. WellStar was one of the first hospital systems in the Georgia to offer a community lung cancer screening program outside of a clinical trial.

WellStar continues active follow up for patients enrolled in NCI sponsored clinical trials. In addition, pathology trials, radiation oncology trials, and affiliated physician sponsored trials contributed to the overall success of the cancer research program.

2012 Total Clinical Trial Accruals

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening Trials</td>
<td>226</td>
</tr>
<tr>
<td>Treatment Trials</td>
<td>175</td>
</tr>
<tr>
<td><strong>Total Number of Patients Accrued to Clinical Trials</strong></td>
<td><strong>401</strong></td>
</tr>
<tr>
<td>Analytic Caseload 2011</td>
<td>3240</td>
</tr>
<tr>
<td><strong>Accrual % of Analytic Caseload</strong></td>
<td><strong>12%</strong></td>
</tr>
</tbody>
</table>
WELLSTAR STAT CANCER CLINIC

A multidisciplinary team of medical specialists, working together on each patient case, are the foundation of our Specialty Teams and Treatment (STAT) Cancer Clinic, focusing on thoracic cancers. The STAT Cancer Clinic is patient-centric, using an integrated, collaborative, evidence-based medical practice model. Patients can see the entire STAT team on the same day to establish the right treatment, rather than scheduling at each office individually. The team develops a treatment plan resulting in a groundbreaking reduction in wait time that allows treatment to begin in days, not weeks. This allows immediate access to specialty care and can result in increased survivability and quality of care.

Patients are usually referred to the STAT Cancer Clinic by their Primary Care Physician, Pulmonologist, Medical Oncologist, or self referral and once here, receive comprehensive care from the team of medical specialists. This team is comprised of the following: Thoracic Surgeon, Medical Oncologist, Radiation Oncologist, Pulmonologist, Physician Assistant, Nurse Navigator and a Dietitian.

Since the inception of the STAT Cancer Clinic in 2005, the number of visits have steadily increased.

**2012 STAT Cancer Clinic**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Patient Visits</td>
<td>295</td>
</tr>
<tr>
<td>Follow-up Visits</td>
<td>243</td>
</tr>
<tr>
<td>Total Number of Visits</td>
<td>538</td>
</tr>
</tbody>
</table>

**2004-2008 Lung Cancer Survival Compared to NCDB**

WellStar's survival rates for lung cancer are higher than the national average, as demonstrated above. We believe this is due to our comprehensive lung screening and STAT Cancer Clinic programs.
COMMUNITY OUTREACH
The WellStar Community Outreach program provides community members with:

- Educational offerings that present information about cancer prevention and wellness. They reached more than 500 people in business, education, social, and service organizations.
- Screening opportunities to detect cancers at an early stage. In 2012, we offered screening for prostate cancer and computerized risk assessment for breast cancer. Through a grant from Susan G. Komen, we were also able to provide mammograms for women with no insurance.
- Support for those who have been diagnosed with cancer and those who care about them. We are expanding our support services to help people better cope with their diagnosis, treatment and recovery. We continue to provide an American Cancer Society Cancer Resource Kiosk in our Cancer Center. Manned by volunteers, the kiosk has information about support services available from the American Cancer Society as well as those offered by WellStar.

During Breast Cancer Awareness Month, we provided programs at all our facilities, including a fashion show and educational program in partnership with Belk at Arbor Place Mall in Douglasville and a “Paint the Mall Pink” event with educational activities and a fashion show with breast cancer survivor models. In Douglasville, we hosted a luncheon for breast cancer survivors and their caregivers.

We continue to be a major sponsor of American Cancer Society events and have a member of the local staff on our Cancer Committee. We are the Presenting Sponsor for Relay for Life, the Women’s Golf Tournament, and their Gala.

In January, 2012, WellStar increased our commitment to the health of our community by providing totally tobacco-free environments on all WellStar properties. We continue to provide free tobacco cessation programs for community organizations as well as for our own employees and their families.

GENETIC COUNSELING
During 2012, our genetic risk assessment program was able to further expand our services to meet the needs of our cancer network. After completing an assessment of patient access to services, we determined a need to add additional services at our Cobb Hospital location. Services began at this site in October of 2012. With this additional site, genetic counseling services are now available at three locations within our service area. After evaluating a recommendation from the Center for Disease Control (CDC), WellStar also implemented a colorectal tumor screening program in January 2012. Based on national recommendations, WellStar began to perform pathological screening of all colorectal cancers diagnosed at age 60
or younger for Lynch syndrome, the most common cause of hereditary colon cancer. We also had a record 871 patient appointments. This again makes us one of the busiest cancer genetics programs in the Southeast region. We identified 31 patients with a hereditary cancer syndrome and found that many more patients were in need of aggressive screening and risk reduction options.

NUTRITION THERAPY
The Oncology Registered Dietitian provides nutrition therapy through individualized counseling and education, personalized meal plans, and cancer-specific programs and classes. She specializes in nutrition support and is responsible for the education and management of patients requiring such nutrition. She participates in the multidisciplinary care of patients through cancer support services and the weekly STAT Cancer Clinic.

Physicians, support staff, and caregivers are encouraged to refer any patient with the following:

- Malnourished or suspected malnutrition
- >5% wt loss within 1 month or >10% wt loss in 6 months
- BMI <18 or BMI >25
- Significant decrease in intake
- Presence of at least one nutrition impact symptom:
  - No appetite
  - Diarrhea
  - Nausea
  - Early satiety
  - Constipation
  - Fatigue
  - Mouth sores
  - Dental problems
  - Taste changes
  - Dysphagia
  - Dry mouth
  - Vomiting
- Functional deficits or recent deterioration in functional status
- Loss of subcutaneous fat and/or muscle mass and or/muscle tone on palpation
- Currently receiving or in need of nutrition support (oral, enteral, or parenteral)
- Diagnosis expected to significantly increase patient nutrition needs or side effects
- Anyone else considered to be at high nutritional risk

2012 Total Referrals

<table>
<thead>
<tr>
<th>Referrals from Physicians</th>
<th>209</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals from Support Staff</td>
<td>119</td>
</tr>
<tr>
<td>Self-referrals</td>
<td>14</td>
</tr>
</tbody>
</table>
CANCER DATA CENTER REPORT

At WellStar, the Cancer Data Center is designed and staffed to collect, manage, analyze and report information on persons with cancer who have been diagnosed and/or treated through any of the five facilities: Cobb, Douglas, Kennestone, Paulding or Windy Hill hospitals. The staff utilizes a specialized data system to allow for the exchange of data between the National Cancer Data Base (NCDB) and the Georgia Center for Cancer Statistics (GCCS), as required by the American College of Surgeons’ (ACoS) Commission on Cancer (CoC) and Georgia state law.

The data is used to track cancer incidence, cancer stage of disease and treatment, outcome analysis and lifetime follow-up. Additionally, information is available for use by the medical staff and other healthcare professionals for special studies, reports and research. Moving forward, this information will become an integral part for future cancer care planning by identifying areas for potential cancer research and cancer program strategic planning.

Functions for the registry staff include, but are not limited to, the following:

- Weekly cancer conferences at the Kennestone and Cobb campuses
- Support and coordination of site-specific conferences for breast, thoracic and GI by monitoring and documenting the use of AJCC staging or other approved staging schemes and the use of national treatment guidelines in discussion
- Abstraction of 4,090 cases (analytic, non-analytic and reportable to state by agreement)
- Lifetime follow-up for over 27,500 patients maintaining greater than 90% five-year follow-up rate
- Support and coordination of Cancer Committee
- Physician and peer quality review of registry data
- Participation as beta-site for Rapid Quality Reporting System (RQRS)
- NCDB and State submissions
- Continued professional education

Our staff is encouraged to be active members of the National Cancer Registrar’s Association (NCRA) and the Georgia Tumor Registrar’s Association (GATRA). WellStar’s Cancer Program continually supports the registrar’s continued education by providing funding for various staff members to national and state meetings to stay abreast of the latest changes in the registry field.
CANCER CONFERENCES/TUMOR BOARDS

Cancer conferences have become an integral part of the Cancer Program, offering general cancer conferences and site-specific conferences for Breast, Thoracic, and GI. These conferences are tailored to generate multidisciplinary discussion with the goal of providing the most appropriate cancer care based on nationally recognized standards of care.

All conferences are available to physician and support staff at various hospital locations. Each conference includes medical and radiation oncology, surgery, radiology, and pathology. Other support services, including genetic counseling and nutrition, are encouraged to attend.

In 2012, 818 cases were presented at 182 cancer conferences representing approximately 27% of the total analytic cancer cases accessioned into the cancer registry.

**2010-2012 Cancer Conference Presentations**
CANCER INCIDENCE

According to the American Cancer Society (ACS) Cancer Facts and Figures, in 2012 an estimated 1,638,910 new cancer cases were expected in the United States resulting in 577,190 deaths. This represents the second-most common cause of death in the United States.

Table 1 demonstrates a consistent growth pattern of newly diagnosed cancer cases over the past few years. In 2012, WellStar accessioned 3,306 newly diagnosed cancer cases into the registry which contributed to approximately 7.7% of the estimated total new cases in Georgia.

Table 1:
2008-2012 Growth Trend
All Cases by Classification

Table 2:
2008-2012 Growth Trend
Top 5 Analytic Sites

The top sites have remained the same over past five years reflecting growth for breast, lung and prostate. Bladder and colon cases have remained relatively stable.
WellStar Cancer Program
Quality Initiatives

INTRODUCTION
We believe that some patients who meet NCCN guidelines for genetic testing for hereditary breast and ovarian cancer within WellStar are not receiving a referral to genetics.

OBJECTIVE
A review was performed of all pathology of patients with breast cancer diagnosed at age 45 or younger and all patients with an ovarian cancer diagnosis to determine if these patients were offered a referral to genetics.

FINDINGS
37% of patients in the study period who met criteria were not referred to genetics. Of these patients, 53% were seen at one of our hospitals that did not have an on-site genetic counseling presence.

IMPROVEMENT FOR PATIENTS
WellStar opened a satellite clinic at Cobb Hospital to increase awareness of the program and referrals.