Erlanger Health System
Evidence-Based Comprehensive Cancer Care

Public Reporting of Outcomes
2014 Annual Cancer Report
2013 Statistical Data
On behalf of the Cancer Program at the Erlanger Health System, the Cancer Committee is pleased to present the 2014 Annual Report. The Erlanger Health System is accredited by the American College of Surgeons' (ACOS) Commission on Cancer (COC) as an Academic Comprehensive Cancer Program. This accreditation and the required standards we follow demonstrate our commitment to provide our cancer patients and their families with the best cancer care and support possible.

Our Healthcare Mission:
To improve the health of the people we touch.
Adult Oncology

The Erlanger Health System has been accredited by the American College of Surgeons’ (ACoS) Commission on Cancer (CoC) as a Academic Comprehensive Cancer Program since 1981. This accreditation is granted only to facilities that voluntarily commit to provide the best in cancer diagnosis and treatment, and comply with the established CoC standards. Each cancer program must undergo a rigorous evaluation and review of its performance and compliance with the CoC standards. To maintain accreditation, facilities with accredited cancer programs must undergo an on-site review every 3 years.

The Accreditations Program is concerned with prevention, early diagnosis, pretreatment evaluation, staging, optimal treatment and rehabilitation, surveillance for recurrent disease, support services, and end-of-life care.

Obtaining care from a CoC-accredited cancer program ensures that one will receive the following:

- Quality care close to home
- Comprehensive care offering a range of state-of-the-art services and equipment
- A multi-disciplinary, team approach to coordinate the best cancer treatment options available, utilizing national treatment guidelines National Comprehensive Cancer Network (NCCN)
- Access to cancer related information, education and support
- A cancer registry that collects data on cancer type, stage, treatment results and offers lifelong patient follow up
- Ongoing monitoring and improvement of care
- Information about clinical trials and new treatment options

Five key elements to the success of a Commission on Cancer accredited cancer program:

- The clinical services provide state-of-the-art pretreatment evaluation, staging, treatment, and clinical follow-up for cancer patients seen at the facility for primary, secondary, tertiary, or end-of-life care.
- The cancer committee/leadership body leads the program through setting goals, monitoring activity, and evaluating patient outcomes and improving care.
- The cancer conferences provide a forum for patient consultation and contribute to physician education.
- The quality improvement program is the mechanism for evaluating and improving patient outcomes.
- The cancer registry and database is the basis for monitoring the quality of care.

Recognizing that cancer is a complex group of diseases, the CoC’s cancer program standards promote pre-treatment consultation among surgeons, medical and radiation oncologists, diagnostic radiologists, pathologists, and other cancer specialties. This multi-disciplinary cooperation results in improved patient care.
Pediatric Oncology

The Center for Childhood and Blood Disorders at Children’s Hospital at Erlanger is an accredited full member of the Children’s Oncology Group (COG), a cancer cooperative group that develops and coordinates cancer clinical research trials conducted at 238 member institutions. These institutions include cancer centers from all major universities and teaching hospitals throughout the United States, Australia, Canada and Europe. The trials at each institution are centrally monitored, and the study results are published in peer reviewed scientific journals.

Dedicated physicians and nurses treat all children and adolescent patients in our region and then report their results to an operations center. This data is reviewed and shared with all the medical experts in the network.

At the COG cancer centers, patients with the same cancer diagnosis are treated exactly the same by following detailed guidelines called protocols. By comparing all the results, the COG answers important medical and scientific questions faster than researchers working alone. Children treated at these centers have better outcomes and better survival rates.

Children’s Hospital at Erlanger is the region’s only Comprehensive Childhood Cancer and Blood Disorder Center and serves patients from Tennessee, Alabama, Georgia and North Carolina. Over ninety-five percent of the children diagnosed with cancer in our region receive their treatment at Children’s Hospital at Erlanger, and there are 40-50 new cases of childhood cancer diagnosed annually. Most children treated for cancer participate in research studies locally.

Multi-disciplinary care is available with skilled Pediatric-focused services in: cardiology, endocrinology, gastroenterology, genetics, infectious diseases, neurology, radiation therapy, surgery, and the Intensive Care Unit.

The following cancers are treated at Children’s Hospital at Erlanger:

- Acute Lymphoblastic Leukemia
- Acute Myelogenous Leukemia
- Brain Tumors
- Ewing Sarcoma
- Germ Cell Tumors
- Hepatoblastoma
- Hodgkin’s Lymphoma
- Langerhans Cell Histiocytosis
- Neuroblastoma
- Non-Hodgkin’s Lymphoma
- Osteosarcoma
- Retinoblastoma
- Rhabdomyosarcoma
- Wilm’s Tumor

Other services include:

- Cancer Survivorship Program
- Child Life Services
- Kids Cancer Camps
- Websites & Books
2014 Cancer Activities

Erlanger’s history of treating cancer dates back to 1923. As the diagnosis and treatment of cancer has evolved, so has the facility. Today with its state-of-the-art treatment methods for children and adults, partnership with UT College of Medicine Chattanooga, and outstanding medical staff, the Erlanger Cancer Center is recognized among the most advanced in the field.


In 2014, the Cancer Committee provided guidance in a number of cancer-related activities including:

- Continued American Cancer Society collaborations:
  - Look Good, Feel Better
  - Hotel/Hospitality Program
  - Reach to Recovery
  - Road to Recovery
- Continued physician education through cancer conferences (general, gynecological, pediatric focused, genitourinary, and lung)
- Expansion of clinical trials and studies (adult and pediatric)
- Expansion of services in the Radiation Oncology Department
- Expansion of community education/outreach programs:
  - Breast Health Outreach Program
  - Health Fairs
  - Men Too (Prostate Support Group)
- Implemented Cancer Resource and Survivorship Center
- Improvements of Cancer Registry data collection and input
- Provision of data for special research studies
- Participation in community outreach events including:
  - Principal Sponsor of the Annual Prostate Walk
  - Sponsor for the Susan G. Komen Race for the Cure
  - Participation in the ACS 24-hour Relay for Life
  - Cancer Related Lectures

The Cancer Committee coordinates and facilitates the programs and services offered by the cancer program. It develops and evaluates annual clinical, programmatic, quality improvement and community outreach goals; promotes a coordinated and multi-disciplinary approach to patient management; ensures that educational cancer conferences cover all the major cancer sites and related issues; promotes clinical research; supervises the cancer registry and ensures accurate and timely abstracting and follow-up reporting; and develops community education and outreach programs.

Larry Schlabach, M.D.
Cancer Committee Chairman
2014 Cancer Committee Members

Physician Members

Larry Schlabach, M.D.
Medical Oncology
*Cancer Committee Chairman

Blaise Baxter, M.D.
Interventional Radiology

Dr. Stephen Depasquale, M.D.
Gynecologic Oncology, Section Chief

Jeffrey Gchter, M.D.
Radiation Oncology, Section Chief

Richard Hessler, M.D.
Chief of Pathology
*Quality of Registry Data Coordinator

Frank Kimsey, M.D.
Radiation Oncology
*Cancer Conference Coordinator

Daniel J. Stanley, M.D.
Colorectal Surgical Oncology

Non-Physician Members

Tanner Goodrich, MHA
Oncology Services Line Administrator

Janet Kramer-Mai, RN, OCN
Cancer Support Services Manager

Michelle McNabb, RN
Oncology Educator

Jill Metcalf, CCRP
Sr. Research Coordinator

Claire Overmyer, MA, CCC-SLP
Speech Therapy

Debbie Shepherd, RN, BSN
Corporate Preparedness & Safety Officer
Quality and Regulatory Coordinator

Madison Thomason, MS, CGC
Genetics

Kim Wicks, CTR, CCSP
Oncology Data Management Coordinator
Committee Report/Goals

2014 Cancer Committee Report

The members of the cancer committee meet quarterly each year to ensure that administrative responsibilities related to the cancer program leadership are carried out. These annual responsibilities include but are not limited to:

- Appointment of four program coordinators
  1. Cancer conference
  2. Quality of cancer registry data
  3. Quality improvement
  4. Community outreach
  5. Clinical research
  6. Psychosocial services
- Development and evaluation of one clinical and one programmatic goal
- Establishment of cancer conference frequency and format
- Establishment of the multidisciplinary attendance requirement and attendance rate for cancer conferences
- Review of cancer conference activity to ensure compliance with the American College of Surgeons’ (ACOS) standards.
- Promote clinical trials and research
- Monitor quality management and improvement through completion of studies that focus on measuring quality, access to care, and treatment outcomes
- Perform quality control reviews of cancer registry data

2014 Cancer Committee Goals

Clinical Goal: GU clinic development (site specific tumor conference, navigator, education etc.)

Programmatic Goal: develop an inhouse pharmacy assistance and recovery program for outpatient services

Cancer Program Practice Profile Reports (CP³R)

The Cancer Committee monitors and ensures that patients treated at the Erlanger Health System receive care according to nationally accepted measures. The Commission on Cancer measures compliance with the current CoC quality reporting tools: the Cancer Program Practice Profile Reports. We are proud that our program is exceeding or meeting all of the required performance expectations of the Commission on Cancer.
Participating Physicians

2014 Participating Cancer Program Physicians and Specialty Services

Colon & Rectal Surgery
Shauna Lorenzo-Rivero, M.D.
Richard Moore, M.D.
Eric Nelson, M.D.
J. Daniel Stanley, M.D.

Gastroenterology
Arslan Kahloon, M.D.
Specializes in Endoscopic Retrograde Cholangiopancreatogram (ERCP)
Steven Kessler, M.D.
Specializes in Endoscopic Retrograde Cholangiopancreatogram (ERCP)
Louis Lambiase, M.D.
Specializes in Endoscopic Ultrasound (EUS) & Retrograde Cholangiopancreatogram (ERCP)
Hemchand Ramberan, M.D.
Specializes in Endoscopic Retrograde Cholangiopancreatogram (ERCP)
Laurie-Anne Swaby, M.D.
Specializes in Endoscopic Retrograde Cholangiopancreatogram (ERCP)

Genetics
Kristin May, Ph.D., Cytogenetics
Cathy Stevens, M.D., Board Certified Medical Genetics
Madison Thomason, M.S, Board Certified Genetics Counselor
Jill Pouncey, M.S., Board Certified Genetics Counselor

Gynecologic Oncology
Todd Boren, M.D.
Don Chamberlain, M.D.
Stephen DePasquale, M.D.

Interventional Radiology
Blaise Baxter, M.D.
Justin Calvert, M.D.
Harris Hawk, M.D.
Steven Quarfordt, M.D.

Medical Oncology
Matthew Graham, M.D.
John McCravey, M.D.
Larry Schlabach, M.D.
Rajni Sinha, M.D.

Neurosurgery
Peter Boehm, M.D.
Michael Gallagher, M.D.
Richard Kern, M.D.
Daniel Kueter, M.D.
Philip Megison, M.D.
Timothy Strait, M.D.

Otolaryngology
David Barnes, M.D., ENT Oncology
Mark Bookout, M.D.
Todd Fowler, M.D.
Peter Hunt, M.D., ENT Oncology
H. Joseph Lantz, M.D.
Douglas Liening, M.D.
Joseph Motto, M.D.
Robert Mynatt, M.D.
Chris St. Charles, M.D.

Pathology
Richard Hessler, M.D., Chief of Pathology
Anatomic Pathology & Neuropathology
Anne Herdman, M.D.
Anatomic & Clinical Pathology; GI/Liver Pathology
Crystal Jenkins, M.D.
Anatomic & Clinical Pathology; GI/Liver Pathology
Joyce Mills, M.D.
Anatomic & Clinical Pathology
David Spence, M.D.
Anatomic & Clinical Pathology; Hematopathology & Pediatric Pathology

Pediatric Oncology
Manoo Bhakta, M.D
Jennifer Keates, M.D.
Meghan McManus, M.D.
Avery Mixon, M.D.

Pediatric Radiology
Stephen Bresson, M.D.,
Specializing in Pediatric Radiology
Lynn Carlson, M.D.,
Specializing in Pediatric Radiology
Harigovinda Challa, M.D.,
Specializing in Pediatric and Neuroradiology
Marla Sammer, M.D.,
Specializing in Pediatric Radiology

Pediatric Surgery
Michael Carr, M.D.
Pete Kelley, M.D.
Curt Koontz, M.D.
Lisa Smith, M.D.
Participating Physicians (continued)

2014 Participating Cancer Program Physicians and Specialty Services

**Plastic Surgery**  
Mark A. Brzezinski, M.D.  
Marshall Jemison, M.D.  
J. Woody Kennedy, M.D.  
Jason Rehm, M.D.  
Jimmy L. Waldrop, M.D.

**Pulmonary Diseases**  
John Boldt, Jr., M.D.  
Upasana Chakraborty, M.D.  
Suresh Enjeti, M.D.  
John Gunter, M.D.  
Jasmine Shah, M.D.  
Sibaji Shome, M.D.

**Radiation Oncology**  
Jeffrey Gefter, M.D. (Adult and Pediatric)  
Norleena Gullett, M.D. (Adult)  
Frank Kimsey, M.D. (Adult)

**Radiology**  
Jeffrey Alvis, M.D.  
Specializing in Body Imaging  
Chad Barker, M.D.  
Specializing in Musculoskeletal Imaging  
Jose Barriocanal, M.D.  
Specializing in Nuclear Medicine  
Noel Bergquist, M.D.  
Specializing in Musculoskeletal Imaging  
Ryan Buckner, M.D.  
Specializing in Neuroradiology  
Peter Furicchia, M.D.  
Specializing in Body Imaging & Nuclear Medicine  
Frank Knight, M.D., Section Chief, Mammography  
Eileen Lorenz, M.D.  
Specializing in Musculoskeletal Imaging  
Saima Muzahir, M.D.  
Specializing in Nuclear Medicine  
Jacob Noe, M.D.  
Specializing in Neuroradiology  
Samuel Porter, M.D.  
Specializing in Neuroradiology  
Roxsann Roberts, M.D.  
Specializing in Neuroradiology

**General Surgery**  
Phillip Burns, M.D.  
Todd Cockerham, M.D.  
Joseph Cofer, M.D.  
Benjamin Dart, M.D.  
Daniel K. Fisher, M.D.  
Wesley Giles, M.D.  
Michael Greer, M.D.  
Benjamin Kellogg, M.D.  
Robert Maxwell, M.D.  
Vicente Mejia, M.D.  
Linda Pate, M.D.  
Michael Roe, M.D.  
Philip Smith, M.D.  
Alvaro Valle, M.D., Surgical Oncology  
Laura Witherspoon, M.D.

**Thoracic Surgery**  
James Headrick, M.D.  
Stephen Martin, M.D.  
James Zellner, M.D.

**Urology**  
Amar Singh, M.D., Chief, Minimally Invasive Surgery, Urologic Oncology  
Norman Galen, M.D.  
Colin Goudelocke, M.D.  
Anand Shridharani, M.D.  
Argil Wheelock, M.D.  
Paul Zmaj, M.D. (Pediatric)
Multi-disciplinary cancer conferences provide an opportunity for allied health professionals and physicians, from different specialty groups, to come together to discuss the patient’s medical history, physical findings, pathology and radiology results, tumor staging, clinical management and prognosis. These forums provide consultative services for patients and education to physicians and support staff.

Representation from Gynecologic, Medical (Adult and Pediatric), Radiation, Surgical (Colorectal/Head and Neck/General/Pediatric/Neurologic) and Urologic Oncology; Internal Medicine, Pediatric and Surgical Residents; Pathology, Diagnostic Radiology, Nursing, Nutrition and support staff are active participants in these conferences. By bringing these individuals together, patients are offered the latest and most optimal treatment options.

In 2014, Cancer Conference physician attendance/representation from the following specialties: medical oncology, surgery, pathology, radiation oncology, and radiology were 97%.

The 2014 Cancer Conference Schedule:
• General Conference meets the second, fourth and fifth Friday from 12:00 1:00 p.m.
• Genitourinary-focused conference meets the first and third Friday from 12:00 1:00 p.m.
• Gynecologic-focused conference meets every third Tuesday from 7:30 8:30 a.m.
• Pediatric-focused conference meets the third Monday of the month from 12:00 1:00 p.m.
• Thoracic conference meets the second and fourth Friday from 7:00 8:00 a.m.

During 2014, there was a total of 96 cancer conferences with 706 cases presented. Ninety-six percent of the cases presented were prospective cases. Prospective case presentation addresses patient management issues and includes AJCC stage (either clinical stage or working stage) and treatment options for each case. Prospective cases include, but are not limited to: newly diagnosed and treatment not yet initiated; newly diagnosed and treatment initiated, (but discussion of additional treatment is needed); and previously diagnosed (with discussion of supportive or palliative care). National Comprehensive Cancer Network (NCCN) treatment guidelines or other appropriate guidelines are referenced to ensure treatment plans are following national recognized standards. In addition, any applicable clinical trials are discussed.

In 2014, two cancer related lectures were delivered at Grand Rounds:
2/20/14 Hematology MKSAP 16 Review Matthew Graham, M.D.
12/4/14 Personalizing Treatment for Advanced NSCLC: Challenging Cases from Practice Jonathan Dowell, M.D.
The Chattanooga Tumor Clinic is a privately funded independent charity clinic located at Erlanger Hospital. The clinic was established in 1936 as a non-profit organization to provide services to the underserved cancer patients in the community. The clinic is staffed by oncology trained nurses and a multi-disciplinary team of volunteer physicians.

Clinical Research means Erlanger and the Children’s Hospital cancer patients have access to the largest variety and most advanced treatment options in the region— all monitored and approved by the UT College of Medicine Chattanooga Institutional Review Board. Affiliations include Vanderbilt-Ingram Cancer Center Affiliate Network (VICCAN), Eastern Cooperative Oncology Group (ECOG), and the Clinical Trials Support Unit (CTSU) and Children’s Oncology Group (COG).

The daVinci Robotic Surgery System is one of the newest technologies available for the treatment of prostate, cervical and uterine cancers that offers patients a shorter hospital stay, less pain and blood loss, lower risk of infection, and most importantly, a quicker return to normal activities. *Utilized by the Gynecologic & Urologic Oncology Surgeons

The University Oncology and Hematology Associates aligned with Erlanger Health System to form the UT/Erlanger Oncology and Hematology clinic. The newly formed clinic includes four medical oncologists, a lab, an infusion center, and highly skilled clinical staff. UT/Erlanger Oncology and Hematology compliments Erlanger’s existing medical oncology services, including the existing infusion center. The two infusion centers provide patients with a variety of outpatient care procedures and treatment options including: bone marrow biopsy, blood transfusions, chemotherapy and growth factors.

A Multidisciplinary Approach to cancer care means multiple physicians including: gynecologic/medical/pediatric/radiation and surgical oncologists, pathologists, radiologists, and an oncologic urologist. The UT College of Medicine Chattanooga residents play an integral role in devising the optimal treatment plans for every cancer patient. Representations from these groups meet on a weekly basis to review and discuss treatment options.

The Oncology Unit offers 21 large patient rooms and two comfort-care suites that provide patients with a comfortable environment to recover and receive in-patient care. All management staff on the oncology unit are oncology certified, are either present or past board members, or officers of the local Oncology Nurses Society. Patient care and measurement of quality outcomes utilized are supported by the Oncology Nurses Society standards. A resource area is located within the spacious family room to allow patients and family members to research information supported by the National Cancer Institute. Recognizing a need to reduce barriers associated with a diagnosis of cancer, a full time oncology educator meets with the cancer patients, answers questions and guides patients to educational materials and support services available. The goal is to empower the oncology patient with information and tools that will help him/her make better treatment decisions and navigate the overall cancer experience.

Pediatric Oncology, as a full member of the Children’s Oncology Group (COG), is where children and teens diagnosed with cancer, may receive the most modern, state-of-the-art treatments here in their local community without having to travel hours away to another hospital. The Children’s Oncology Group is supported by the National Cancer Institute.
Radiation Oncology offers the latest and most comprehensive radiotherapy treatment options for adults and children, featuring linear accelerators, CT simulator and three-dimensional planning computers for:

- **Brachytherapy High Dose Rate/Low Dose Rate (HDR/LDR) Remote Afterloader:** uses a catheter to direct radiation treatment into the specific tumor site allowing treatment to be completed over just a few days as opposed to being admitted to the unit.
- **Cyberknife:** offers a non-invasive alternative to surgery for the treatment of both cancerous and non-cancerous tumors anywhere in the body, including the head, spine, lung, prostate, breast, liver, and pancreas, in as few as 1-5 treatments.
- **Intensity Modulated Radiation Therapy (IMRT):** an advanced form of directing varying degrees of radiation to different parts of the treatment area.
- **Stereotactic Radiosurgery (SRS):** treats inoperable brain tumors with a precise delivery of external radiation and delivers a high dose of radiation to a targeted area.
- **Ultrasound guidance of IMRT:** pinpoints specific structures by allowing the treatment machine to be positioned accurately for daily correction of internal body movement.
- **3-D Conformal Radiation:** an innovative high-technology radiation technique. The computer simulation produces an accurate image of a tumor and surrounding organs so that multiple radiation beams can be shaped exactly to the contour of the treatment area. Used to treat cancer of the prostate and lung and certain brain tumors.

**Patient-Focused, Family-Centered Care**

**Erlanger Cancer Resource and Survivorship Center** provides a place for patients and families to educate themselves about their diagnosis and treatment plan. Computers with internet access, plus books and materials are available. The goal is to help patients and their families understand and cope with their cancer diagnosis and treatment while on their journey through the healing process.

**Genetic Testing and Counseling** offers the region’s only comprehensive genetics program, including the area’s only certified genetics counselor, geneticist and cytogeneticist.

**Oncology Dietitian** is available to provide nutritional consultation to the cancer patients across the continuum of the cancer experience including primary prevention, cancer treatment, secondary prevention, cancer recurrence and palliative care in an outpatient setting.

**Oncology Social Worker** is available to assist with practical issues such as transportation, financial and insurance concerns, and the effect cancer treatment has on employment. In addition, she helps navigate cancer care by offering support during the day-to-day challenges of living with cancer.

**Patient Advocate Program** guides cancer patients through treatment, helping with family issues and providing the needed emotional and spiritual support.

**Patient Navigation** guides patients with a suspicious finding (eg. test shows they may have cancer) through and around barriers in the complex cancer care system to help ensure timely diagnosis and treatment. Current Site specific patient navigators: Breast, Lung and Genitourinary.
Providing the Support Needed

- **Care Pages** is a free private website service that allows patients and their families to correspond with friends and loved ones.

- **Look Good Feel Better** is an American Cancer Society program for females in active cancer treatment. Sessions are held every other month and are designed to address the physical side effects of treatment through makeup application, wig styling and support.

- **Lost Chord Club** is a support group for men and women who have had a laryngectomy (removal of the voice box). The meetings provide support for changes in communication and include patients and their families.

- **Men Too** is an Erlanger Health System support group for prostate cancer patients and their loved ones. Monthly meetings are held and provide an opportunity for discussion, information and support.

- **Parent Support Group/Children’s Programming** provides parents and young patients/siblings a time to interact and provide support.

- **Supersibs** support the needs of young cancer patients’ brothers and sisters. It is geared for children ages 4-18 and instills a sense of engagement, belonging, pride and self esteem.

- **Teen Peer Support, Adolescents Together Against Cancer (ATAC)** provides new experiences and helps build relationships for teens that have or have had cancer.

### 2014 Health Prevention and/or Screenings:

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
<th>ATTENDANCE</th>
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<tbody>
<tr>
<td>2014</td>
<td>Prevention: Smoking Cessation Classes</td>
<td>5 People Completed</td>
</tr>
<tr>
<td>5/13/14</td>
<td>19th Annual Health Screenings for Men – Free Health Screening includes:</td>
<td></td>
</tr>
<tr>
<td>5/14/14</td>
<td>• Prostate Cancer</td>
<td>78 Men Screened</td>
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<tr>
<td>5/15/14</td>
<td>• Blood Pressure</td>
<td></td>
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<tr>
<td></td>
<td>• Body Mass Index</td>
<td></td>
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<tr>
<td></td>
<td>• HIV Testing</td>
<td></td>
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<tr>
<td></td>
<td>Educational presentations/materials and more</td>
<td></td>
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<tr>
<td>10/18/14</td>
<td>Erlanger East: Outside Tailgating Event Mammogram Screening for $99</td>
<td>12 Women Screened</td>
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<tr>
<td></td>
<td>Educational presentations/materials &amp; more</td>
<td></td>
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<tr>
<td>2014</td>
<td>Lung Cancer Screening Program: • $50 Scan/Read Compliant with NCCN guidelines</td>
<td>23 People Screened</td>
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## 2014 Community Outreach Lectures/Activities:

<table>
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<tr>
<th>DATE</th>
<th>TOPIC &amp; SPEAKER</th>
<th>ATTENDANCE</th>
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<tbody>
<tr>
<td>1/9/14</td>
<td>Nutrition and Cancer Betty Owens (Erlanger Prostate Support Group)</td>
<td>15</td>
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<tr>
<td>2/6/14</td>
<td>Genetics of Prostate Cancer: Should I Be Concerned About My Children and Grandchildren? Madison Thomason (Erlanger Prostate Support Group)</td>
<td>15</td>
</tr>
<tr>
<td>3/6/14</td>
<td>Xofigo for Treatment of Advanced Prostate Cancer Dr. Pradeep Jacob (Erlanger Prostate Support Group)</td>
<td>14</td>
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<tr>
<td>4/2/14</td>
<td>US Xpress Healthfair</td>
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<tr>
<td>4/3/14</td>
<td>US Xpress Healthfair</td>
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<tr>
<td>4/3/14</td>
<td>“Cryotherapy” Dr. Amar Singh (Erlanger Prostate Support Group)</td>
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<tr>
<td>4/11/14</td>
<td>Michele McNabb, Dr. Larry Schlabach &amp; Dr. Laura Witherspoon were nominated for the Healthcare Professional Life Inspiration Award through the American Cancer Society</td>
<td>n/a</td>
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<tr>
<td>5/9/14</td>
<td>Go Red For Women</td>
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<tr>
<td>5/16/14</td>
<td>Rock City Healthfair</td>
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<tr>
<td>5/19/14</td>
<td>“Triple Negative Breast Cancer” – Janet Kramer-Mai, RN</td>
<td>10</td>
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<tr>
<td>5/21/14</td>
<td>City of Chattanooga Wellness Healthfair</td>
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<tr>
<td>8/13/14</td>
<td>Cigna Wellness Healthfair</td>
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<tr>
<td>9/4/14</td>
<td>Question &amp; Answer Session with Dr. Christopher Keel (Erlanger Prostate Support Group)</td>
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<tr>
<td>9/10/14</td>
<td>“Nutrition Guidelines for Cancer Survivors” – Betty Owens (LiveStrong Cancer Survivor Group/YMCA Downtown)</td>
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<tr>
<td>9/30/14</td>
<td>“Breast Health Education: Importance of Yearly Mammography, Self Breast Awareness” – Janet Kramer, Mai, RN (CBL Event)</td>
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<tr>
<td>10/2/14</td>
<td>Question &amp; Answer Session with Dr. Singh (Erlanger Prostate Support Group)</td>
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<tr>
<td>10/17/14</td>
<td>Healthy Living Expo-Janet Kramer-Mai, RN (McKee Foods)</td>
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<tr>
<td>11/19/14</td>
<td>“Triple Negative Breast Cancer” – Lisa Morris, RN, MSN (3N Medical Group)</td>
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<tr>
<td>12/9/14</td>
<td>“Powerpoint presentation on Prostatectomy” - Dr. Keel (Erlanger Prostate Support Group)</td>
<td>9</td>
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</table>
Cancer Registry Report

A Cancer Registry is an information system designed for the collection, management, and analysis of data on persons with the diagnosis of cancer. The Erlanger Health System Cancer Registry utilizes the Electronic Registry System (ERS), a computerized database system, to input and maintain a wide range of demographic and medical information. These include: patient age, gender, race/ethnicity, residence, physical findings, screening information and occupation. The system also incorporates types/dates/results of procedures used to diagnose the cancer; primary site, cell type, extent of disease; cancer therapy including surgery, radiation therapy, chemotherapy, hormone or immunotherapy and follow-up which includes annual information about treatment, recurrence and patient status.

The cancer registry is staffed by two certified tumor registrar (CTR) who has passed a national accreditation exam and one non-certified tumor registrar. Certified staff members are active in the National Cancer Registrar’s Association and the Tennessee Tumor Registrar’s Association and annually attend state, regional and/or national meetings to stay abreast of the latest changes/updates in the cancer registry field.

Registrars manage the data and report cancer statistics to the Tennessee State Cancer Registry. This data is combined with data from other reporting institutions in Tennessee for the purpose of tracking and analyzing state data. As an accredited cancer program by the Commission on Cancer (CoC), the registry also participates in the annual call for data and submits cases to the National Cancer Data Base (NCDB). In addition, the Registry supplies statistics to the Facility Information Profile System (FIPS). FIPS Level II data is information comprised of cancer caseload data which includes cancer cases diagnosed and treated at the hospital within a specified year (by site and stage). This data is available to the public.

Registrars work closely with physicians, administrators, researchers, and health care planners to provide support for cancer program development, cancer committee and cancer conference coordination, compliance of reporting standards, and serve as a valuable resource for cancer information with the ultimate goal of preventing and controlling cancer. The cancer registrar also is involved in managing and analyzing clinical cancer information for the purpose of education, research, and outcome measurement.

Lifetime follow-up is an important aspect of the cancer registry. Current follow-up serves as a reminder to physicians and patients to schedule regular clinical examinations and provides accurate survival information.
# 2013 Cancer Site Distribution List

<table>
<thead>
<tr>
<th>Primary Site</th>
<th>Total Cases</th>
<th>Analytic</th>
<th>Non-Analytic</th>
<th>Male</th>
<th>Female</th>
</tr>
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<tr>
<td><strong>All Sites</strong></td>
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<td>120</td>
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<td>15</td>
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<td>10</td>
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<tr>
<td>- Lung/Bronchus</td>
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<tr>
<td>- Other</td>
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<tr>
<td><strong>Breast</strong></td>
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<td>- Colon</td>
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<td>25</td>
<td>23</td>
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<td>- Rectum</td>
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<td>20</td>
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<td>7</td>
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<td>3</td>
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<td><strong>Female Genital</strong></td>
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<td>- Other</td>
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<td>0</td>
<td>9</td>
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<td>110</td>
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<td>9</td>
<td>101</td>
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<td>0</td>
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<td><strong>Brain/Central Nervous System</strong></td>
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<td><strong>Urinary System</strong></td>
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<td>117</td>
<td>9</td>
<td>82</td>
<td>44</td>
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<td>33</td>
<td>13</td>
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<tr>
<td>- Kidney/Renal</td>
<td>75</td>
<td>70</td>
<td>5</td>
<td>45</td>
<td>30</td>
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<td>- Other</td>
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<td>5</td>
<td>0</td>
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<td>17</td>
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<td><strong>Blood and Bone Marrow</strong></td>
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<td><strong>Skin (Melanoma)</strong></td>
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<td><strong>Connective/Soft Tissue</strong></td>
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<td><strong>Bone</strong></td>
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<td>31</td>
<td>31</td>
<td>0</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

*Analytic cases: Cases diagnosed and/or admnistered any time.
*Non-analytic cases: Cases diagnosed elsewhere, access on one of systems.

2013 Cancer Site Distribution List

2013 Cancer Site Distribution List
2013 Geographic Distribution

Residence By County At Time Of Diagnosis

<table>
<thead>
<tr>
<th>County/State</th>
<th>Number of Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton County, TN</td>
<td>559</td>
<td>45%</td>
</tr>
<tr>
<td>Walker County, GA</td>
<td>94</td>
<td>7.5%</td>
</tr>
<tr>
<td>Bradley County, TN</td>
<td>81</td>
<td>6.5%</td>
</tr>
<tr>
<td>Marion County, TN</td>
<td>64</td>
<td>5.1%</td>
</tr>
<tr>
<td>Catoosa County, GA</td>
<td>56</td>
<td>4.5%</td>
</tr>
<tr>
<td>Rhea County, TN</td>
<td>49</td>
<td>3.9%</td>
</tr>
<tr>
<td>Whitfield County, GA</td>
<td>45</td>
<td>3.6%</td>
</tr>
<tr>
<td>Sequatchie County, TN</td>
<td>36</td>
<td>2.9%</td>
</tr>
<tr>
<td>Polk County, TN</td>
<td>26</td>
<td>2.1%</td>
</tr>
<tr>
<td>Jackson County, AL</td>
<td>25</td>
<td>2.0%</td>
</tr>
<tr>
<td>Gordon County, GA</td>
<td>21</td>
<td>1.7%</td>
</tr>
<tr>
<td>Bledsoe County, TN</td>
<td>21</td>
<td>1.7%</td>
</tr>
<tr>
<td>Dade County, GA</td>
<td>19</td>
<td>1.5%</td>
</tr>
<tr>
<td>DeKalb County, AL</td>
<td>16</td>
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</tr>
<tr>
<td>Fannin County, GA</td>
<td>14</td>
<td>1.1%</td>
</tr>
<tr>
<td>McMinn County, TN</td>
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<td>1.1%</td>
</tr>
<tr>
<td>Meigs County, TN</td>
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<td>1.0%</td>
</tr>
<tr>
<td>Franklin County, TN</td>
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</tr>
<tr>
<td>Murray County, GA</td>
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</tr>
<tr>
<td>Grundy County, TN</td>
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<td>0.7%</td>
</tr>
<tr>
<td>Gilmer County, GA</td>
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<td>0.6%</td>
</tr>
<tr>
<td>Coffee County, TN</td>
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<td>0.6%</td>
</tr>
<tr>
<td>Chattooga County, GA</td>
<td>5</td>
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</tr>
<tr>
<td>Union County, GA</td>
<td>4</td>
<td>0.3%</td>
</tr>
<tr>
<td>Putnam County, TN</td>
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<tr>
<td>Overton County, TN</td>
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<tr>
<td>Roane County, TN</td>
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</tr>
<tr>
<td>Bartow County, GA</td>
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<td>0.2%</td>
</tr>
<tr>
<td>Cumberland County, TN</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>White County, TN</td>
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<td>0.2%</td>
</tr>
<tr>
<td>Towns County, GA</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>*Other Counties</td>
<td>26</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

*Georgia, Florida, Mississippi, North Carolina, Tennessee, Texas and Virginia

2013 Cancer Incidence by County at Diagnosis

As expected, the majority of patients diagnosed and treated at the Erlanger Health System in 2013 resided in Hamilton County, Tennessee (45%). The remaining patients resided in other counties in Tennessee (28%), counties in Georgia (23%) and counties in Alabama (3%). *In addition (1%) were from other states.

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>914</td>
</tr>
<tr>
<td>Georgia</td>
<td>284</td>
</tr>
<tr>
<td>Alabama</td>
<td>42</td>
</tr>
<tr>
<td>*Other</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1254</strong></td>
</tr>
</tbody>
</table>

*Georgia, Florida, Mississippi, North Carolina, Tennessee, Texas and Virginia
2013 Cancer Incidence

The male to female ratio for 2013 is 1 to 1.17. The female population seen at Erlanger represents 54 percent or 676 patients and the male population represents 46 percent or 578 patients. Women experienced the highest incidence of cancer between the ages of 60-69, with the 50-59 age range being second. Men experienced the highest incidence of cancer between the ages of 60-69, with the 50-59 age range being second.
## 2013 Treatment Combinations

<table>
<thead>
<tr>
<th>Treatment Type(s)</th>
<th>Number of Cases</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>469</td>
<td>37.40%</td>
</tr>
<tr>
<td>None</td>
<td>151</td>
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</tr>
<tr>
<td>Chemotherapy</td>
<td>109</td>
<td>8.69%</td>
</tr>
<tr>
<td>Radiation</td>
<td>99</td>
<td>7.89%</td>
</tr>
<tr>
<td>Chemotherapy/Radiation</td>
<td>91</td>
<td>7.26%</td>
</tr>
<tr>
<td>Surgery/Chemotherapy</td>
<td>89</td>
<td>7.10%</td>
</tr>
<tr>
<td>Surgery/Chemotherapy/Radiation</td>
<td>80</td>
<td>6.40%</td>
</tr>
<tr>
<td>Surgery/Radiation</td>
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<td>4.70%</td>
</tr>
<tr>
<td>Surgery/Radiation/Hormone</td>
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<td>2.87%</td>
</tr>
<tr>
<td>Surgery/Hormone</td>
<td>23</td>
<td>1.83%</td>
</tr>
<tr>
<td>Other Combinations</td>
<td>48</td>
<td>3.82%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1254</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Based on 2013 Analytical Cases

### 2013 Top Ten Treatment Combinations

- **SURG** 38%
- **SURG/HOR** 2%
- **SURG/RAD/HOR** 3%
- **SURG/RAD** 5%
- **SURG/CHEM/RAD** 7%
- **SURG/CHEM** 7%
- **CHEM/RAD** 8%
- **RAD** 8%
- **CHEM** 9%
- **NONE** 13%
Breast cancer accounts for 16 percent of the Erlanger Health System oncology female population for 2013 with 195 women diagnosed and treated for this disease. *2013 Comparison of Selected Female Cancer Sites: Erlanger Health System compared to the American Cancer Society: (ACS)

![2013 Comparison of Selected Female Cancer Sites](image)

Lung cancer accounts for 9 percent of the Erlanger Health System oncology male population for 2013 with 116 men diagnosed and treated for this disease. *2013 Comparison of Selected Male Cancer Sites: Erlanger Health System compared to the American Cancer Society: (ACS)

![2013 Comparison of Selected Male Cancer Sites](image)
Cancer staging plays a pivotal role in the battle on cancer. It forms the basis for understanding the changes in population cancer incidence, extent of disease at initial presentation and the overall impact of improvements in cancer treatment. The most clinically useful staging system is the tumor node metastases (TNM) system maintained collabora-

tively by the American Joint Committee on Cancer (AJCC) and the International Union for Cancer Control (UICC). This system classifies cancers by the size and extent of the primary tumor (T), involvement of regional lymph nodes (N) and the presence or absence of distant metastases (M).

2013 Distribution by AJCC Stage

The Collaborative Staging System is a carefully selected set of data items that describe how far a cancer has spread at the time of diagnosis. Most of the data items have been collected by cancer registries, including tumor size, extension, lymph node status and metastatic status. New items were created to collect information necessary for the conversion algorithms, including the evaluation fields that describe how the collected data were determined, and site/histology-specific factors that are necessary to derive the final stage grouping for certain primary cancers. In addition to the items coded by the cancer registrar, this unified data set also includes several data items derived from the computer algorithms that classify each case in multiple staging systems: the seventh edition of the AJCC TNM system (TNM), Summary Stage 1977 (SS77), and SEER Summary Stage 2000 (SS2000).

2013 Distribution by Collaborative Stage

Currently, the Cancer Registry utilizes both AJCC and Collaborative Staging
Ten-Year Comparison of Major Site Groupings at Erlanger

<table>
<thead>
<tr>
<th>Site</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>186</td>
<td>164</td>
<td>148</td>
<td>139</td>
<td>155</td>
<td>159</td>
<td>149</td>
<td>192</td>
<td>192</td>
<td>212</td>
<td>1696</td>
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<tr>
<td>Breast</td>
<td>119</td>
<td>115</td>
<td>123</td>
<td>128</td>
<td>138</td>
<td>174</td>
<td>204</td>
<td>173</td>
<td>161</td>
<td>198</td>
<td>1533</td>
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<tr>
<td>Colorectal</td>
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<td>86</td>
<td>69</td>
<td>78</td>
<td>66</td>
<td>56</td>
<td>80</td>
<td>77</td>
<td>68</td>
<td>733</td>
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<tr>
<td>Head &amp; Neck</td>
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<td>53</td>
<td>56</td>
<td>65</td>
<td>51</td>
<td>48</td>
<td>54</td>
<td>66</td>
<td>61</td>
<td>54</td>
<td>587</td>
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<tr>
<td>Cervix &amp; Corpus Uteri</td>
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<td>51</td>
<td>60</td>
<td>49</td>
<td>74</td>
<td>65</td>
<td>76</td>
<td>80</td>
<td>97</td>
<td>109</td>
<td>725</td>
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<td>Leukemia &amp; Lymphoma</td>
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<td>70</td>
<td>69</td>
<td>67</td>
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<td>46</td>
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<td>47</td>
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<td>73</td>
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<td>92</td>
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<td>18</td>
<td>24</td>
<td>19</td>
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<td>*Other Sites</td>
<td>218</td>
<td>221</td>
<td>201</td>
<td>294</td>
<td>202</td>
<td>287</td>
<td>248</td>
<td>364</td>
<td>332</td>
<td>349</td>
<td>2716</td>
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<tr>
<td><strong>Total</strong></td>
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<td>836</td>
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<td>1222</td>
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<td>1254</td>
<td>10155</td>
</tr>
</tbody>
</table>

*All other Cancer Sites

2004-2013 Erlanger Health System
Overview by Cancer Site

The above statistics are based on **analytic** cases.

**Analytic cases** – cases diagnosed at the accessioning facility and/or administered any of the first course of treatment, after the cancer registry’s reference date of 1998.

**Non-analytic cases** – cases diagnosed elsewhere, accessioned elsewhere and/or all of first course of treatment administered elsewhere.
Breast Cancer

Excluding cancers of the skin, Breast Cancer is the most frequently diagnosed cancer in women. An estimated 232,670 new cases of invasive breast cancer are expected to be diagnosed among women in the United States during 2014. In 2013, there were 3 men and 195 women newly diagnosed and treated for breast cancer at the Erlanger Health System. This was 16% of the total 1,254 analytic cases reported in 2013.

Per the American Cancer Society Cancer Facts and Figures 2014; breast cancer risk factors, signs/symptoms, early detection, treatment, and survival are as follows:

• **Risk Factors:** Potentially modifiable factors associated with increased breast cancer risk include weight gain after the age of 18, being overweight or obese (for postmenopausal breast cancer), use of MHT (combined estrogen and progestin), physical inactivity, and alcohol consumption. In addition, recent research indicates that long-term, heavy smoking also increases breast cancer risk, particularly among women who start smoking before pregnancy. Other factors associated with increased breast cancer risk include high breast tissue density (the amount of glandular tissue relative to fatty tissue measured on mammogram), high bone mineral density (women with low density are at increased risk for osteoporosis), type 2 diabetes, certain benign breast conditions (such as atypical hyperplasia), and lobular carcinoma in situ. High dose radiation to the chest for cancer treatment also increases risk. Reproductive factors that increase risk include a long menstrual history (menstrual periods that start early and/or end later in life), recent use of oral contraceptives or depoProvera, never having children, and having one’s first child after age 30.

Risk is also increased by family history of breast cancer, particularly having one or more affected first-degree relatives (though most women with breast cancer do not have a family history of the disease). Inherited mutations (alterations) in the breast cancer susceptibility genes BRCA1 and BRCA2 are very rare in the general population (much less than 1%), but account for 5%-10% of all female breast cancers, an estimated 5%-20% if male breast cancers, and 15%-20% of familial breast cancers.

Factors associated with a decreased risk of breast cancer include breastfeeding, regular moderate or vigorous physical activity, and maintaining a healthy body weight. Two medications - tamoxifen and raloxifene - have been approved to reduce breast cancer risk in women at high risk.

• **Signs & Symptoms:** Breast cancer typically produces no symptoms when the tumor is small and most treatable. Therefore, it is important for women to follow recommended screening guidelines to detect breast cancer at an early stage. Larger tumors may become evident as a breast lump, which is often painless. Less common symptoms include persistent changes to the breast, such as thickening, swelling, distortion, tenderness, skin irritation, redness, scaliness, or nipple abnormalities, such as ulceration, retraction, or spontaneous discharge. Breast pain is more likely to be caused by benign conditions and is not a common early symptom of breast cancer.

• **Early Detection:** Breast cancer screening for women at average risk includes clinical breast exam and mammography. Mammography can often detect breast cancer at an early stage, when treatment is more effective. Numerous studies have shown that benefit from treatment with an aromatase inhibitor (e.g., letrozole, anastrozole, or exemestane) in addition to, or instead of tamoxifen. For women whose cancer tests positive for HER2/nue, several therapies are available that target the growth-promoting protein HER2.

• **Treatment:** While some cases of ductal carcinoma in situ (DCIS) will progress to invasive cancer, many will not. However, because there is currently no way to distinguish which lesions will go on to cause harm, surgery is recommended for all patients. Treatment options for DCIS include breast-conserving surgery
Colon Cancer

with radiation therapy or mastectomy; if the tumor is hormone receptor-positive, surgery may be followed by treatment with tamoxifen. Removal of axillary lymph nodes is not generally needed, but a sentinel lymph node procedure may be performed with a mastectomy. A report by a panel of experts convened by the National Institute of Health concluded that in light of the noninvasive nature and favorable prognosis of DCIS, the primary goal of future research should be the development of risk categories so each patient can receive the minimum treatment necessary for a successful outcome.

• **Survival:** Overall, 61% of breast cancer cases are diagnosed at a localized stage (no spread to lymph nodes or other locations outside the breast), for which the 5-year relative survival rate is 99%. If the cancer has spread to tissues or lymph nodes under the arm (regional stage), the survival rate is 84%. If the spread is to lymph nodes around the collarbone or to distant lymph nodes or organs (distant stage), the survival rate falls to 24%. For all stages combined, relative survival rates at 10 and 15 years after diagnosis are 83% and 78%, respectively. Many studies have shown that being overweight adversely affects survival for postmenopausal women with breast cancer. In addition, breast cancer survivors who are more physically active, particularly after diagnosis, are less likely to die from breast cancer, or other causes, than those who are inactive.

*The Breast Cancer overview information was taken from the American Cancer Society Cancer Facts and Figures 2014.*

**Breast Services available at @ Erlanger East Campus as of July 2014:**

- Digital Mammography
- Dedicated Breast Radiologist
- 3-D Tomosynthesis Mammography
- Ultrasound
- Bone Density Testing
- Breast Cancer Navigator
- Breast Radiologist is onsite full-time for fast, accurate testing
- The region’s only cancer program with Board Certified Genetics Counselors

**3-D Tomosynthesis Mammography**

This new technology allows our radiologists to see the breast tissue from many different angles and between layers of breast tissue. It may be used for a screening tool in conjunction with a traditional digital mammogram, or it may be used by itself for a diagnostic mammogram. Benefits include:

- Earlier detection of small breast cancers that may be hidden during digital mammography
- Greater accuracy in pinpointing size, shape and location of abnormalities
- Fewer unnecessary biopsies or additional tests
- Greater likelihood of detecting multiple breast tumors, which occur in 15% of breast cancer patients
- Clearer images of dense breast tissue
Breast Cancer Study
2003-2013 Stage of Breast Cancer Diagnosed at Erlanger Health System
Versus All Types Hospitals in All States

From 2003 through 2013, a total of 24 men and 1615 women with breast cancer were entered into Erlanger Health System’s cancer registry database. The stage of the tumor at the time of diagnosis is a measure of how far the cancer has advanced. Stage 0 is the least advanced, while Stage IV is the most advanced. The graph below shows the stages of tumors diagnosed at Erlanger Health System compared to the National Cancer Database (NCDB) statistics on breast stage at diagnosis. Of the cases diagnosed at Erlanger Health System, 286 (17%) were stage 0; 613 (37%) were stage I; 447 (27%) were stage II; 191 (11%) were stage III; and 75 (5%) were stage IV. There were 27 (2%) patients who were not staged or could not be staged. This data compared to the National Cancer Database (NCDB) statistics for this same period of time are as follows: 20% were stage 0; 39% were stage I, 24% were stage II, 9% were stage III, 4% were stage IV and 4% not staged.
Kidney Cancer Overview

An estimated 63,920 new cases of kidney (renal) cancer are expected to be diagnosed in 2014. This estimate largely reflects renal cell carcinomas, which start in the body of the kidney, but also includes cancers of the renal pelvis (6%), which behave more like bladder cancer, and Wilm’s tumor (1%), a childhood cancer that usually develops before the age of 5. After increasing for several decades, kidney cancer incidence rates were stable in both men and women from 2006-2010.

• **Sign & Symptoms:** Early stage kidney cancer usually has no symptoms. As the tumor progresses, symptoms may include blood in the urine, a pain or lump in the lower back or abdomen, fatigue, weight loss, fever, or swelling in the legs and ankles.

• **Risk Factors:** Tobacco use is a strong risk factor for kidney cancer, with the largest risk for cancer of the renal pelvis, particularly among heavy smokers. Additional risk factors for renal cell carcinoma include obesity, to which an estimated 30% of cases can be attributed; high blood pressure; chronic renal failure; and occupational exposure to certain chemicals, such as trichlorethylene, an industrial agent used as a metal degreaser and chemical additive. Radiation exposure (such as for cancer treatment) slightly increases risk. A small proportion of renal cell cancers are the result of rare hereditary conditions (e.g., von Hippel-Lindau disease and hereditary papillary renal cell carcinoma). Physical activity decreases the risk of kidney cancer.

• **Early Detection:** There are no recommended screening tests for the early detection of kidney cancer among people at average risk.

• **Treatment:** Partial Nephrectomy is now considered the standard of care treatment for renal masses less than 7 cm when technically feasible. This can be performed minimally invasive or through the traditional open approach with excellent oncologic outcomes that have proven to be equivalent to radical nephrectomy, with a decreased risk for chronic kidney disease. An emerging program of Active surveillance (observation) may be offered to some patients with small tumors, most less than 2 cm. Patients who are not surgical candidates may be offered ablation therapy, a procedure that uses heat or cold to destroy the tumor. Kidney cancer tends to be resistant to both traditional chemotherapy and radiation therapy. Improved understanding of the biology of kidney cancer has led to the development of several targeted therapies that are used to treat metastatic disease.

• **Survival:** The 1- and 5-year relative survival rates for cancer of the kidney are 85% and 72% respectively. More than half (63%) of cases are diagnosed at the local stage, for which the 5-year relative survival rate is 92%. Five-year survival is lower for renal pelvis (51%) than for renal cell carcinoma (73%).

*Much of the Kidney Cancer overview information was taken from the American Cancer Society Cancer Facts and Figures 2014.*
Introducing CyberKnife®...
the world’s first and only robotic radiosurgery system.
Only at Erlanger.

CyberKnife offers a non-invasive alternative to surgery for the treatment of both cancerous and non-cancerous tumors anywhere in the body, including the head, spine, lung, prostate, breast, liver, and pancreas, in as few as 1–5 treatments.

The CyberKnife Advantage
- Improved Treatment Delivery
- Unprecedented accuracy using real time lesion tracking
- Intelligent Robotics
- Unmatched Agility
- Radiosurgery Efficacy
- Non-Invasive Tumor Ablation
- Offering the world’s first lung optimized treatment that does not require invasive marker placement in most patients.

Other treatment options offered at the Erlanger Cancer Center:
- Stereotactic Radiosurgery (SRS)
- Intensity Modulated Radiation Therapy (IMRT)
- Ultrasound guidance of IMRT
- 3-D Conformal Radiation
- Brachytherapy High Dose Rate/Low Dose Rate (HDR/LDR)
Erlanger Health System Cancer Services

The Erlanger Health System Cancer Services received a three-year approval with commendation from the Commission on Cancer as an Academic Comprehensive Cancer Program. An overview of the cancer services offered at Erlanger is as follows:

• American Cancer Society Collaborations
• Breast Resource Center (Baroness and Erlanger East Campus)
• Cancer Conferences (General, Genitourinary, Gynecologic, Pediatric-focused, and Thoracic)
• Cancer Registry
• Chattanooga Tumor Clinic (Provides services to underserved cancer patients)
• Clinical Trials and Research (Adult and Pediatric)
• Community Outreach Program
• Endoscopic Ultrasound
• Genetic Testing and Counseling
• Gynecologic Surgery (da Vinci Robotic Surgery System)
• Infusion Center
• Interventional Radiology:
  • Chemoembolization
  • Percutaneous Biopsy
  • Radiofrequency Ablation
  • Vascular Access Procedures
  • Vascular Embolization Procedures
• Inpatient Oncology Unit –21 bed
• Medical Oncology (Adult and Pediatric)
• Neurosurgery
• Oncology Dietitian
• Oncology Social Worker
• Patient Advocate Program
• Patient Navigation (Breast, Lung and Genitourinary)
• Pathology (Adult and Pediatric)
• Radiation Oncology (Adult and Pediatric):
  • Cyberknife
  • Brachytherapy High Dose Rate (HDR) and Low Dose Rate (LDR) for GYN & Mammosite Partial Breast Irradiation
  • Intensity Modulated Radiation Therapy (IMRT)
  • Stereotactic Radiosurgery (SRS)
  • 3-D Conformal Radiation
• Radiology (Adult and Pediatric)
• Social Worker
• Surgical Oncology (Adult and Pediatric)
• Urologic Surgery (specializing in minimally invasive surgery):
  • Cryoablation
  • Incontinence and Pelvic Reconstruction
  • Prostatectomy utilizing the da Vinci Robotic Surgery System
  • Partial Nephrectomy utilizing the da Vinci Robotic Surgery System
  • Total Cystectomy with ileal loop diversion utilizing the da Vinci Robotic Surgery System

Coming 2015: Expanded cancer services at Erlanger East