

2011



CANCER PROGRAM ANNUAL REPORT

(2010 Statistical Data)



2010 Cancer Committee Members

Medical Oncology

Kamal Haider, M.D.
Sushma Nakka, M.D.
Fred Schreiber, M.D.
Antonio Trindade, M.D.

General Surgery/Oncology Surgery

Richard Boothby, M.D, Cancer Liaison Physician
Helen Chan, M.D.
Joseph Cody, M.D.
Elisabeth Dupont, M.D.
Manuel Molina-Vera, M.D.
Rakesh Patel, M.D.

Radiation Oncology

John Barrett, M.D.
Kris Guerrier, M.D.

Pain Management

M. Eldeeb, M.D.

Pathology

Ricardo E. Duque, M.D., Chairman

Diagnostic Radiology

Christian Schmitt, M.D

Administration

Janet Fansler, MS, RN, CENP, Senior Vice President/COO/
Chief Nurse Executive
Mary Ford, Vice President, CIO
Robin Stewart, RN, PhD, OCN, CCRC, Cancer Conference
Coordinator

Social Work/Case Management

Maria McKelvin, LCSW
Ann Lehman, BSW

Oncology Nursing

Donna Faviere, RN, MSN
Glenda Kaminski, PhD, RN, AOCN, CRNI
Norma Kelley, RN, BSN

Quality Improvement

Elaine Pachal, RN, Quality Improvement Coordinator

Oncology Data Services

Cindy Tillman, RHIT, CTR, Quality Control of Registry Data
Coordinator

Marketing

Amy Taylor, Community Outreach Coordinator

Other

Tony Garcia, MHS, OT, Director Rehabilitation Services
Jennie Gossett, Dietician, Registered Dietician

2011 Cancer Committee Members

Medical Oncology

Kamal Haider, M.D.
Sushma Nakka, M.D.
Fred Schreiber, M.D.
Antonio Trindade, M.D.

General Surgery/Oncology Surgery

Richard Boothby, M.D, Cancer Liaison Physician
Helen Chan, M.D.
Joseph Cody, M.D.
Elisabeth Dupont, M.D.
Manuel Molina-Vera, M.D.
Rakesh Patel, M.D.

Radiation Oncology

John Barrett, M.D.
Kris Guerrier, M.D.

Pain Management

M. Eldeeb, M.D.

Pathology

Ricardo E. Duque, M.D., Chairman

Diagnostic Radiology

Christian Schmitt, M.D.

Administration

Janet Fansler, MS, RN, CENP, Senior Vice President/COO/
Chief Nurse Executive
Mary Ford, Vice President, CIO
Robin Stewart, RN, PhD, OCN, CCR, Cancer Conference
Coordinator

Social Work/Case Management

Anne Frick, MSW,LCSW, ACM

Oncology Nursing

Donna Faviere, RN, MSN
Glenda Kaminski, PhD, RN, AOCN, CRNI
Norma Kelley, RN, BSN

Quality Improvement

Elaine Pachal, R.N. Quality Improvement Coordinator

Oncology Data Services

Cindy Tillman, RHIT, CTR, Quality Control of Registry
Data Coordinator

Marketing

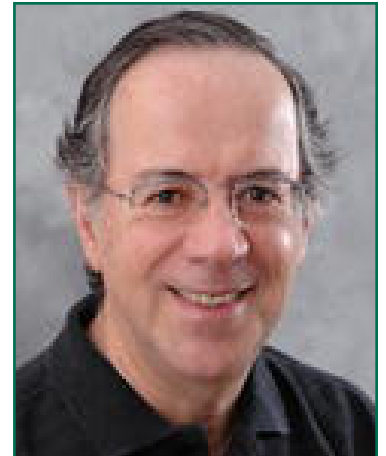
Amy Taylor, Community Outreach Coordinator

Other

Tony Garcia, MHS, OT, Director of Rehabilitation Services
Jennie Gossett, Registered Dietician

Chairman's Report

It is my pleasure to present the 2011 Oncology Program Annual Report. Lakeland Regional's Oncology Program has again seen many accomplishments and honors. Some highlights of these achievements include the following:



- Robin Stewart, RN, PhD, OCN, CCRC was named Oncology Nursing Certification Corporation's 2010 OCN® of the Year. This award recognizes an OCN® who has made significant contributions to oncology nursing and oncology nursing service; and who has supported and promoted oncology nursing certification. Currently, there are nearly 29,000 oncology certified nurses. Robin is LRCC's Manager of Clinical Research, where she is responsible for the oversight of all clinical trials and research. She has been in the nursing field for over 30 years and has been with LRCC since its opening in 2002. She is highly respected by her peers, patients, and physicians. Our Clinical Research Department has offered multiple trials to our patients that have never been offered anywhere else in the nation.
- The expansion of the Lakeland Regional Cancer Center (LRCC) opened in 2011. This expansion has enhanced our patient care by bringing all of LRCC's services back to one location, increasing the number of examination rooms, and allowing for more efficient multidisciplinary services for our patients.
- We continue to work closely with the American Cancer Society and other agencies to offer a variety of cancer support groups for patients and/or their significant others who wish to receive information and share experiences about cancer.
- Health screenings and educational programs directed toward improving the overall health status of our community were offered to the community and surrounding area, many sponsored as joint activities between Lakeland Regional Medical Center and other facilities, groups, and agencies in the community.
- Our multidisciplinary cancer conferences held on a weekly basis provide a professional arena to discuss the medical management of our patients. New treatment options, national standard of care, and research protocols available to our patients are also discussed. A new conference for hepatobiliary and gastrointestinal site-specific cases began in 2010. A site-specific prostate cancer conference has also been added.

The cancer services provided by LRMC, LRCC, and our physician practices throughout the community, including the Center for Care and Research, ensure both high quality and a variety of treatment choices for our patients. Our commitment to quality care remains the driving force behind our continued efforts to provide cutting edge cancer therapy for our patients.

We thank the members of our community, the medical staff, hospital staff, and administration for your ongoing support in our efforts to continually develop and enhance our cancer program.

Ricardo E. Duque, M.D.
Chairman Cancer Committee

Cancer Care Services

Lakeland Regional Medical Center, in conjunction with its outpatient cancer center (Lakeland Regional Cancer Center) and cancer research program, is home to some of the country's most sophisticated tools available in the fight against cancer. We work closely with the physicians throughout our community offering patients a wide range of diagnostic tools and treatment options in their fight against cancer.

SURGICAL, MEDICAL, GYNECOLOGIC, UROLOGIC ONCOLOGY

- Dedicated medical, surgical, and gynecological oncology inpatient units. Our dedicated medical oncology unit houses 44 beds with mostly private rooms for inpatient visits, and a short-stay room for outpatient blood transfusion services. The unit features a library filled with patient education resources and internet access plus a family lounge equipped with refrigerator and microwave for families and visitors.
- Outpatient medical, surgical, radiation, urology, and gynecological clinics located at our outpatient cancer center (Lakeland Regional Cancer Center).
- Oncology certified nurses available to enhance nursing care; all nurses who administer chemotherapy have completed national Oncology Nursing Society training.
- Oncology Clinical Nurse Specialist available for consultation
- A clinical pharmacist and clinical dietitian to assist with medication or nutritional concerns
- An outpatient short-stay room for patients requiring blood product transfusions or plasma pheresis
- Minimally invasive surgical techniques when appropriate
- Lymphatic mapping and sentinel lymph node biopsy
- Hyperthermic isolated limb perfusions (HILP)
- On-site minor procedure rooms
- Radiofrequency ablation
- Robotic surgery techniques using the da Vinci Surgical System
- A Palliative Care program to manage symptoms such as pain, nausea, shortness of breath, in collaboration with the physician to improve complex cases.
- Chemotherapy
- Immunotherapy
- Hormonal therapy
- Growth factor support
- Use of targeted biological agents
- Intravenous supportive therapy
- Bone marrow biopsy and aspirations
- Endoscopy
- Advanced early detection techniques
- Cryosurgical ablation

RADIATION ONCOLOGY

- CT simulation and treatment planning technology for external beam and HDR brachytherapy
- Linear accelerators featuring MultiLeaf Collimation (MLC) and digital portal imaging
- 3D conformal radiation therapy
- Intensity modulated radiation therapy (IMRT)
- Image-guided radiation therapy (IGRT) with on-board imager (OBI)
- Low dose rate intracavitary brachytherapy (including prostate brachytherapy)
- High dose rate (HDR) brachytherapy
- Accelerated partial breast irradiation (Mammosite, Contura, SAVI, 3-D external/IMRT)
- Concurrent neoadjuvant and adjuvant chemo-radiation therapy

CANCER SCREENING

- Mobile screening for skin, prostate, breast, colon and rectal cancers
- Screening mammograms
- Skin cancer screening
- Cervical cancer screening
- Colon cancer screening
- Prostate cancer screening

Cancer Care Services - continued next page

(Cancer Care Services - continued)

IMAGING SERVICES

- PET scan
- CT scan
- MRI
- Nuclear Medicine
- Image-guided breast biopsy
- Ultrasonography
- Mobile mammography services
- Screening and diagnostic mammography

MULTIDISCIPLINARY CANCER CONFERENCES

- Discussion of cases with an Oncology team that includes surgical oncology, medical oncology, radiation oncology, pathology, radiology, clinical trials research team, and nursing to assure the best possible treatment plan for each patient

LABORATORY SERVICES

- On-site laboratory services

PATHOLOGY SERVICES

- Provided by Lakeland Pathologists, PA

CLINICAL TRIALS

- Prevention and treatment clinical trials for all stages of cancer allowing our patients the ability to stay home in the Lakeland area without having to travel for extended periods of time to far-away cancer research facilities.

GENETIC TESTING AND COUNSELING

- Genetic testing for cancers including breast, ovarian, melanoma and colon
- Genetic counseling regarding a patient or family members' individual risk of carrying an inherited genetic mutation

BOUTIQUE

- Community educational programs
- Breast cancer patient consultations and fittings
- Specialty items including post-mastectomy swimsuits, turbans, scarves and jewelry

SUPPORT SERVICES

- Patient advocacy specialist
- Social worker
- Patient education
- Nutritional support
- Complementary medicine services
- Advanced directives
- Family support
- Community educational programs
- Cancer Dialogue, an open support group for patients and/or their significant others (age 18+) who wish to receive information and share experiences about cancer.
- Information on other support groups available throughout the community as well as through the American Cancer Society and the Leukemia & Lymphoma Society.

The LRMC Foundation— Touching Lives Through Philanthropic Support

The LRMC Foundation and the Lakeland Regional Cancer Center, the location of LRMC's outpatient Oncology Services, form a unique partnership that provides hope, research and support services to cancer patients in the Lakeland community, Polk County and the surrounding area. The LRCC healthcare team provides the day-to-day treatment and emotional support for the patients while the Foundation works to secure charitable gifts from the community to provide funds for a wide range of critical activities, equipment and education.

In this past year the Foundation:

- Continued efforts to raise funds for the Cancer Center and its programs. Also helped provide the special touches that make LRCC unique like a special blanket warmer for chemotherapy patients.
- Continued to offer the opportunity for family and friends to show their love and support to cancer patients and survivors by expanding the Windows of Hope Commemorative Giving Program. This unique stained glass display represents the flowers and wildlife of Florida and hangs in the chemotherapy treatment area at LRCC.
- Raised awareness of women's healthcare issues and charitable support through the Women In Philanthropy (WIP) program.
- Provided support for continuing clinical education for LRCC staff.
- Provided funding for the \$2.5 million Trilogy Linear Accelerator.



An additional feature of the partnership with the Cancer Center was the Foundation's underwriting of the Victorian Tea, Cancer Survivor's Day and community education. This support comes from the generosity of individuals, organization businesses and foundations. Almost 350 donors made over 5,800 gifts and donated \$50,000 to LRMC Foundation designated for LRCC in 2010.

Kenneth I. Menefee,
Executive Director, LRMC Foundation



Community Outreach 2010

LRMC/LRCC was represented at the following health fairs and community events via educational/promotional materials:

- Lakeland Junction Mobile Home Park (1/7/10)*
- Estates at Carpenter (1/13/10)
- Schalamar Creek (1/18/10)
- Cypress Lakes (2/4/10)
- Rooms To Go in Lakeland (2/10/10 & 2/11/10)
- Polk County School Board retiree health fair (2/12/10)
- Polk State College (2/12/10)
- Rooms To Go in Seffner (2/17/10 & 2/18/10)
- Hillsborough Community College (2/25/10)
- New Highlands Self Storage (3/1/10)*
- Polk County School Board (3/6/10)
- Polk County Leisure Services (3/13/10)
- Florida's Natural Growers (3/25/10)
- City of Winter Haven (4/16/10)
- Southern Wine & Spirits (5/5/10)
- State Farm (5/19/10)
- National Kidney Foundation of Florida, Kidney Early Evaluation Program (5/22/10)
- Tampa Maid Foods (6/22/10)
- Ben Hill Griffin (6/28/10)*
- Lazy Days RV Center (7/23/10)
- City of Auburndale (8/5/10)
- Florida Southern College (9/15/10)
- Coca Cola (9/20/10)
- JBT Food Tech (9/22/10)
- City of Haines City (10/2/10)
- Geico (10/6/10)
- Polk County School Board Food Services (10/9/10)
- Motorcycle Poker Run to benefit Susan G. Komen Breast Cancer Foundation (10/9/10)
- Making Strides Against Breast Cancer (10/16/10)
- Polk County Parks & Recreation (10/16/10)
- Polk County Government (10/28/10,10/29/10,10/30/10)
- ButterKrust Bakery (10/28/10)
- Pepperidge Farm (10/28/10)

Discussed availability of on-site cancer screenings with the following businesses:

- Lazy Days RV Center (July)

On-site cancer screenings and/or education for the following businesses:

- Coca Cola (9/20/10)

Lunch & Learn Presentations:

- Solange Pendas, M.D. presented "Partial Breast Irradiation Therapy" (6/14/10)
- Manuel Molina, M.D. presented "Sun Safety" (7/23/10)
- Solange Pendas, M.D. presented "Breast Pain" (10/7/10)

Presentations:

- Cynthia Brown, ARNP-BC, CCRN, CRNI presented "Cancer Prevention/Signs and Symptoms" to the Ridge Association of Health Underwriters held at Cleveland Heights Golf & Country Club. (2/23/10)Badcock. Glenda Kaminski, Ph.D. presented a talk on different types of cancer, prevalence of cancer in the area, and prevention of cancer (including nutrition, exercise, sun screen, screenings, etc) (9/23/09)
- Helen Chan, M.D. presented "Intra-abdominal Cancers" to Badcock employees. (3/16/10)
- Mark Bandyk, M.D. presented "The Robotic Surgery Revolution: A New Option for Urologic Surgery" (4/10/10)
- Manuel Molina, M.D. presented at "Hope Blooms" Cancer Survivors Day (6/6/10)
- Richard Boothby, M.D. & Chris Guerrier, M.D. presented "Stand Up to Cancer" (WTSP-TV) (9/10/10)
- Solange Pendas, M.D. & Richard Boothby, M.D. presented at LRCC's annual Victorian Tea community event
- Solange Pendas, M.D. presented "Screening for Breast Cancer" to Insurance professionals of Polk County. (10/25/10)

Community Outreach 2011

LRMC/LRCC was represented at the following health fairs and community events via education, health screenings and promotional materials:

- Schalamar Creek (1/17/2011)
- Beacon Terrace (1/19/2011)
- Polk State College Winter Haven (1/26/2011)
- Polk State College Lakeland (2/2/2011)
- Mas Verde Estates (2/2/2011)*
- Alzheimer's Association (2/17/2011)
- Rooms To Go Lakeland (2/17/2011)
- Rooms To Go Lakeland (2/18/2011)
- Rooms To Go Seffner (2/23/2011)
- Rooms To Go Seffner (2/24/2011)
- Polk County School Board – Lakeland (2/26/2011)
- USF PolyTechnic (3/21/2011)
- Social Worker's Celebration & CEU Event (3/24/2011)
- Florida's Natural Growers (4/7/2011)
- City of Winter Haven (4/8/2011)
- Polk County School Board – Haines City (4/30/2011)
- Southern Wine & Spirits (5/5/2011)
- Tampa Maid Foods (5/17/2011)
- USF PolyTechnic Men's Health Fair (6/21/2011)
- City of Auburndale (10/6/2011)
- Relay for Life, American Cancer Society (4/16 -17/2011)

Presentations:

- Dr. Mark Bandyk presented "Evolution of Robotic Surgery" to First Baptist Church at the Mall (1/9/2011)
- Dr. Mark Bandyk presented "Meet the Robot" to the community at LRMC B-Lobby (1/9/2011)
- MaryJane Seymour, MS, RN, BC; Mimi Jenko, MN, RN, CHPN; and Brian Hurley, presented "Heart of Caring" to the community at LRCC (2/5/2011)
- Riz Mir, PT presented "Pilates for Cancer Patients" to the community at LRCC (3/9/2011)
- Dr. Manuel Molina presented "Advances in Cancer

Care & Melanoma" to First Baptist Church at the Mall, (5/15/2011)

- Richard Boothby, M.D.; Jennifer Nixon, M.D.; and Richard Cardosi, M.D. presented "The Future of Women's Health to the community at LRMC Auditorium (5/26/2011)
- Dan Shapiro, PhD presented at LRCC's National Cancer Survivors Day (6/5/2011)
- Tee It Up For Men's Health, Cleveland Heights Golf & Country Club (9/10/2011)
- Shahla Masood, M.D. presented "Changing Trends in Breast Cancer Diagnosis and Therapy and Martha Lima, M.D. presented "New Technology: The Latest on PEM" at the annual Victorian Tea (10/7/2011)
- Mark Bandyk, M.D.; James Belarmino, M.D.; Jens C. Carlsen, D.O.; Graham Greene, M.D. presented "Man Meets Robot" to the community at LRMC Auditorium (10/27/11)

Lunch and Learn Presentations:

- Glenda Kaminski, PhD, RN, AOCN, CRNI presented "Making the Right Choices to Reduce Cancer Risk" to:
- Mosaic – Mulberry (6/2/2011)
- Mosaic – Bartow (7/18/2011)
- Mosaic – Four Corners (7/28/2011)
- Mosaic – Hookers Prairie (7/29/2011)
- Mosaic – S. Fort Meade (8/1/2011)

CME and CE:

- Cancer Conference (Recurring weekly 2011)
- Annual Urologic Symposium (January 2011)

***Provided educational/promotional materials only.**

Oncology Data Services Update

Oncology Data Services collects data on cancer cases that are diagnosed and/or treated at Lakeland Regional Medical Center that includes demographic, cancer identification (primary site, histology, stage of disease, treatment), and follow-up data. This information is reported to the Florida Cancer Data System (FCDS) and the National Cancer Database (NCDB). These organizations use the data as a clinical surveillance mechanism to review patterns of care, outcomes, and survival.

A total of 2,719 cases were accessioned into the database in 2010, 2,017 (74%) of which were analytic. Since its inception in 1987 (the cancer program reference date), a total of 52,594 primary cancers have been accessioned into the database, 38,558 (73%) of the cases being analytic. Annual lifetime follow-up is performed on the analytic patients. Ongoing follow-up benefits the patient by reminding them that routine medical examinations are recommended to ensure early detection or recurrence or new primary malignancies and benefits physicians by potentially bringing lost patients back under medical supervision. In addition, the follow-up information is used to compare outcome results with regional, state, and national standards. In 2010, the successful follow-up rate for both the total database as well as the cases diagnosed within the last five years exceeded the Commission on Cancer requirements.



Our data is not only reported to the Florida Cancer Data System (FCDS) and National Cancer Data Base (NDCB) but is utilized by the medical staff, administration, other hospital departments, at cancer conferences, in our annual report, and by other cancer registries. In addition, specifics about the cancer services offered by our facility as well as our research activities and structure of our cancer program are provided to the American College of Surgeons, the American Cancer Society, and the Association of Community Cancer Centers. Multidisciplinary CME-approved cancer conferences are held weekly to discuss the management of our cancer patients. Educational programs (some for physicians and employees and some which are open to the public) are presented on various cancer-related topics throughout the year.

We would like to express our appreciation to the cancer committee, administration, medical staff, hospital staff, and the community for their continued support throughout the year. This support has enabled us to maintain successful accreditation of the cancer program by the Commission on Cancer of the American College of Surgeons since 1989.

*Cindy Tillman, RHIT, CTR
Manager, Oncology Program & LRCC HIMS*

Data Summary 2010

Analytical Primaries

Top Sites

The top five sites (analytic cases only) at Lakeland Regional Medical Center were lung, breast, prostate, skin (excluding basal and squamous cell of non-reportable sites), and colon. A comparison of incidence at our facility as compared to Florida and nationally is displayed below (Table 1). The top five sites comprise 56% of the total analytic caseload for the year.

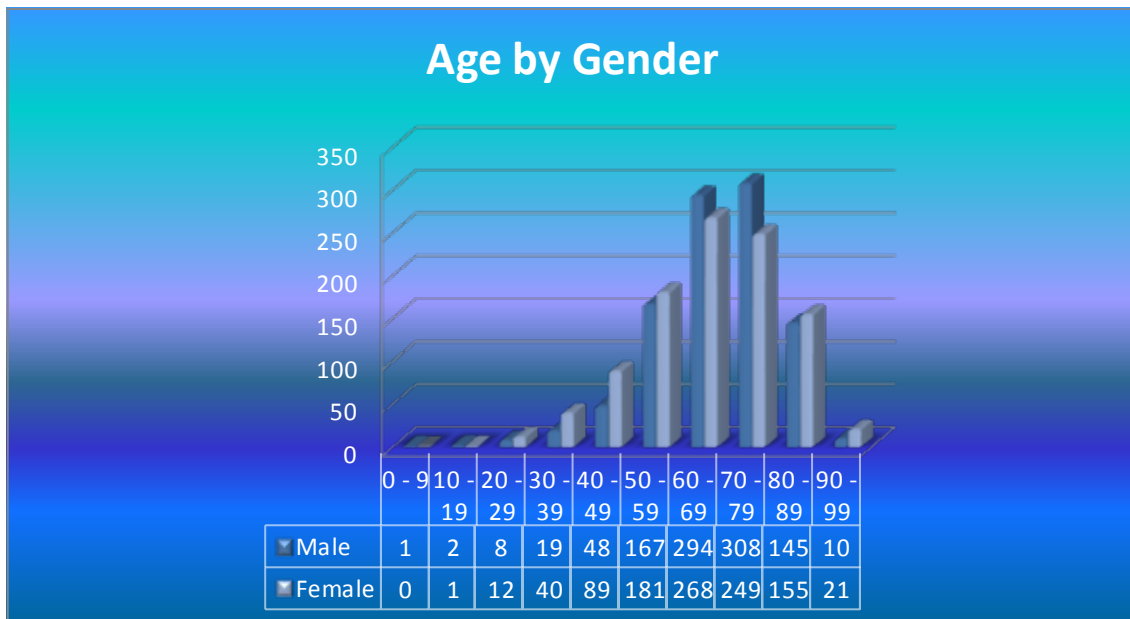
Table 1:

	LRMC		FLORIDA		U.S.	
All Sites	2,019		107,000		1,529,560	
Lung	291	14%	18,390	17%	222,520	15%
Breast	229	11%	14,080	13%	209,060	14%
Prostate	220	11%	14,610	14%	217,730	14%
Skin	170	8%	4,980	5%	74,010	5%
Colon	141	7%	10,500	10%	102,900	7%

Age & Gender

Of the 2,019 analytic cases, 1,003 (49% were males and 1,016 (50%) females. The age distribution table below (Table 2) reveals that the majority of patients were diagnosed between the ages of 70-79.

Table 2:



Race & Ethnicity

Race distribution reveals that 1826 (90%) of the patients were Caucasian, 165 (8%) African American, and 28 Other (a combination of Asian, Oriental, and Other). Evaluation of ethnicity reveals that approximately 1944 (96.3%) of the analytic cases were non-Spanish, 48 (2.4%) were Spanish/Hispanic NOS, 9 (0.4%) Mexican, 5 (0.2%) Cuban, 4 (0.2%) Unknown whether Spanish or not, 3 (0.1%) Puerto Rican, 2 (0.1%) South/Central American (not Brazil), 2 (0.1%) Other Spanish, and 1 (0.05%) Spanish Surname Only.

County of Residence at Diagnosis

Analysis reveals that the top five county of residence at diagnosis were Polk, Hillsborough, Highlands, Pasco, and Hardee. A detailed breakdown is shown below.

Table 3:

COUNTY OF RESIDENCE AT DX	VOLUME
POLK	1673
HILLSBOROUGH	107
HIGHLANDS	50
PASCO	39
HARDEE	30
OUT OF STATE	19
LAKE	18
ORANGE	14
OSCEOLA	11
PINELLAS	10
BREVARD	6
MANATEE	6
INDIAN RIVER	3
SARASOTA	3
HERNANDO	3
MARTIN	3
CITRUS	3
COLLIER	2
DUVAL	2
ST LUCIE	2
VANBUREN	2
VOLUSIA	1
SEMINOLE	1
HENDRY	1
OKEECHOBEE	1
BROWARD	1
LEE	1
COLUMBIA	1
BRADFORD	1
DESOTO	1
SUMTER	1
GLADES	1
PALM BEACH	1
PUTNAM	1

Treatment

Treatment analysis reveals that 682 (34%) received some form of multi-modality therapy, 1,014 (50%) received some form of single-modality therapy, and 323 (16%) had no definitive therapy or had observation only documented. A detailed breakdown can be seen in Table 4.

Table 4:

TREATMENT	INCIDENCE RATE
None/Observation	323 (16%)
Single Modality Therapy	1014 (50%)
• Surgery Only	762
• Radiation Only	73
• Hormone Therapy Only	24
• Chemotherapy Only	151
• Immunotherapy Only	2
• Other Treatment Only	2
Multi-Modality Therapy	682 (34%)

AJCC Stage at Diagnosis

AJCC staging analysis of the analytic cases reveals that the majority of cases were diagnosed at Stage I. A detailed breakdown is shown in Table 5.

Table 5:

AJCC STAGE AT DX	VOLUME	%
0	191	9%
I	516	26%
II	411	20%
III	301	15%
IV	347	17%
Unknown	56	3%
No applicable staging	194	10%

Table 6:

Primary Site by Stage Gender - Analytic 2010

PRIMARY SITE	TOTAL	STAGE								
		M	F	0	I	II	III	IV	UNK	N/A
ALL SITES	2017	1001	1016	191	517	411	301	347	56	194
ORAL CAVITY	41	34	7	0	5	7	4	24	1	0
TONGUE	15	15	0	0	1	3	2	9	0	0
OROPHARYNX	4	3	1	0	0	1	0	3	0	0
OTHER	22	16	6	0	4	3	2	12	1	0
DIGESTIVE SYSTEM	351	177	174	46	64	72	69	75	11	114
ESOPHAGUS	30	26	4	0	4	7	5	7	7	0
STOMACH	13	8	5	0	2	2	1	5	0	3
COLON	139	65	74	33	22	30	32	20	2	0
RECTUM	60	24	36	9	20	9	11	8	2	1
ANUS/ANAL CANAL	8	3	5	2	1	2	2	1	0	0
LIVER	19	13	6	0	9	2	6	2	0	0
PANCREAS	56	27	29	1	4	15	10	26	0	0
OTHER	26	11	15	1	2	5	2	6	0	10
RESPIRATORY SYSTEM	311	178	133	2	75	19	75	128	7	5
NASAL/SINUS	1	1	0	0	0	0	1	0	0	0
LARYNX	15	13	2	1	3	2	3	5	0	1
LUNG/BRONCHUS	291	162	129	1	72	17	69	121	7	4
OTHER	4	2	2	0	0	0	2	2	0	0
BLOOD & BONE MARROW	83	39	44	0	0	0	0	0	0	83
LEUKEMIA	34	19	15	0	0	0	0	0	0	34
MULTIPLE MYELOMA	23	9	14	0	0	0	0	0	0	23
OTHER	26	11	15	0	0	0	0	0	0	26
BONE	1	1	0	0	0	0	0	0	1	0
CONNECTIVE/SOFT TISSUE	7	6	1	0	2	0	1	2	2	0
SKIN	170	101	69	33	88	19	16	8	3	3
MELANOMA	163	96	67	33	87	19	16	6	2	0
OTHER	7	5	2	0	1	0	0	2	1	3
BREAST	229	2	227	39	91	62	23	13	1	0
FEMALE GENITAL	174	0	174	10	17	11	40	24	4	8
CERVIX UTERI	22	0	22	0	10	1	7	4	0	0
CORPUS UTERI	88	0	88	0	57	5	14	4	2	6
OVARY	44	0	44	0	5	3	17	16	2	1
VULVA	18	0	18	9	5	1	2	0	0	1
OTHER	2	0	2	1	0	1	0	0	0	0
MALE GENITAL	237	237	0	0	1	181	20	20	15	0
PROSTATE	220	220	0	0	0	181	20	19	0	0
TESTIS	15	15	0	0	0	0	0	0	15	0
OTHER	2	2	0	0	1	0	0	1	0	0
URINARY SYSTEM	208	144	64	61	75	21	24	23	2	2
BLADDER	118	89	29	59	19	15	10	14	1	0
KIDNEY/RENAL	84	50	34	0	56	6	14	7	1	0
OTHER	6	5	1	2	0	0	0	2	0	2
BRAIN & CNS	41	16	25	0	0	0	0	0	0	41
BRAIN (BENIGN)	5	1	4	0	0	0	0	0	0	5
BRAIN (MALIGNANT)	19	10	9	0	0	0	0	0	0	19
OTHER	17	5	12	0	0	0	0	0	0	17
ENDOCRINE	51	13	38	0	20	8	7	2	4	10
THYROID	41	9	32	0	20	8	7	2	4	0
OTHER	10	4	6	0	0	0	0	0	0	10
LYMPHATIC SYSTEM	83	44	39	0	18	11	22	28	4	0
HODGKIN LYMPHOMA	8	4	4	0	1	2	5	0	0	0
NON-HODGKIN LYMPHOMA	75	40	35	0	17	9	17	28	4	0
UNKNOWN PRIMARY	21	6	15	0	0	0	0	0	0	21
OTHER/ILL-DEFINED	9	3	6	0	1	0	0	0	1	7

LUNG CARCINOMA

2006-2010 Analytic Primaries (By Date of Diagnosis)

Risk Factors

Cigarette smoking is by far the most important risk factor for lung cancer. Risk increases with quantity and duration of cigarette consumption. Cigar and pipe smoking also increase risk. Other risk factors include occupational or environmental exposure to secondhand smoke, radon, asbestos (particularly among smokers), certain metals (chromium, cadmium, and arsenic), some organic chemical, radiation, air pollution, and a history of tuberculosis. Genetic susceptibility plays a contributing role in the development of lung cancer, especially in those who develop the disease at a younger age.

Early Detection

Screening for early lung cancer detection has not yet been proved to reduce mortality. Detection by chest x-ray, analysis of cells in sputum, and fiber-optic examination of the bronchial passages has shown limited effectiveness in reducing lung cancer deaths. Newer tests, such as low-dose spiral CT scans and molecular markers in sputum, have produced promising results in detecting lung cancers at earlier, more operable stages in high-risk patients, but have not yet been shown to reduce lung cancer deaths. In addition, there are considerable risks associated with lung biopsy and surgery that must be considered when evaluating the risks and benefits of screening. The National Lung Screening Trial is a clinical trial to assess whether screening individuals at high risk for lung cancer with spiral CT or standard chest x-ray can prevent lung cancer deaths. Launched in 2002, the study represents a collaboration of the National Cancer Institute and the American College of Radiology Imaging Network. The American Cancer Society contributed to the recruitment of subjects for the trial. Results from the study are expected by 2010-2011.

Signs and Symptoms

Symptoms may include persistent cough, sputum streaked blood, chest pain, voice change, and recurrent pneumonia or bronchitis.

Deaths

Lung cancer accounts for more deaths than any other cancer in both men and women. An estimated 157,300 deaths accounting for about 28% of all cancer deaths are expected to occur in 2010. Since 1987, more women have died each year from lung cancer than from breast cancer. Death rates among men decreased by 1.3% per year from 1990 to 1994 and by 2.0% per year from 1994 to 2006. Female lung cancer death rates have been stable since 2003 after continuously increasing for several decades. These trends in lung cancer mortality reflect historical differences in cigarette smoking between men and women and the decrease in smoking rates over the past 40 years.

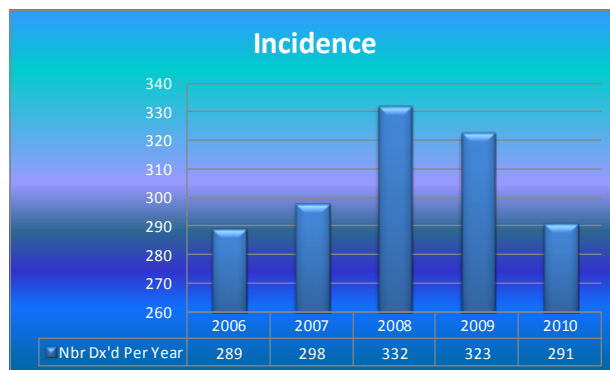
Incidence Comparison – 2010 (LRMC vs Florida vs National)

An estimated 222,520 new cases of lung cancer will occur in the US during 2010. The incidence rate of lung cancer is declining significantly in men, from a high of 102.1 cases per 100,000 in 1984 to 71.3 cases in 2006. In women, the rate is approaching a plateau after a long period of increase. Estimated new cases by gender: 116,750 (15%) male, 105,770 (14%) female.

Analytic 2010	LRMC	FLORIDA	U.S.
All Sites	2,019	107,000	1,529,560
Lung	291 14%	18,390 17%	222,520 15%

Incidence

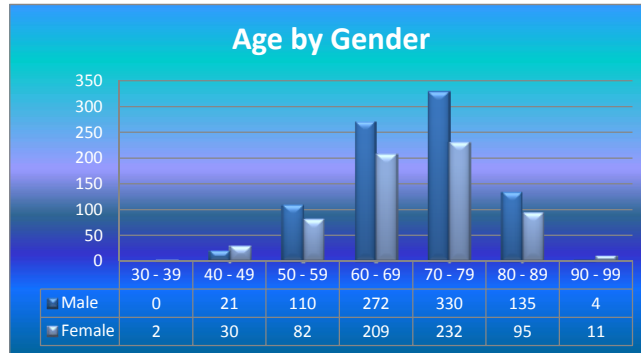
A total of 1,533 analytic lung primary cancer cases were diagnosed between 2006 and 2010.



Age at Diagnosis by Gender, Race, Ethnicity

Evaluation of the following reveals:

- Age at Diagnosis by Gender: The majority of patients were diagnosed between the ages of 70-79 for both male and female.
- Race: 268 (92%) were Caucasian and 23 (8%) African American.
- Ethnicity: 1,499 (98%) were non-Spanish, 21 (1%) were Spanish NOS or Hispanic NOS, and 13 (1%) were a combination of Puerto Rican, Mexican, Spanish Surname Only, and Unknown Whether Spanish or Not.



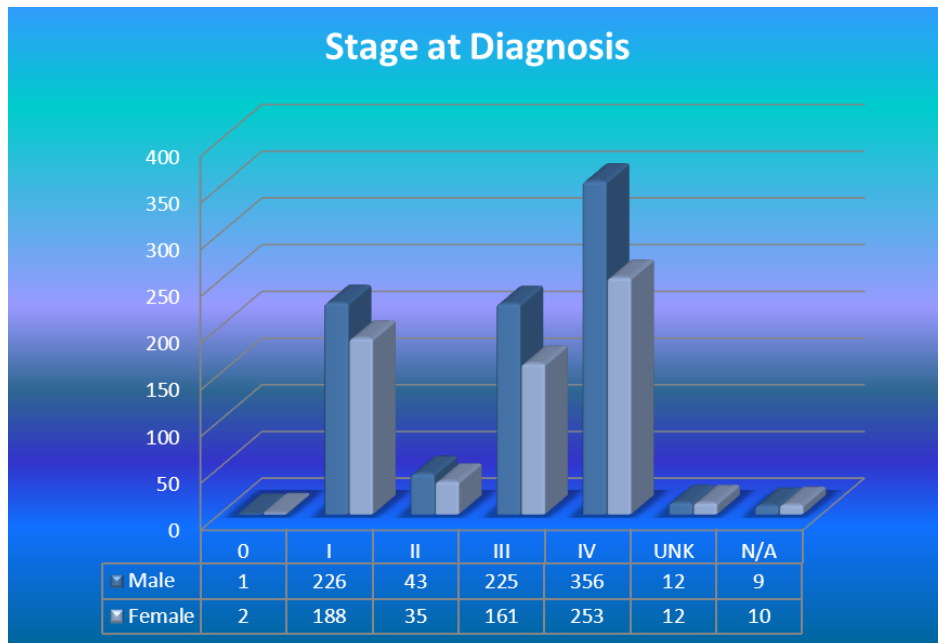
County of Residence at Diagnosis

The majority of patients 1,435 (93.61%) resided in Polk county at the time of diagnosis. A detailed breakdown is displayed below.

COUNTY	VOLUME	PERCENT
POLK	1435	93.61%
HILLSBOROUGH	39	2.54%
HIGHLANDS	17	1.11%
OUT OF STATE	12	0.78%
PASCO	9	0.59%
LAKE	3	0.20%
SUMTER	3	0.20%
BREVARD	2	0.13%
GLADES	2	0.13%
ORANGE	2	0.13%
OUT OF COUNTRY	1	0.07%
HENDRY	1	0.07%
HERNANDO	1	0.07%
OKEECHOBEE	1	0.07%
MONROE	1	0.07%
ST LUCIE	1	0.07%
PALM BEACH	1	0.07%
OSCEOLA	1	0.07%
MANATEE	1	0.07%

Stage at Diagnosis

The majority of the patients were diagnosed at Stage IV. Percentage breakdown reveals that 0.02% at were diagnosed at Stage 0. 27.0% at Stage I, 5.1% at Stage II, 25.2% at Stage III, 39.7% at Stage IV, 1.6% at unknown stage, and 1.2% with no applicable staging.



Treatment

Treatment options are determined by the type (small cell or non-small cell) and stage of cancer and include surgery, radiation therapy, chemotherapy, and targeted therapies such as bevacizumab (Avastin) and erlotinib (Tarceva). For localized cancers, surgery is usually the treatment of choice. Recent pooled analyses confirm that survival for all patients with early stage, non-small cell lung cancer is improved by giving chemotherapy after surgery. Because the disease has usually spread by the time it is discovered, radiation therapy and chemotherapy are often used, sometimes in combination with surgery. A recent clinical trial showed a survival advantage for advanced-stage non-small cell lung cancer patients when cetuximab (Erbitux, a monoclonal antibody) was combined with the traditional chemotherapeutic regimen. Chemotherapy alone or combined with radiation is the usual treatment of choice for small cell lung cancer; on this regimen, large percentage of patients experience remission, though the cancer often returns. A breakdown of the treatment documented in the LRMC cancer registry database is displayed below:

TREATMENT	INCIDENCE RATE
None/Observation	429 (28.0%)
Single Modality Therapy	637 (41.6%)
- Surgery Only	223
- Other	6
- Radiation Only	143
- Chemotherapy Only	262
- Hormone Only	3
Multi-Modality Therapy	467 (30.4%)
- Surgery/Chemo/XRT	28
- Surgery/Chemo	71
- Surgery/XRT	15
- Chemo/XRT	344
- Chemo/XRT/Hormone	1

Most Definitive Surgery

Of the cases that had surgery performed, a breakdown of the most definitive surgery performed is displayed below:

CANCER DIRECTED SURGERY CODE	VOLUME	PERCENT
Local or partial pancreatectomy and duodenectomy with partial gastrectomy (Whipple)	26	10.4%
Partial pancreatectomy	15	6.0%
Total pancreatectomy and subtotal gastrectomy or duodenectomy	4	1.6%
Surgery, NOS	4	1.6%
Local or partial pancreatectomy and duodenectomy	3	1.2%
Extended pancreatoduodenectomy	2	0.8%
Total pancreatectomy	2	0.8%
Local or partial pancreatectomy and duodenectomy without distal/partial gastrectomy	1	0.4%
Pancreatectomy, NOS	1	0.4%

Histology

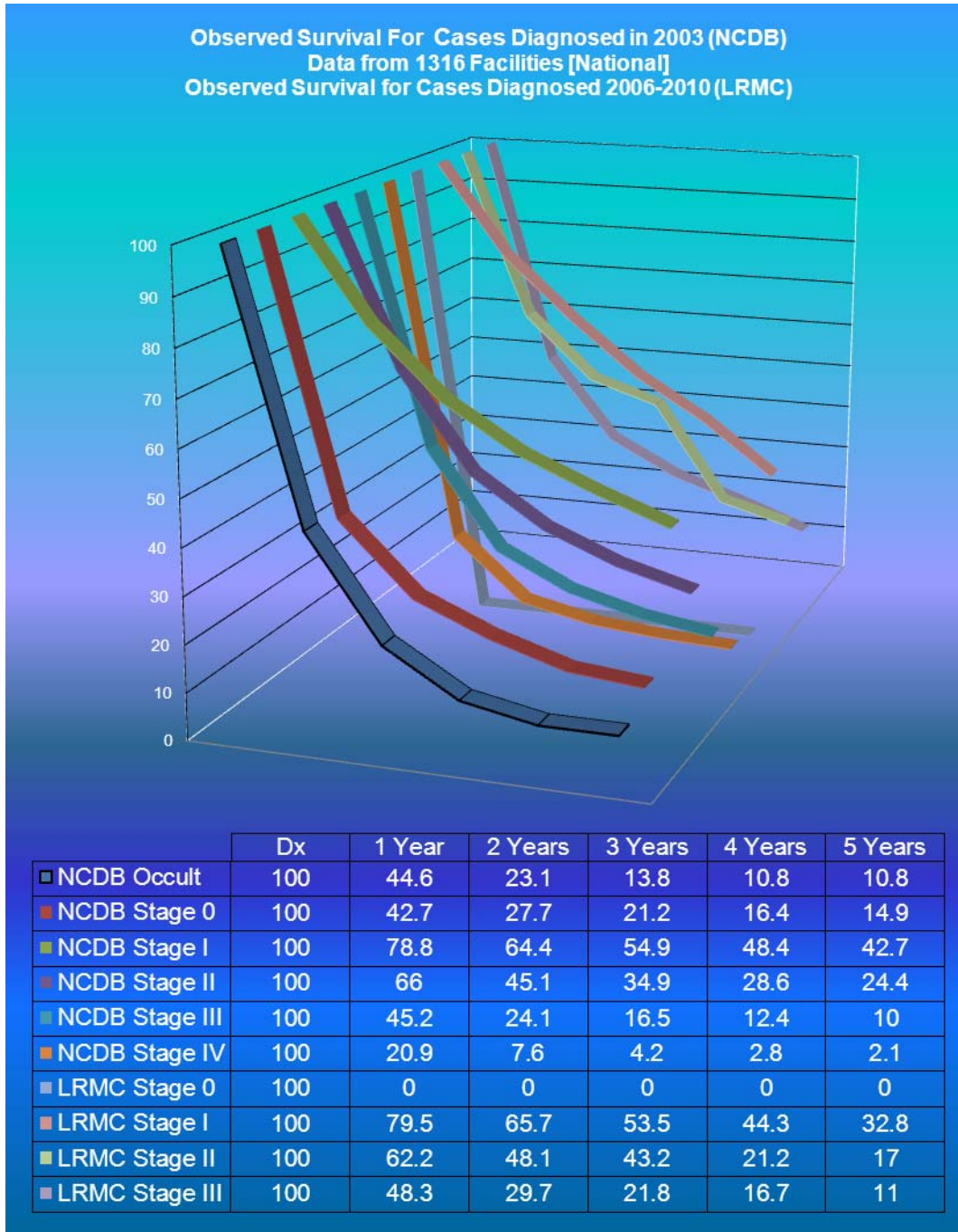
A breakdown of the tumor histology is displayed below:

HISTOLOGY	INCIDENCE	PERCENT
Adenocarcinoma NOS	561	36.59%
Squamous cell carcinoma NOS	319	20.81%
Small cell carcinoma NOS	203	13.24%
Non-small cell carcinoma (C34._)	130	8.48%
Neoplasm malignant	55	3.59%
Squamous cell carcinoma large cell nonkeratinizing	52	3.39%
Carcinoma NOS	43	2.80%
Bronchiolo-alveolar adenocarcinoma (C34._)	22	1.44%
Large cell carcinoma NOS	15	0.98%
Large cell neuroendocrine carcinoma	15	0.98%
Carcinoid tumor NOS (except of Appendix M-8240/1)	13	0.85%
Neuroendocrine carcinoma	12	0.78%
Mucinous adenocarcinoma	10	0.65%
Adenosquamous carcinoma	8	0.52%
Squamous cell carcinoma keratinizing NOS	8	0.52%
Mucin-producing adenocarcinoma	8	0.52%
Broncholo-alveolar carcinoma mucinous (C34._)	8	0.52%
Small cell-large cell carcinoma (C34._)	7	0.46%
Bronchiolo-alveolar carcinoma non-mucinous (C34._)	4	0.26%
Pseudosarcomatous carcinoma	3	0.20%
Atypical carcinoid tumor	3	0.20%
Carcinoma with neuroendocrine differentiation	3	0.20%
Adenocarcinoma with mixed subtypes	3	0.20%
Squamous cell carcinoma in situ NOS	3	0.20%
Papillary adenocarcinoma NOS	3	0.20%
Carcinosarcoma NOS	2	0.13%
Hemangiosarcoma	2	0.13%
Giant cell carcinoma	2	0.13%
Spindle cell carcinoma	2	0.13%
Carcinoma undifferentiated NOS	2	0.13%
Clear cell adenocarcinoma NOS	2	0.13%
Papillary carcinoma NOS	1	0.07%
Malignant tumor fusiform cell type	1	0.07%
Synovial sarcoma NOS	1	0.07%
Basaloid squamous cell carcinoma	1	0.07%
Small cell carcinoma intermediate cell (C34._)	1	0.07%
**Mesothelioma biphasic malignant	1	0.07%
Oat cell carcinoma (C34._)	1	0.07%
Transitional cell carcinoma NOS	1	0.07%
Epithelioma malignant	1	0.07%
Squamous cell carcinoma spindle cell	1	0.07%

Survival by Stage

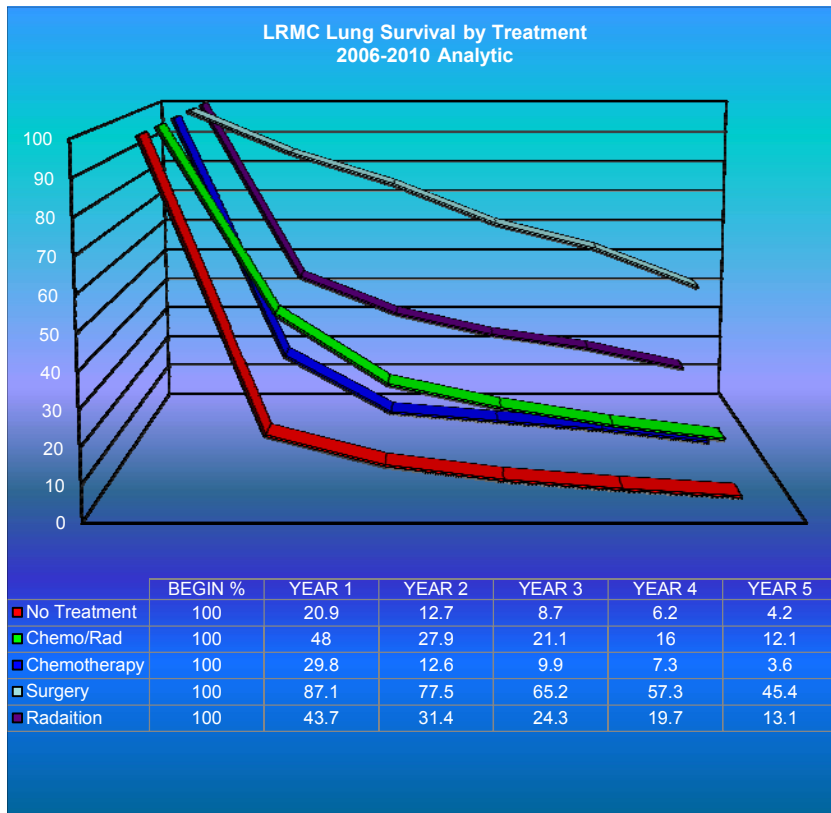
The 1-year relative survival for lung cancer increased from 35% in 1975-1979 to 42% in 2002-2005, largely due to improvements in surgical techniques and combined therapies. However, the 5-year survival rate for all stages combined is only 16%. The 5-year survival rate is 53% for cases detected when the disease is still localized, but only 15% of lung cancers are diagnosed at this early stage. The 5-year survival for small cell lung cancer (6%) is lower than that for non-small cell (17%).

The graph displayed below compare the NCDB 5-year survival rate using cases diagnosed from 2003 for NCDB and the national comparisons (all states from NCDB database for the same time period) with 2006-2010 LRMC.



Survival by Treatment

The graph displayed below depicts the survival rate using cases diagnosed from 2006-2010 LRMC with breakdown by treatment:



Glossary

AJCC Staging

Tumor, node and metastasis staging (also known as TNM staging) of the American Joint Committee on Cancer.

Analytic

A patient who was initially diagnosed or received all or part of the first course of therapy at Lakeland Regional Cancer Center.

LRCC

Lakeland Regional Cancer Center.

LRMC

Lakeland Regional Medical Center.

National Cancer Database (NCDB)

A program that is a joint project of the Commission on Cancer of the American College of Surgeons and the American Cancer Society designed to facilitate hospital, state and national assessment of patient care.

Non-Analytic

A patient who was diagnosed and received all of the first-course therapy at another institution, a patient who was diagnosed and/or received all or part of the first-course therapy at Lakeland Regional Cancer Center before the registry's reference date (2002), or a patient who was diagnosed at autopsy.

Primary Site

The anatomical location considered the point of origin for the malignancy.

























Treatment Modality

The treatment regimen planned for the patient. Single modality consists of one type of treatment; multi-modality consists of a combination of two or more types of treatment.

References

Cancer Facts & Figures 2010 - Published by the American Cancer Society
NCDB, Commission on Cancer, ACoS, Benchmark Reports
Lakeland Regional Medical Center - Oncology Data Services Database

Cancer Awareness Ribbon Colors

	All Cancers Lavender		Lung Cancers White
	Bladder Cancer Yellow		Lymphoma Lime
	Brain Cancer Grey		Melanoma Black
	Breast Cancer Pink		Multiple Myeloma Burgundy
	Cervical Cancer Teal/White		Ovarian Cancer Teal
	Childhood Cancer Gold		Pancreatic Cancer Purple
	Colon Cancer Dark Blue		Prostate Cancer Light Blue
	Esophageal Cancer Periwinkle		Sarcoma/Bone Cancer Yellow
	Head & Neck Cancer Burgundy/Ivory		Stomach Cancer Periwinkle
	Kidney Cancer Orange		Testicular Cancer Orchid
	Leiomyosarcoma Purple		Thyroid Cancer Teal/Pink/Blue
	Leukemia Orange		Uterine Cancer Peach
	Liver Cancer Emerald		Honors Caregivers Plum

Our program is a community hospital comprehensive cancer program approved by the Commission on Cancer of the American College of Surgeons since 1989.

Lakeland Regional
Medical Center

1324 Lakeland Hills Blvd.

Lakeland, FL 33805

(863) 687-1100

Lakeland Regional
Cancer Center

3525 Lakeland Hills Blvd.

Lakeland, FL 33805

(863) 904-6565

