

2007-2008 ANNUAL REPORT

About the Akron General McDowell Cancer Center

The McDowell Cancer Center is approved as a teaching hospital program by the American College of Surgeons, Commission on Cancer (CoC). We offer comprehensive oncology care and services with the goal of providing well-coordinated patient and family-centered care. Treating our patients includes addressing the physical, emotional, spiritual, cultural and psychosocial needs of each patient. This is evidenced by the departments and services that make up our multi-disciplinary cancer care team.

ONGOING EDUCATIONAL OPPORTUNITIES

Regular cancer conferences provide a forum for collaboration of our multidisciplinary team. Special Cancer Conference Presentations in 2007 included:

1/19/2007

Khaled Hamzeh, MD

Resident, Akron General

"Sentinel Node Biopsy Before and After
Neoadjuvant Chemotherapy: Is it necessary?
Is timing important?"

3/9/07

Amy Jarvis, MD

Resident, Akron General

"Tarceva Treatment for Bronchio-alveolar
Carcinoma"

3/16/07

Catherine Ward, MD

Genetics, Akron Children's Hospital

"Hereditary Breast Cancer BRCA and Beyond"

5/18/07

Eliot Mostow, MD

Chief, Dermatology; Chair, Melanoma

Subcommittee, Akron General

"The ABCD's of Dermatology"

6/1/07

Floro Miraldi, MD

neo-PET

"Update on the Use of PET Scanning"

6/15/07

Ravi Kumar, MD

Breast Fellow, Breast Health Center, Akron General

"Herceptin"

9/7/07

Hanadi Bu-Ali, MD

Breast Fellow, Breast Health Center, Akron General

"Benign Breast Disease and the Risk of
Breast Cancer"

9/21/07

Rosemary Leeming, MD

UHHS Chagrin Highlands Medical Center

"Genomics in The Management of Breast Cancer"

11/2/07

Hanadi Bu-Ali, MD

Breast Fellow, Breast Health Center, Akron General

"Ductal Carcinoma In-Situ"


KNOW THE SYMPTOMS OF LUNG CANCER

Lung cancer is the leading cause of cancer death in both men and women. According to the American Cancer Society Cancer Facts & Figures 2008, it is estimated 215,020 new lung cancer cases are expected, accounting for about 15% of cancer diagnoses.

Lung cancer usually does not cause symptoms at first, but symptoms can appear as the tumor grows.

- **Persistent cough**
- **Bloody or rust-colored sputum or phlegm**
- **Recurring pneumonia or bronchitis**
- **Shortness of breath, wheezing or hoarseness**
- **Chest pain, often aggravated by deep breathing**
- **Loss of appetite or significant weight loss**

None of these symptoms is a sure sign of lung cancer but may be another, less serious health problem. It is best for patients to make an appointment with their physician to determine whether or not the symptoms are caused by cancer or by another problem.



THOMAS WELLING TRUSTS AKRON GENERAL TO HELP WITH HIS LUNG CANCER

Thomas Welling's wife was sick for the last four years of her life, and she trusted Akron General Medical Center to be there for her the whole time. When Mr. Welling received the terrible news that he had lung cancer about a month after her death in 2004, there was never any doubt in his mind about where he would go for his care.

"My wife got top-notch care at Akron General and it is where I go now. I brag about that hospital all the time," Mr. Welling says. "They always treated both of us so well and also it is so convenient to my job."

The 71-year-old works full-time at Acro Tool & Die Co. running high-speed screw machines to make parts for automotive tires. He describes it as "the greatest place to work" because his employer accommodates his treatment schedule and allows him to modify his work as his physical condition requires.

Mr. Welling first learned of his lung cancer after his cardiologist ordered several tests to look for a possible blockage in his heart. The results indicated a possible problem in the right lung, and further testing and a biopsy confirmed that it was a malignant tumor.

He went to see Esther Rehmus, MD, a cancer specialist at Akron General's McDowell Cancer Center, who put him on a treatment regimen of radiation therapy five days a week for seven weeks along with an infusion of chemotherapy every Friday. The cancer responded well, and Mr. Welling was able to stop treatment. He continued to have regular CT scans at increasingly large intervals – first every three months, then every six months. Unfortunately, the follow-up testing ultimately found that the tumor had returned to the same area, slightly larger than before.

Today, Mr. Welling is enrolled in one of the many clinical trials that Akron General is able to offer its patients. He is in the ATLAS trial, a pharmaceutical industry trial that is looking at combinations of chemotherapy and targeted therapies for lung cancer. He takes daily chemotherapy pills and receives a chemotherapy infusion every 21 days.

He is tolerating this regimen well and feels good. He spent much of his non-work time this summer meticulously tending his garden at the Springfield Township home he shares with his son. "It is my hobby and my pleasure," he says proudly.

The Year in Review

Breast Health Center

The Breast Health Center renovation project is now complete. Opening Ceremonies were held May 6, 2008. Funds for this \$1.3 million project were raised by the Development Foundation. Donors included the Women's Board, Akron Racers and the Akron General Employee Appeal.

The Breast Health Center has six exam rooms, a café and a lounge area with a fireplace. The area flows into Radiology, which is fully equipped with state-of-the-art technology that includes three digital mammography units, ultrasound and a stereotactic biopsy room.

Six surgeons see patients in the Breast Health Center, one of whom is a Breast Fellow. We also have two certified Breast Health Coordinators who work with patients.

In 2007, the surgeons saw more than 1,600 patients, a number which is expected to rise in 2008 (current volume is almost 200 patients per month). Our goal is to achieve a diagnosis within 14 days of a patient's first visit; our actual average in 2007 was 12 days.

The Breast Health Center held a symposium entitled "Innovations in Genetic and Molecular Therapy for Breast Cancer" on May 7. Featured speakers were Eleftherios Mamounas, MD, MPH, FACS; Norman Wolmark, MD, FACS; Patrick Whitworth, MD, FACS; and Adam Brufsky, MD, PhD.

The Akron General and Main Street Gourmet Muffins for Mammograms program continues to assist women who cannot afford a mammogram, and a grant was received from the Komen Foundation.



Pictured Andrew Fenton, MD, Surgeon; Gary Classen, DO, Radiologist; Kathy Lukity, RN, Breast Health Nurse; Donna Gemmell, Manager; Gerald Hulvat, MD, Radiologist; Bobby Stevens, DO, Breast Fellow.

Lung Center

The Lung Center treats five to 10 patients per month. The time frame from visit to diagnosis is under 14 days. The focus of the Lung Center is changing, and patients with nodules are now seen first in Pulmonology and referred to the Lung Cancer Center if a lung cancer diagnosis is made. The patient will then be seen by the cardiothoracic surgeon and medical and radiation oncologists to fast-track their treatment plan.

McDowell Inpatient Oncology Unit (5400)

Nursing expertise and compassion continue to drive the progressive Inpatient Oncology Unit. Located on the fifth floor, Unit 5400 consists of 27 private rooms. Our multidisciplinary approach to optimal health for our patients consists of board-certified oncologists, physicians, certified chemotherapy nurses, advanced practice nurses, dietitians, social workers, rehabilitation services, pharmacy, respiratory, laboratory, care managers as well as a spiritual care department. All disciplines work together to provide highly competent evidenced based care promoting well being while embracing quality of life through caring, listening and unconditional acceptance.

Unit 5400 has open visiting hours for the convenience of our patients and their families. A beautifully appointed family room and kitchen are also available. For those families wishing to spend the night we are able to offer a private bedroom or lounge chairs for night time comfort.

The milkshake program – founded by the late "Milkshake Man" Berman Stills – still remains intact in his honor and memory. The milkshakes, made by our volunteers, provide a soothing treat for our patients.

Outpatient McDowell Cancer Treatment Center

The Outpatient McDowell Cancer Treatment Center had 12,167 patient visits in 2007. Since our top priority is patient care and safety, all registered nurses in the Outpatient McDowell Cancer Treatment Center attend chemotherapy classes and pass a rigorous chemotherapy certification exam.

Nurses maintain their certification by completing an annual competency exam. As a continued commitment to high quality patient care, nurses can take a National Certification in Oncology

through the Oncology Nursing Certification Corporation. We are proud to report that 70 percent of the eligible nursing staff has this certification.

Medical Oncology and Hematology

Medical Oncology and Hematology experienced another year of progress. Three additional medical oncologists moved into the Physician Office Building, enhancing consultation and coverage options for patients. They also assumed additional duties by serving on committees and becoming involved in research activities.

Our percentage of patients placed on study protocols remained very high, reflecting our high level of coordination with other departments as well as the dedication of the medical oncologists.

New approaches to treatment using both familiar medications and recently developed therapies continue to be explored, with many encouraging results.

Surgery

Surgery plays a large role in cancer care diagnosis and treatment. Our general surgeons as well as specialists in thoracic surgery, urology, gynecology, neurosurgery and plastic surgery play key roles in cancer patient management and treatment. Our trend is toward minimally invasive surgery (laparoscopic and thorascopic) for the treatment of many tumors, including colorectal, urologic and thoracic cancer, as well as robotic surgery for prostate and gynecologic malignancies.

We are implementing many innovations in breast cancer and melanoma treatment, including sentinel lymph node biopsies and MammoSite catheter insertion for partial breast irradiation.

McDowell Radiation Oncology Department

Radiation Oncology performed approximately 19,000 treatments at Akron General and Robinson Radiation Oncology, a satellite facility joint venture with Robinson Memorial Hospital, in 2007.

Partial breast irradiation in selected patients, while technically still investigational, continues to be increasingly utilized, with another year of excellent preliminary results in terms of disease control, cosmesis and patient satisfaction. The department has performed the second highest number of partial breast irradiation procedures in Northeast Ohio with the MammoSite Radiation Therapy System.™ Formal approval may be given for this treatment as a standard of care in selected breast cancer patients, pending the results of a National Cancer Institute-sponsored randomized trial to which Akron General has contributed patients.

In the final quarter of 2007, a state-of-the-art linear accelerator was installed at Akron General. This linear accelerator is the first in Summit County to offer Conebeam image-guided radiation therapy for more accurate treatment of a variety of cancers. The GE LightSpeed RT CT/Simulator has Advantage 4D. This allows us to capture the full range of motion of critical structures and lesions during respiration. This knowledge aids the oncologist in selecting the proper phase of the respiratory cycle to plan for a more targeted radiation treatment. It also will allow us to perform stereotactic radiosurgery on patients with selected cancers.

Gynecologic Oncology

Akron General's participation in the Gynecologic Oncology Group (GOG) and National Cancer Institute (NCI) cooperative research trials continues to provide patients with the latest therapies. Research within the Department of OB/GYN continues to attract interest at national conferences. Cancer related research presented included, "Variables Associated with Cognitive Function in Ovarian Cancer," at the North American Society for Psychosocial Obstetrics and Gynecology Annual Meeting, Portland, Oregon, February, 2007 and "Celecoxib-related Gastrointestinal Complications in Female Fischer 344 Rats," at the National Meeting Association for Laboratory Animal Science, Charlotte, NC, Oct, 2007.

Robotic surgery for gynecologic malignancies is now used to treat patients who require radical surgery resulting in less pain, hospital discharge (often within 24 hours) and faster recovery. Intraperitoneal or "bellywashing" chemotherapy protocols are among the several methods we offer to provide ovarian cancer patients with the best therapeutic options available. Patients with cervical and other gynecologic cancers are being treated with the latest technology available. High Dose Rate (HDR) brachytherapy, Intensity Modulated Radiation Therapy (IMRT) and image guided radiation therapy (IGRT) are being incorporated into patients' treatment plans.

The Gynecologic Oncology subcommittee continually reviews cancer registry data and performs audits to ensure compliance with the National Comprehensive Cancer Network (NCCN) Guidelines. Dr. Karen Gil, PhD, Director of OB/GYN Research, serves on the Quality of Life Committee for the Gynecology Oncology Group and has helped to coordinate research on a national level.

The William Cook, MD, Visiting Professor Program provided education on "HPV Vaccines: Progress, Controversy and Unanswered Questions" and "Therapeutic Vaccination for Cervical Neoplasia" from Warner K. Huh, MD, a national leader in HPV research.

Also in 2007, we provided cervical cancer screenings for indigent patients through the Akron General Women's Health Clinic.



Cancer Center Pharmacy

The Cancer Center Pharmacy made these important contributions to cancer care at Akron General in 2007:

- Completed research project:
Rapid Infusion of Monoclonal Antibodies vs. Standard Infusions and the Incidence of Acute Infusion Reactions presented at the Great Lakes Pharmacy Resident Conference at Purdue University in May 2007.
- Presented *Recent Advances in Targeted Therapy for the Treatment of Cancer: From the Atomic Bomb to the Sniper Rifle* at the 2007 Hematology & Oncology Summit Current Concepts in Cancer: Herbert Croft and James Perelman Visiting Professorship, and Joan Ashley Fiffick Lecture
- Held monthly educational in-services for Cancer Treatment Center nurses
- Maintained and updated pre-printed chemotherapy order forms that help ensure patient safety
- Revised and updated symptom management protocols, and fatigue and symptom management booklets
- Precepted two pharmacy practice residents from Akron General and students from Ohio State University, University of Toledo and Ohio Northern University.

Cancer Research

Akron General continues to offer patients the opportunity to join clinical trials for all stages and types of cancer. Clinical trials are an important way to answer questions scientifically about the prevention, detection and treatment of cancer.

We participate in several National Cancer Institute-sponsored cooperative groups, pharmaceutical industry trials as well as in-house clinical studies. In 2007, accrual continued to grow, with 170 registrations to clinical trials. This accrual rate is 15 percent of our analytic cases for the year (compared to national averages of 2-3 percent).

Here are the groups and numbers of accruals in 2007:

American College of Surgeons Oncology Group	1
Radiation Therapy Oncology Group	11
Southwest Oncology Group	24
<i>(includes the phase III menu offered by the Cancer Trials Support Unit)</i>	
National Surgical Adjuvant Breast and Bowel Project	10
Gynecologic Oncology Group	4
Pharmaceuticals	35
Investigator-initiated studies	85

Diagnostics/Radiology

Radiology has experienced a year of upgrading technology to best serve patients. We added a nuclear camera and upgraded four ultrasound units and all of the magnetic resonance imaging (MRI) machines on the main campus. We continually strive to deliver easy access, timeliness of care and state-of-the-art technology. We added a 64-slice computed tomography (CT) scanner at our Health & Wellness Center - West and upgraded one of the two 64-slice scanners on the main campus.

MRI continues to be used for breast biopsies, providing greater accuracy in accessing difficult lesions. Positron emission tomography (PET) scanning remains important in cancer diagnosis and staging. Our software allows fusion of PET, CT and MRI images to increase diagnostic accuracy.

Pathology

Pathology works closely with Medical Oncology, Radiation Oncology and Surgery to provide accurate diagnostic, prognostic and staging information. Pathologists participate in weekly cancer conferences, contribute to site-specific cancer committees and are involved in resident education. Akron General operates the only School of Cytotechnology in Ohio, and graduated its 40th class in 2008.

Our Fine Needle Aspiration (FNA) service provides point-of-care evaluation of patient samples obtained by image guidance, and our specially trained cytopathologists perform the FNA procedure on palpable lesions. This allows for rapid, non-surgical diagnosis.

In the clinical laboratory, medical technologists perform highly complex testing on blood and bone marrow, providing information that helps guide therapy. Our medical technologists work closely with the Cancer Treatment Center staff to provide rapid test results, decreasing patient wait time for treatment.

Oncology Nutrition

In 2007, we continued to develop our nutritional screening program with the Cancer Treatment Center and Radiation Oncology. The screening procedure has identified potential nutrition lifestyle concerns in about 800 patients, of whom 43 percent required additional dietitian attention and follow-up.

Lisa Grillo, MS, RD, LD, joined the staff as the primary oncology dietitian. She educates the community, staff, colleagues, interns and dietetic students.

Pain Management

The Pain Management Program is available to assist in relieving pain and other distressing symptoms. We provide pain management counseling, education and therapy options to patients, nurses and physicians.

Since its inception in 1995, the Pain Management Program has seen significant annual growth as measured by new consultations. This trend continued in 2007, with 712 new consultations, an increase of about 14 percent over the previous year.

Psychiatry and Behavioral Sciences

Patients and families have access to behavioral health services to help them cope with the diagnosis and treatment of cancer. Consultations with a psychologist and/or psychiatrist are available during hospitalization, followed by referrals to outpatient providers for ongoing treatment needs, including counseling services and medication management.

Participation in outpatient psychiatric programs is available through the Partial Hospitalization Program, which can be a valuable resource to patients and their families.

Rehabilitation Services

Rehabilitation continues to focus on providing education and treatment to alleviate the functional deficits that occur with a cancer diagnosis and treatment.

Physical Therapy provides comprehensive treatment for patients who are experiencing lymphoedema. Our research study "The Lymphoedema Project" continues; it is a combined effort with the Cancer Center, the Breast Health Center and Outpatient Physical Therapy. The knowledge survey is complete and a web-based Behavior Survey about how patients practice lymphoedema risk reduction strategies has been designed. Our research has been presented at the Akron General Summer Symposium and the Ohio and the American Physical Therapy Association combined session meetings.

Speech Therapy is working with Radiation Oncology to improve identification and treatment of swallowing disorders after cancer treatment.

Rehabilitation Services is also working with Oncology to develop exercise programs for patients, as research indicates exercise as part of a comprehensive treatment plan can alleviate fatigue and nausea and reduce recurrence of disease.

Wound Center

Patients with cancer may have an increased problem with non-healing wounds, delayed wound healing and wound dehiscence. These patients also may experience changes in their normal skin integrity. The Wound Center at Akron General helps optimize new techniques in skin care and wound healing to assist cancer patients experiencing these secondary problems during or after cancer treatment.

Our certified wound and ostomy nurses can address issues with stomal care that are unique to treating the oncology patient. Modifying stomal care may be necessary in the setting of radiation, such as managing stomatitis and treating significant constipation, as well as peristomal skin changes that could affect the pouch adhering to the abdomen. Side effects of chemotherapy may include diarrhea and skin irritation or dermatitis in the peristomal skin area. We can offer solutions for these complications and help cancer patients improve their quality of life.

Social Work

Clinical Social Work provides comprehensive psychosocial services to cancer patients and their families, with linkage to community resources for ongoing psychosocial care, crisis support and financial services. Oncology social work services were provided to more than 600 patients and families in 2007 on the inpatient oncology unit as well as in the Cancer Treatment Center and Radiation Oncology. These services included counseling for end-of-life issues, advance care planning, financial issues and crisis services to newly diagnosed patients and their families.

Interdisciplinary oncology social work services include active participation and membership on many committees, including Integrative Medicine, Orientation Express and Conversations on Cancer programs, the hospital-wide Patient Satisfaction Committee, Survivorship Committee and the 5400 Unit Council. Community outreach and referrals include collaborative activities with Stewart's Caring Place and the Patient Navigator program with the American Cancer Society.

A master of social work practicum was supervised by the oncology social worker. The National Comprehensive Cancer Network's Distress Management guidelines were implemented in the Cancer Treatment Center, which served to provide assistance to patients experiencing psychological, environmental, financial or family needs.

Our membership in the Northeast Ohio Oncology Social Work Society promotes best practices and standards for delivering oncology social work services.



Spiritual Care

Chaplains visit the McDowell Cancer Center each day and are available at all times to minister to the spiritual and emotional needs of patients and families. In 2007, six chaplains oversaw visits to the Cancer Center. Spiritual care is an integral part of patient care here, and our chaplains not only attend to current needs but also help patients move toward survivorship.

Volunteer Services

Hospital volunteers contributed 57,691 hours of service in 2007 to support the mission of improving the health and lives of our patients and community. We are truly fortunate and grateful to have people who volunteer at Akron General because they or a family member were a patient and they want to give back. Volunteers provide services and support in the inpatient unit, the outpatient setting, cancer registry and in the cancer research program.

Community Outreach

Data from the National Research Corporation show that Summit County residents perceived Akron General as the hospital with the best community health programs for the 2006-2007 period. More than 14 hospitals were ranked in the perception survey, which also ranked a number of other image/quality factors.

Akron General's own Muffins for Mammograms program provided screening mammograms for 438 uninsured women in 2007. We also were a major provider of the breast and cervical cancer screenings for the Pink Ribbon Project (Breast and Cervical Cancer Project) of the Ohio Department of Health. In 2007, 520 services were provided to 205 clients through this program.

Two new programs to screen the uninsured for health issues, including cancer, were initiated in 2007. Three *Men's Health Tune Up* events and two *Women's Health Makeovers* were held in the community. All participants received blood pressure, cholesterol and glucose testing. In addition, women who qualified based on American Cancer Society guidelines received mammograms, pap smears and osteoporosis heel screenings. For men who qualified, prostate and colorectal cancer screenings were provided. Individuals who did not have a primary care physician were linked to Healthy Connections Network's Access to Care, another community health initiative in which Akron General is integrally involved. Program locations included the Summit County Health Department's Lakemore Clinic, Akron Community Health Resources Clinic and Akron General's Center for Family Medicine.

The McDowell Cancer Center staff continues to meet the needs of groups and organizations through the Akron General Speaker's Bureau. Popular topics include breast health, skin cancer, colorectal cancer and prostate cancer. Staff also promote reducing the risk of skin cancer through community talks on sun safety. They use a special ultraviolet camera to take photos of attendees to demonstrate the damage that has already been done to their skin by the sun, helping drive home the points made during the talk.

In 2007, Akron General offered free smoking cessation classes at its main campus and at the Akron General Health & Wellness Center - West. Funding for the program was provided by a grant from the Tobacco Prevention Control Foundation. Akron General is also a member of the Summit County Tobacco Prevention Coalition.

Akron General coordinated health screenings for three Neighborhood Community Health Fairs sponsored by the Summit County Minority Health Roundtable. The fairs were held at locations in low-income, high-need communities - East Akron Community House, Buchtel High School in West Akron and Barberton's U.L. Light Middle School. Screenings included blood pressure, cholesterol and glucose, as well as prostate screenings. McDowell Cancer Center information cards were provided on health issues.

Conversations on Cancer, now in its fourth year, provides an important forum for cancer survivors and their families to hear about health topics of interest to them. Topics in 2007 included fatigue and exercise, end-of-life issues, and lung and colorectal cancer.

As part of the Summit County Colorectal Cancer Coalition, Akron General supported the coalition's campaign, *Make Your Bottom Your Top Priority*. This campaign involved an initiative in which literature about colorectal cancer was distributed at area golf courses. A truck advertisement was also used to spread the word about colorectal cancer. The truck made appearances at events where large numbers of people were expected, such as Stow's Fourth of July Parade.

Professional Education

Joan Ashley Fiffick Memorial Lectureship in Nursing speakers included Catherine Handy, PhD, RN, AOCN, and Clinical Nurse Specialist, Pain and Palliative Care, St. Vincent's Comprehensive Cancer Center, New York, who presented "Nanotechnology and Cancer" and Robert M. Arnold, MD, Professor in the Division of General Internal Medicine and Chief, Palliative Care and Medical Ethics, University of Pittsburgh Medical Center, who presented "End of Life Conversations."

Philanthropy

Philanthropy has played an important part in the growth and development of the cancer treatment services provided at Akron General. Beginning with the first inpatient unit (9100), contributions have supported professional education, clinical research, screening services, community screenings and many related programs.

Contributions have now totaled in the millions, and it is impossible to count the number of patients and families whose lives have been touched because someone cared. Akron General is proud of the legacy that our "family and friends" have established. Through community support, we are making a difference in many lives.

Philanthropy activities in 2007:

- Education continued to be a large focus of the Akron General Development Foundation. The annual Day of Oncology is central to our continuing education programs. The Herbert E. Croft, MD, James M. Perelman and Joan Ashley Fiffick Visiting Professorship programs attracted more than 200 health professionals from around the region.
- The Breast Health Center is now open, bringing all breast disease services into one central location. In addition, three breast fellows have completed training and the fellowship continues through the support of the Foundation.
- Funds have been raised through several annual events, memorial contributions and directed donations. Fundraising events held in 2008 include:
 - 8th Annual Grape Escape Wine and Food tasting event
 - 8th Annual Dolores Sawan Family Fun Day and Walk for Ovarian Cancer
 - WQMX's Bosom Buddies Concert benefiting Muffins for Mammograms
 - 16th Annual Janell B. Izzo Golf Tournament
- Early detection of Breast Cancer through the Muffins for Mammograms Program entered its 16th year of supporting free exams for women in financial need. We provided 222 mammograms from Jan. 1 to June 30, 2008.
- We also used grant money and philanthropic gifts for many ventures, including offering follow-up treatment for those diagnosed with breast disease, providing camisoles to mastectomy patients as well as other medications, medical equipment and supplies. Events were held offering prostate and colorectal screenings.
- We partner with the State of Ohio Coalition for Cancer, the American Cancer Society and the Susan G. Komen Foundation.



The Breast Health Center lounge is very home like and comfortable for patients.



Department of Radiation Oncology Chair, Mitchel L. Fromm, MD, stands in front of the new IGRT system.

Data Summary 2007

The mission of the McDowell Cancer Center's Cancer Registry is to encourage systematic lifetime re-examination of all cancer patients and to provide statistics on collected data to staff physicians for research and educational evaluation. The primary goal of the Registry is to monitor all types of cancer diagnosed and/or treated at Akron General. The maintenance and collection of accurate data is a useful tool for administrative planning of hospital resources and staff. The computer software of IMPAC Medical Services, Inc. provides an efficient method for entering all data collected.

In 2007, 1,198 patients with malignancies were entered into the Registry database of approximately 18,485 patients, with an average overall follow up rate of 96.4%. The follow up rate for the past five years was 97.9%. The **Primary Site Table** displays a breakdown by sex, class of case and protocol accrual of these cases. There were 1,097 (91.6%) analytic cases and 101 (8.4%) non-analytic cases; 657 (54.8%) of which were females and 541 (45.2%) of which were males. The distribution by race was 1,047 (87.4%) white, 119 (9.9%) black American and 32 (2.7%) other. The majority of patients, 775 (64.7%), were in the 60-90+ age range.

During 2007, the largest analytic categories identified by the Registry staff were:

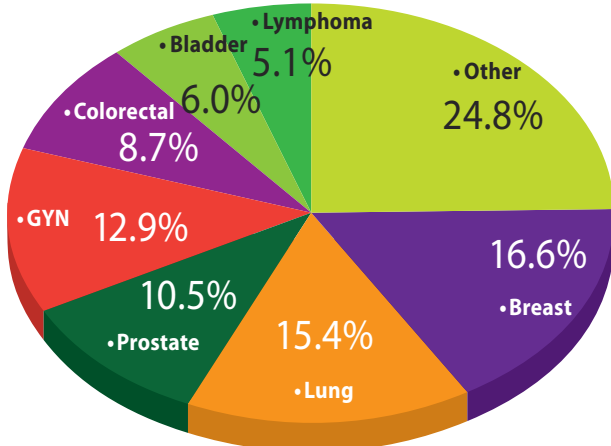
- Breast - 182 (16.6%) cases;
- Lung - 169 (15.4%) cases;
- Prostate - 115 (10.5%) cases;
- Gynecology - 142 (12.9%) cases;
- Colorectal - 95 (8.7%) cases
- Bladder - 66 (6.0%) cases;
- Lymphoma - 56 (5.1%) cases (see **Graph 1**).

The data comparison presented in **Graph 2** is taken from Akron General and A Cancer Journal for Clinicians, Cancer Statistics 2008.

The major counties served by the Cancer Program at Akron General in 2007 were:

- Summit - 850 (71%) patients;
- Medina - 82 (6.8%) patients;

GRAPH 1 2007 Top Analytic Sites Akron General=1097

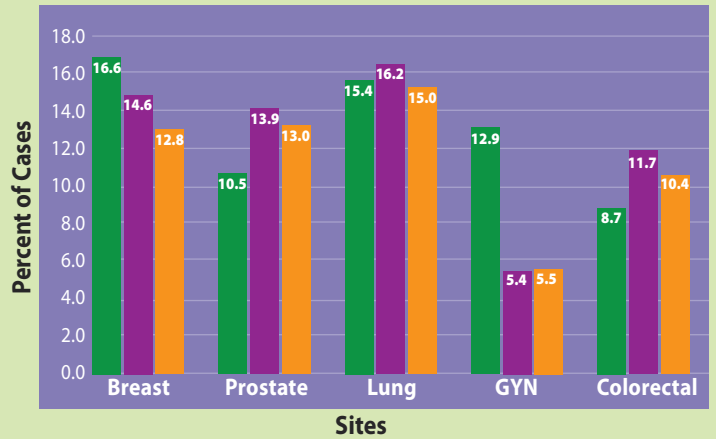


GRAPH 2

2007 Major Site Comparison

Akron General vs. Ohio vs. USA

■ Akron General = 1,097 ■ Ohio = 55,880 ■ USA = 1,437,180



References: Akron General 2007 Cases; Ohio Cancer Facts & Figures 2007; A Cancer Journal for Clinicians, March/April 2008. Vol 58/No.2

- Stark - 73 (6.1%) patients;
- Portage - 59 (4.9%) patients;
- Wayne - 53 (4.4%) patients.

The quality assurance review by the Akron General Cancer Committee documented a 97.6% rate of completeness and accuracy. The Akron General Department of Pathology incorporates the pathologic stage as a part of its reports on all appropriate cases. This effort, combined with the required staging by the managing physician, meets the standard set by the Commission on Cancer. In 2007, 15.2% of all analytic cases were reviewed for complete and accurate AJCC staging and a 96.9% rate was achieved. The overall analytic breakdown by stage was:

- Stage 0 - 89 (8.1%);
- Stage I - 285 (26.0%);
- Stage II - 248 (22.6%);
- Stage III - 170 (15.5%);
- Stage IV - 200 (18.2%).

Each month, Registry data are submitted to the Ohio Cancer Incidence Surveillance System at the Ohio Department of Health, to comply with the state law that cancer is a reportable disease. As a Teaching Hospital Cancer Program accredited by the Commission on Cancer of the American College of Surgeons, Akron General's Cancer Registry also submits data yearly to the National Cancer Data Base.

Continuing education is a priority for the Cancer Registry Staff. At least one registrar attends the National Cancer Registrar's Association Annual Meeting. This year's meeting, "Twin Goals: Educating & Advocating for Cancer Registrars," was held in Minneapolis. The registrars also attend the annual Ohio Cancer Registrar's Association educational meeting and various webinars to further their education.

CANCER REGISTRY STAFF

Coleen DeSalvo, CTR,
Coordinator

Hannah Carr, CTR,
Coding Technician
Victoria Rae, BA, CTR,
Coding Technician/
Follow-up Specialist

DEFINITION OF TERMS

CLASS of CASE

Analytic Patients

who were first diagnosed and/or received all or part of their first course of treatment at Akron General.

Non-Analytic Patients

diagnosed before the reference date of the registry, or diagnosed and treated at another facility or diagnosed at autopsy.

Review Board -

IRRB-Institutional Research Review Board

STAGE

"Manual for Staging of Cancer," Sixth Edition: American Joint Committee on Cancer, J. B. Lippencott Co., Philadelphia, 2002.

American Cancer Society, A Cancer Journal for Clinicians

PRIMARY SITE TABLE

2007 Primary Site Incidence Report

	Total Cases	Male	Female	Analytic	Non Analytic	Clinical Trials		Total Cases	Male	Female	Analytic	Non Analytic	Clinical Trials
HEAD & NECK SITES							BREAST						
Lip	0	0	0	0	0	0	188	1	187	182	6	93	
Tongue	5	3	2	4	1	0	FEMALE ORGANS						
Salivary Glands	6	3	3	6	0	0	Cervix Uteri	11	0	11	11	0	0
Floor of Mouth	1	1	0	0	1	0	Corpus Uteri	80	0	80	78	2	21
Gum & Other Mouth	4	1	3	3	1	0	Uterus, NOS	0	0	0	0	0	0
Nasopharynx	1	0	1	1	0	0	Ovary	42	0	42	40	2	4
Tonsil	6	6	0	5	1	1	Vagina	2	0	2	2	0	0
Oropharynx	1	1	0	1	0	0	Vulva	9	0	9	9	0	0
Hypopharynx	1	1	0	1	0	0	Other Female	2	0	2	2	0	0
Other Oral Cavity & Pharynx	0	0	0	0	0	0	Genital						
Total Head & Neck	25	16	9	21	4	1	Total Female Organs	146	0	146	142	4	25
DIGESTIVE SYSTEM							MALE ORGANS						
Esophagus	9	6	3	8	1	0	Prostate	155	155	0	115	40	14
Stomach	10	3	7	10	0	2	Testis	7	7	0	7	0	0
Small Intestine	3	1	2	3	0	0	Penis	1	1	0	1	0	0
Cecum	22	7	15	22	0	2	Other Male	0	0	0	0	0	0
Appendix	2	2	0	2	0	0	Genital Organs						
Ascending Colon	20	8	12	20	0	1	Total Male Organs	163	163	0	123	40	14
Hepatic Flexure	3	2	1	3	0	2	GENITOURINARY						
Transverse Colon	10	3	7	10	0	0	Urinary Bladder	77	57	20	66	11	0
Splenic Flexure	2	2	0	2	0	0	Kidney & Renal Pelvis	46	28	18	44	2	0
Descending Colon	3	2	1	2	1	0	Ureter	2	2	0	2	0	0
Sigmoid Colon	10	6	4	8	2	1	Other Urinary Organs	1	0	1	1	0	0
Large Intestine, NOS	4	3	1	3	1	0	Total Genitourinary System	126	87	39	113	13	0
Rectosigmoid Junction	8	4	4	8	0	6	EYE & ORBIT						
Rectum	15	10	5	15	0	5		1	0	1	1	0	0
Anus, Anal Canal, Anorectum	5	0	5	5	0	0	CENTRAL NERVOUS SYSTEM						
Liver	3	2	1	3	0	0	Brain	26	14	12	22	4	5
Intrahepatic Bile Duct	0	0	0	0	0	0	Cranial Nerves	4	0	4	4	0	0
Gallbladder	1	0	1	1	0	0	Total Central Nervous System	30	14	16	26	4	5
Other Biliary	4	2	2	4	0	0	ENDOCRINE SYSTEM						
Pancreas	22	6	16	21	1	0	Thyroid	17	6	11	17	0	0
Retroperitoneum	1	0	1	1	0	0	Other Endocrine, Including Thymus	2	0	2	2	0	0
Peritoneum, Omentum, Mesentery	3	1	2	3	0	0	Total Endocrine System	19	6	13	19	0	0
Other Digestive Organs	0	0	0	0	0	0	LYMPHOID SYSTEM						
Total Digestive System	160	70	90	154	6	19	Hodgkin Disease	5	1	4	4	1	0
RESPIRATORY SYSTEM							Non-Hodgkin Lymphoma	40	25	15	37	3	0
Nose, Nasal Cavity	1	1	0	0	1	0	Extra Nodal Lymphoma	18	6	12	15	3	0
Larynx	7	4	3	7	0	1	Total Lymphoid System	63	32	31	56	7	0
Non-Small Cell Lung	141	86	55	136	5	9	HEMATOPOIETIC/RETICULO						
Small Cell Lung	34	15	19	33	1	2	Leukemia	15	6	9	14	1	1
Trachea, Mediastinum	0	0	0	0	0	0	Myeloma	9	4	5	7	2	0
Total Respiratory System	183	106	77	176	7	12	Total for Hemato/Reticulo	24	10	14	21	3	1
BONES & JOINTS							OTHER						
	3	2	1	3	0	0	Mesothelioma	1	0	1	1	0	0
SOFT TISSUE - AND HEART							Kaposi Sarcoma	0	0	0	0	0	0
	14	7	7	14	0	0	Unknown Primary	22	12	10	21	1	0
SKIN							Total Other	23	12	11	22	1	0
Melanoma	26	13	13	23	3	0	ACCUMULATIVE TOTAL						
Non-melanoma skin	4	2	2	1	3	0	1198	541	657	1097	101	170	
Total Skin Sites	30	15	15	24	6	0							

Site Analysis: Non-Small Cell Lung Cancer

Lung cancer continues to be a common malignancy in the United States, second only to prostate cancer in men and breast cancer in women. The American Cancer Society estimates that in 2008, more people will die of lung cancer than of colon, breast



Robert G. Netzley, MD
Thoracic & Vascular
Surgery
Chair, Lung
Subcommittee

and prostate cancers combined. Lung cancer is the leading cause of cancer death in both men and women.

Two-thirds of patients who are diagnosed with lung cancer in the United States are 65 years of age or older. Estimated survival rates are based on cancer staging (extent of cancer involvement).

Non-small cell lung cancer constitutes 85 to 90 percent of all lung cancer. About 85 percent of lung cancers are thought to be smoking-related, either active or passive. The U.S. EPA reports that radon (naturally occurring radioactive gas) is probably the second leading cause of lung cancer, especially in non-smokers. Diesel exhaust, vinyl chloride, some chest wall radiation treatment and other chemical/mineral

exposures also are known to increase lung cancer risk.

Recent research indicates some familial basis for lung cancer. DNA changes in the 6th chromosome are being studied as potential risks for lung cancer development.

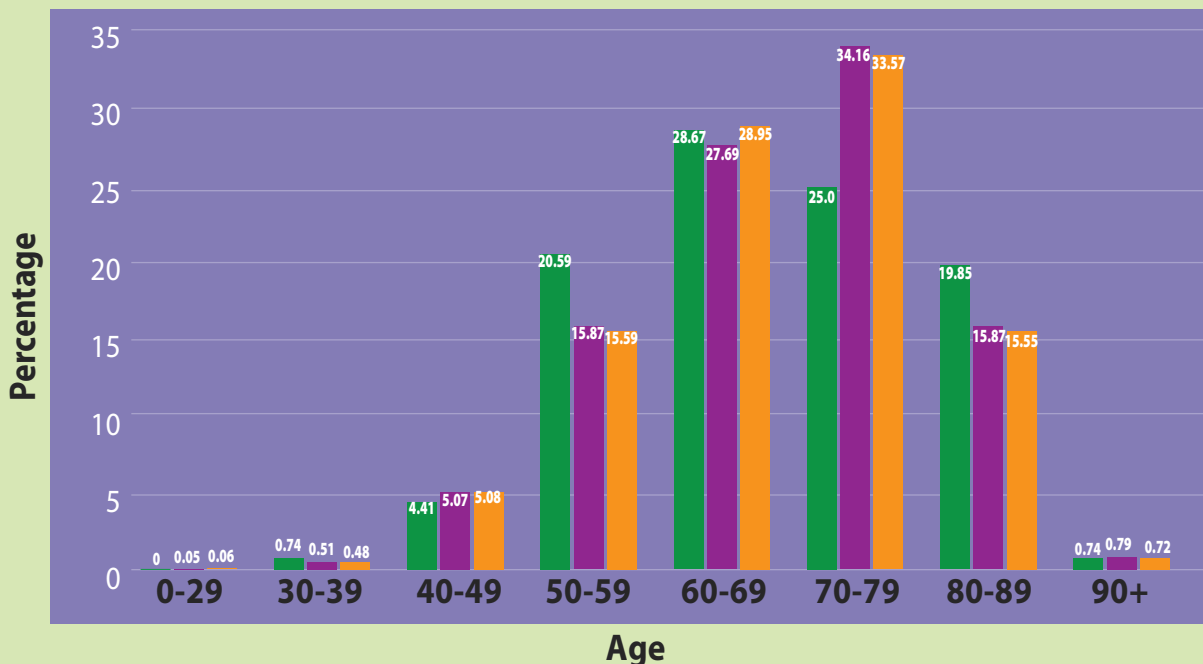
Symptoms can include cough, chest pain, shortness of breath, hoarseness and wheezing. Coughing up blood, unexplained weight loss, loss of appetite, unexplained fever and persistent pneumonia or bronchitis also can be warning signs.

Diagnosis is pursued typically after a chest X-ray or CT scan indicates an abnormality. No screening exam or study has been found to be effective for early detection to date. Sputum cytology, bronchoscopy,

(continued on page 14)

FIGURE 1 Non-Small Cell Lung Cancer Age at Diagnosis

Akron General = 136 Ohio = 6,334 NCDB = 111,109



Resources: Akron General analytic cases 2007 NCDB Benchmark Reports, v9.0

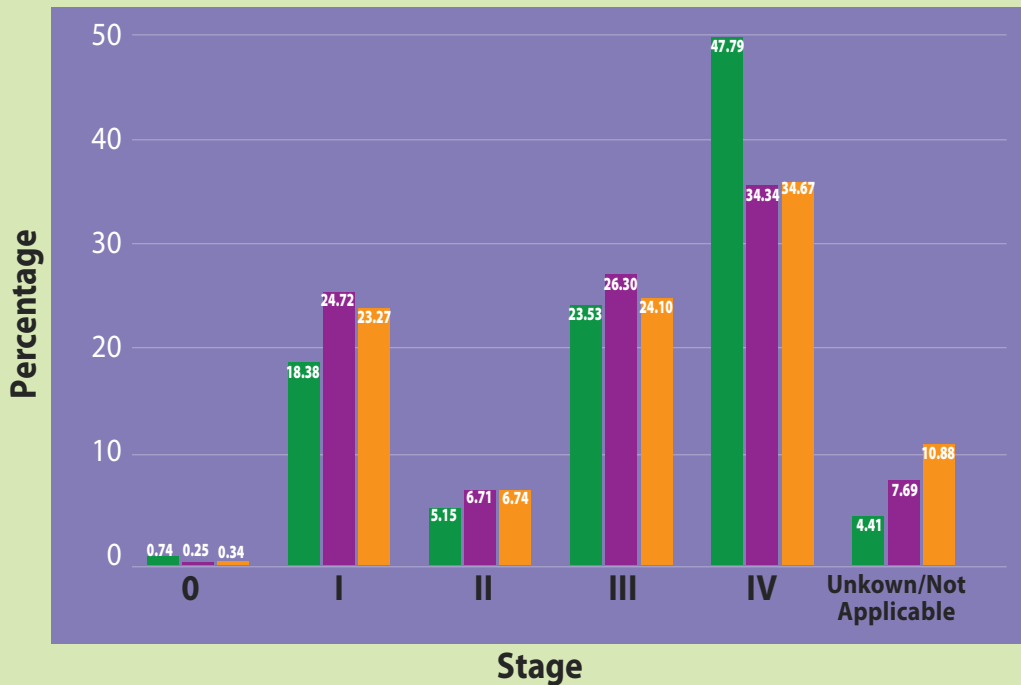
June 25, 2008

Figure 1 shows the age groups at which Non-Small Cell lung cancers are diagnosed. Akron General is compared to Ohio and the National Cancer Data Base figures for 2007. Diagnosis most typically occurs in patients who are 60 or older.

FIGURE 2

Non-Small Cell Lung Cancer Stage at Diagnosis

Akron General = 136 Ohio = 6,334 NCDB = 111,109



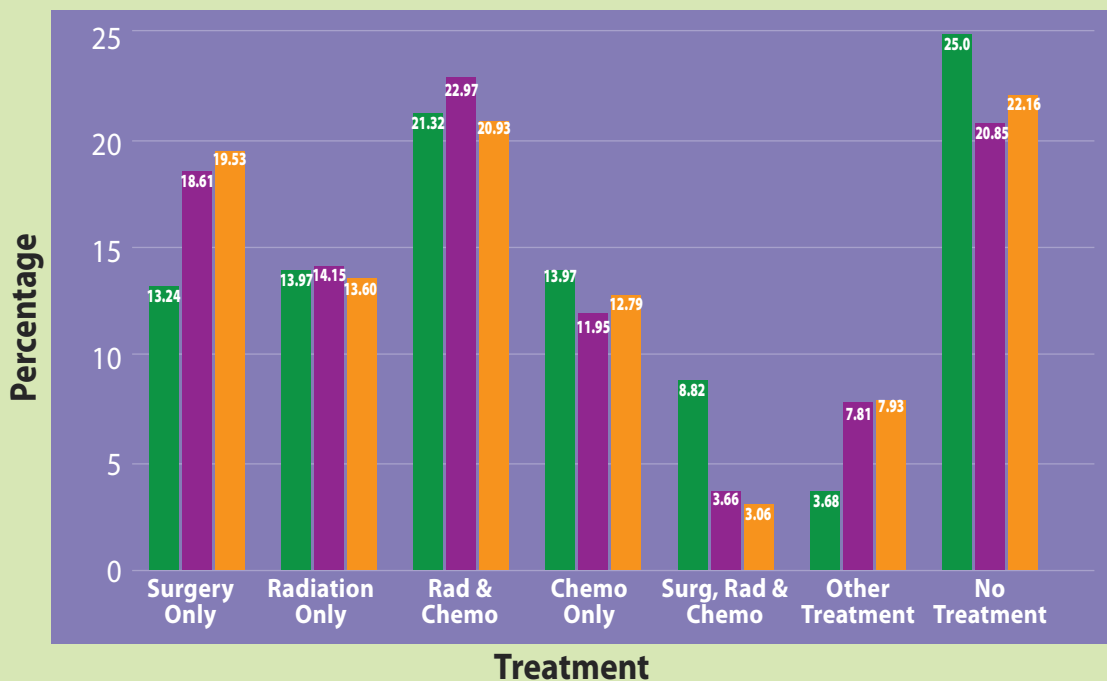
Resources: Akron General analytic cases 2007 NCDB Benchmark Reports, v9.0 June 25, 2008

Figure 2 shows 2007 figures for cancer staging at the time of diagnosis; smaller or early stage cancers start at Stage I and run the spectrum to more aggressive or advanced cancers at Stage IV.

FIGURE 3

Non-Small Cell Lung Cancer Treatment at Diagnosis

Akron General = 136 Ohio = 6,334 NCDB = 111,109



Resources: Akron General analytic cases 2007 NCDB Benchmark Reports, v9.0

June 25, 2008

Figure 3 displays data from 2007, indicating treatment options to patients with Non-Small Cell lung cancer. Single therapy and combination therapy are offered at Akron General, which is compatible with national standards.

needle aspiration or surgical biopsy may be needed to confirm the diagnosis. Additional studies such as positron emission tomography (PET) and magnetic resonance imaging (MRI) are useful in the staging evaluation. Invasive procedures may be needed for lymph node evaluation. Final staging is essential in determining the

appropriate therapies for a given patient. Treatment of non-small cell lung cancer may involve a combination of therapies, including radiation, chemotherapy and surgery. Surgical treatment remains the standard for cure, though postoperative chemotherapy has shown important

additional improvement in survival in many stages.

Many patients are not candidates for surgery due to other medical problems or advanced disease. For these patients, radiation therapy with or without chemotherapy can greatly improve survival.

Non-Small Cell Lung Cancer Treatment by American Joint Committee on Cancer Stage

FIGURE 4

Akron General vs. Ohio vs. NCDB

	Stage I			Stage II			Stage III			Stage IV			Unknown		
	Akron General	OHIO	NCDB	Akron General	OHIO	NCDB	Akron General	OHIO	NCDB	Akron General	OHIO	NCDB	Akron General	OHIO	NCDB
Surgery Only	48.0%	58.1%	61.1%	0.0%	24.5%	28.5%	6.3%	6.0%	6.0%	3.1%	1.1%	1.7%	0.0%	7.4%	12.3%
Radiation Only	12.0%	10.2%	8.7%	28.6%	9.9%	8.8%	6.3%	10.9%	11.4%	16.9%	20.7%	20.3%	25.0%	12.5%	10.4%
Rad & Chemo	16.0%	5.5%	4.7%	0.0%	14.3%	13.7%	34.4%	39.8%	36.7%	20.0%	27.2%	25.3%	0.0%	10.9%	11.7%
Chemo Only	4.0%	2.6%	2.0%	0.0%	5.0%	4.3%	18.8%	12.0%	13.5%	18.5%	20.0%	21.2%	0.0%	12.1%	12.8%
Surg, Rad & Chemo	4.0%	3.1%	1.8%	28.6%	11.5%	9.5%	12.5%	6.2%	6.1%	7.7%	1.2%	1.1%	0.0%	0.8%	1.0%
Other Treatment	4.0%	11.7%	12.4%	14.2%	23.5%	24.4%	3.1%	7.4%	6.7%	3.1%	3.5%	3.9%	0.0%	2.7%	3.9%
No Treatment	12.0%	8.8%	9.3%	28.6%	11.3%	10.8%	18.8%	17.7%	19.6%	30.8%	26.3%	26.5%	75.0%	53.6%	47.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

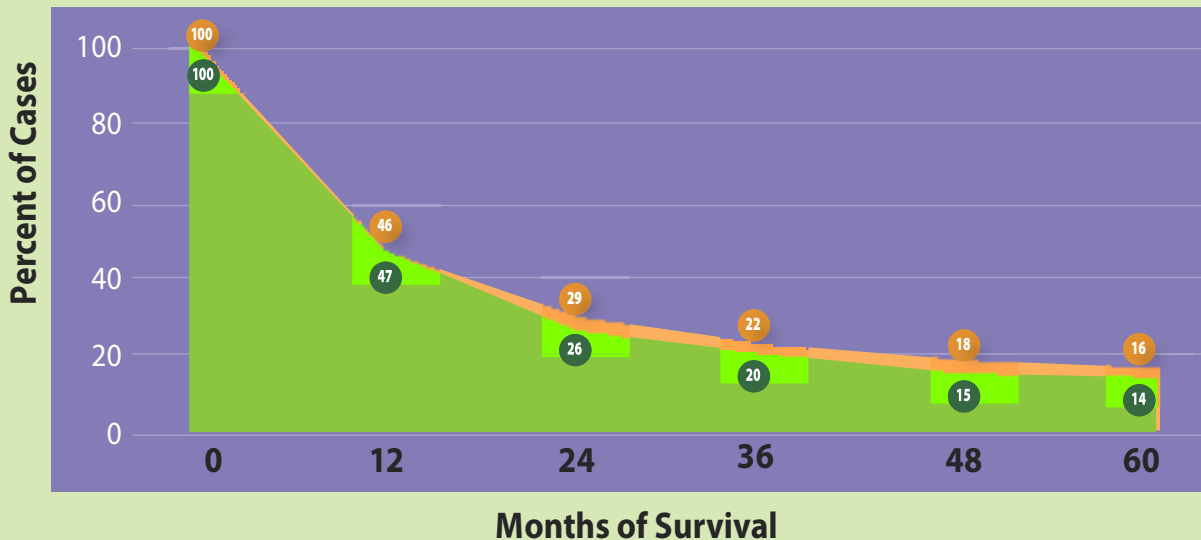
Resources: Akron General Non-Small Cell Lung Cancer analytic cases 2007 Commission on Cancer, NCDB, Benchmark Reports, v9.0 June 25, 2008

Figure 4 shows Akron General is following the most current guidelines in combining surgery with other treatment modalities for better outcomes in Stage 2 cancers.

FIGURE 5

Non-Small Cell Lung Cancer Overall Survival by Life Table

● Akron General = 136 ● Ohio = 6,334



Akron General NSCLC 1997-2002 NCDB Benchmark Reports, v9.0

June 25, 2008

Figure 5 shows overall survival rates for all patients diagnosed with lung cancer over a 5-year period. This includes all stages and age groups. (Akron General's outcomes closely mirror national "expectations.")

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 **AKRON GENERAL**
McDOWELL CANCER CENTER

Physician Office Building
224 W. Exchange St., Akron, OH 44302
330-344-HOPE (4673)
www.akrongeneral.org