



Osceola Regional Medical Center
2011 Annual Cancer Report
Reflecting 2010 Data

Mission Statement

Osceola Regional Medical Center is dedicated to shaping the future of healthcare in our culturally diverse community. We are committed to continually enhancing the standard of healthcare and wellness through safe, accessible, consistent, and compassionate care.

A Message from our Chief Executive Officer

I am pleased to present Osceola Regional Medical Center's Annual Cancer Report for 2011. Herein you will find that it was a busy and exciting year for our Cancer Program, with many notable accomplishments. This year, Osceola Regional Medical Center was awarded full Accreditation by the American College of Surgeons Commission on Cancer. This prestigious recognition is granted only to those facilities that have voluntarily committed to provide the best in cancer diagnosis and treatment, and stands as a testament to our commitment to fighting cancer in our community.

In support of our cancer program, the Osceola Regional Cancer Committee and Tumor Board have been very active, ensuring that we serve our patients with high quality, compassionate care while focusing on a multidisciplinary treatment approach. In 2011, nearly 20% of all newly diagnosed cases were reviewed by our Multidisciplinary Tumor Board which includes Medical and Radiation Oncologists, Radiologists, Pathologists, General Surgeons, GYN Oncologists, and Thoracic Surgeons.

2011 saw growth in many areas of our cancer program including mammography studies, patient referrals to the American Cancer Society, visits to our ACS Community Resource Room, and the addition of minimally invasive lung surgery with the DaVinci Surgical Robot. Our programmatic growth has been dramatic this year, with much more to come in 2012.

In this report, you will find information regarding all of our cancer care activities in 2011 as well as a discussion on lung cancer, a high volume cancer treated here at Osceola. I am very proud of our work this year and our ongoing commitment to providing compassionate, high quality cancer care for the residents of Osceola County and Central Florida.

Kathryn Gillette
CEO, Osceola Regional Medical Center



Chairman's Annual Report

On behalf of the Osceola Regional Medical Center Cancer Committee, I am proud to present our 2011 annual report. This report reflects 2010 incidence data and program activity. Our oncology program continues to provide high quality oncology care for the people of Osceola County and Central Florida.

In 2011, Osceola Regional achieved Accreditation by the American College of Surgeons Commission on Cancer (CoC) as a Community Hospital Cancer Program. This designation is a testament to the high quality of cancer care that is available to our community close to home.

To maintain accreditation, we must continue to meet the rigorous standards of the Commission on Cancer. Comprehensive care requires a multidisciplinary approach, including treatment, educational support programs, and lifetime follow-up by our Cancer Registry, as well as patient education about treatment options and access to clinical trials.

Educational activities in 2011 included a monthly cancer case conference, which was well attended by multiple disciplines. Patients were presented prospectively and the group discussed the clinical management plan. All cancer conferences provide CME credits for attending physicians.

Finally, many thanks to the members of our Cancer Committee and all of the staff at Osceola Regional Medical Center who have contributed so much to making our cancer program successful in 2011. We have much to look forward to in 2012 as our program continues to grow and develop.

Jorge G. Otoy, M.D., FACP
Chairman, Cancer Committee



Cancer Committee Membership 2011

Required Members	Specialty
Jorge Otoya, MD	Medical Oncology (Cancer Committee Co-Chair and
Tejal Patel, MD	Radiology (Cancer Committee Co-Chair)
John Accola, MD	Pathology (Cancer Conference Co-Coordinator)
Daniel Halili, MD	Radiation Oncology (Cancer Conference Co-Coordinator)
Alan Keller, MD	Surgery
David Nyberg, MD	Medical Oncology (Physician Liaison)
Sarah Jane Forsythe	Nursing Administration
Claudia Leon	Nursing
Sandra Moore	Case Management
Elizabeth Exilus	Cancer Registry
Trudy Jackson	Quality Management (Quality Improvement Coordinator)
Vanessa Guevara	Marketing (Community Outreach Coordinator)
Optional Members	Specialty
Alan Frashier	Pharmacy
Rita Talbo	Hospice
Sheila Frashier	Education
Lisa Livingston	Rehabilitative Services
Elizabeth Thornton	Radiology (Breast Cancer Navigator)
Allison Anderson	Health Information Systems
Kathy Gillette	Administration

Cancer Resources

Osceola Regional Medical Center	(407) 846-2266	www.osceolaregional.com
American Cancer Society (ACS)	(800) 227-2345	www.cancer.org
American College of Surgeons	(800) 621-4111	www.facs.org
Cancer Programs (ACoS)	(321) 202-5058	www.facs.org/cancer
National Cancer Institute (NCI)	(800) 4CANCER	www.cancer.gov
Florida Department of Health (FDH)	(850) 245-4003	www.doh.state.fl.us

2011 Cancer Committee Annual Goals

Clinical:

- Increase number of OCN certified nurses from 0 to 1
- To offer quarterly educational workshops on medical oncology for the nursing staff
- Implement breast surgeon panel

Programmatic

- To complete successful CoC accreditation by 2011
- Offer at least three cancer related educational events one of which is related to AJCC staging, prognostic indicators and treatment guidelines
- To increase the volume of cases presented at monthly cancer conferences from 3 to more than 5 per month.
- Develop a process for referring patients to clinical trials
- Develop a process for genetic counseling referral process
- Promote the Breast Cancer Patient Navigation program

Community Outreach

- To offer a daylong oncology symposium to nursing staff
- Complete Colon Cancer Occult Blood Testing
- Participate in at least five health fairs throughout the year.
- To increase the number of ACS referrals
- Develop a cookbook for breast cancer survivors

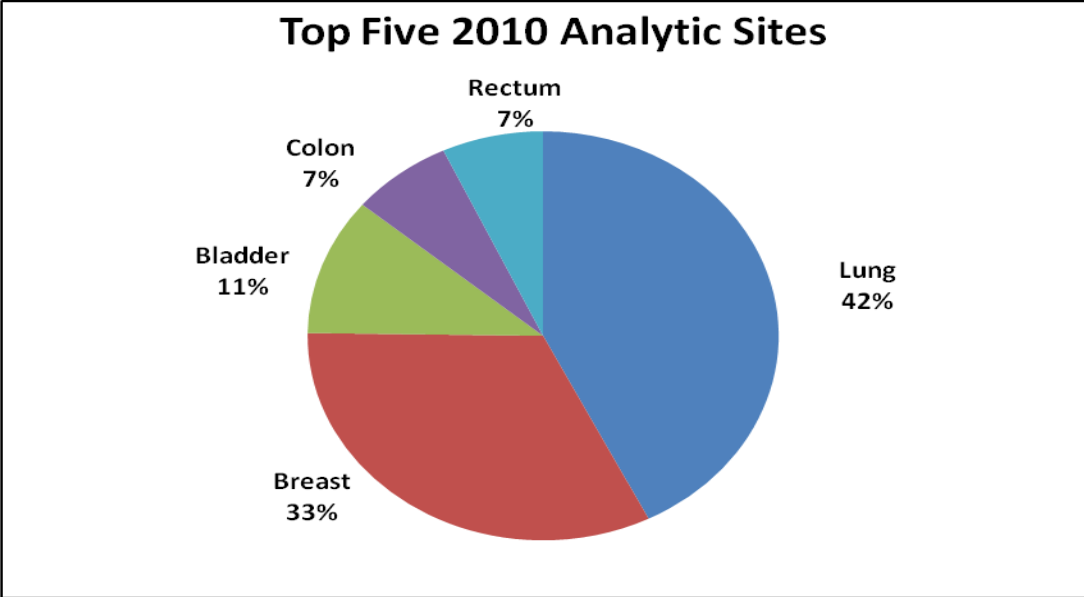
Quality Improvement

- Implement at least three quality improvement measures that affect patient care:
- Complete one site specific study using NCCN guidelines per quarter
- Improve pain assessments intervention
- Decrease the amount of time from chemo order to initiation

Cancer Statistics 2010

The Cancer Registry is a required component of attaining accreditation by the American College of Surgeons Commission on Cancer. This registry collects information on each cancer patient including demographics, cancer identification, and treatment. The information submitted is used for comparative analysis with other hospitals and for the annual report. Analytic cases are defined as cancer cases diagnosed and/or administered any of the first course of treatment at our facility. The Registry has accrued and followed all cases since 2008, and achieves follow up rate of 95.78%. A total of 374 cases were recorded for 2010. The top five tumor sites diagnosed were bronchus and lung (98 cases), breast (75 cases), urinary bladder (25 cases), colon (16 cases) and rectum (16 cases).

All medical staff and other professionals involved in the care of patients are invited to attend the monthly cancer conferences. Surgeons, pathologists, radiologists, medical oncologists, radiation oncologists, and other specialists review clinical and diagnostic information, then discuss current research, clinical trial eligibility, and nationally accepted therapeutic treatment guidelines to develop the best treatment plans. In 2011, 73 cases were presented during the monthly cancer conferences, representing 19.52% of the analytic cases. The top five sites discussed at conference in 2011 were lung, breast, stomach, lymph nodes and colon.



Cancer Data Statistics: 2010 Summary	
# of all cancer cases this year	574
# of all analytic cases:	374
# of males with cancer	207
# of females with cancer	169

2010 Primary Tumor Site Table

PRIMARY SITE	# of Cases	GENDER		STAGE AT DIAGNOSIS						
		Male	Female	0	I	II	III	IV	UNK	N/A
ALL SITES	376	207	169	19	104	57	43	66	50	37
ORAL CAVITY	4	4	0	0	1	0	1	0	2	0
LIP	1	1	0	0	1	0	0	0	0	0
OROPHARYNX	1	1	0	0	0	0	0	0	1	0
OTHER	2	2	0	0	0	0	1	0	1	0
DIGESTIVE SYSTEM	73	48	25	1	16	13	9	20	12	2
ESOPHAGUS	2	2	0	0	0	2	0	0	0	0
STOMACH	9	6	3	0	3	1	1	3	1	0
COLON	16	10	6	0	5	5	2	4	0	0
RECTUM	16	11	5	1	3	3	5	4	0	0
ANUS/ANAL CANAL	2	2	0	0	0	2	0	0	0	0
LIVER	14	10	4	0	5	0	0	3	6	0
PANCREAS	8	4	4	0	0	0	0	6	2	0
OTHER	6	3	3	0	0	0	1	0	3	2
RESPIRATORY SYSTEM	99	71	28	0	26	5	14	29	24	1
LUNG/BRONCHUS	98	70	28	0	25	5	14	29	24	1
OTHER	1	1	0	0	1	0	0	0	0	0
BLOOD & BONE MARROW	18	10	8	0	0	0	0	0	0	18
LEUKEMIA	9	4	5	0	0	0	0	0	0	9
MULTIPLE MYELOMA	6	3	3	0	0	0	0	0	0	6
OTHER	3	3	0	0	0	0	0	0	0	3
CONNECT/SOFT TISSUE	1	0	1	0	0	0	0	0	1	0
SKIN	7	6	1	1	2	0	1	3	0	0
MELANOMA	7	6	1	1	2	0	1	3	0	0
BREAST	75	2	73	5	37	22	7	3	1	0
FEMALE GENITAL	12	0	12	0	3	0	3	2	4	0
CERVIX UTERI	1	0	1	0	1	0	0	0	0	0
CORPUS UTERI	6	0	6	0	1	0	1	1	3	0
OVARY	5	0	5	0	1	0	2	1	1	0
MALE GENITAL	16	16	0	1	1	9	2	2	1	0
PROSTATE	14	14	0	0	1	9	2	2	0	0
TESTIS	1	1	0	0	0	0	0	0	1	0
OTHER	1	1	0	1	0	0	0	0	0	0
URINARY SYSTEM	36	26	10	11	13	2	5	5	0	0
BLADDER	25	17	8	11	8	1	4	1	0	0
KIDNEY/RENAL	11	9	2	0	5	1	1	4	0	0
BRAIN & CNS	4	2	2	0	0	0	0	0	0	4
BRAIN (BENIGN)	1	1	0	0	0	0	0	0	0	1
OTHER	3	1	2	0	0	0	0	0	0	3
ENDOCRINE	5	3	2	0	1	1	0	1	2	0
THYROID	5	3	2	0	1	1	0	1	2	0
LYMPHATIC SYSTEM	14	11	3	0	4	5	1	1	3	0
HODGKIN'S DISEASE	2	2	0	0	2	0	0	0	0	0
NON-HODGKIN'S	12	9	3	0	2	5	1	1	3	0
UNKNOWN PRIMARY	10	7	3	0	0	0	0	0	0	10
OTHER/ILL-DEFINED	2	1	1	0	0	0	0	0	0	2

Lung Cancer Overview and Treatment Options

By Jorge G. Otoy, M.D., FACP

For the past decade we have witnessed significant progress in prevention, diagnosis, and treatment of lung cancer. Smoking cessation is the single most important factor in lung cancer prevention as community awareness that cigarette smoking is harmful has been delivered via diverse means of communication including community and hospital programs, television, newspapers, magazines and health care providers. At present, less and less adults are smoking. However, there is not an established recommendation for screening to detect early lung cancer. The National Lung Screening Trial reported that using chest computed tomography scans (CT scans) could avoid one death for 295 screened patients.

Incidence of Lung Cancer

Non-small cell lung cancer (NSCLC) is the most frequent malignancy, representing 87% of all lung cancers. Small Cell Lung Cancer (SCLC) represents only 13%. Small Cell Lung Cancer is the most closely linked with cigarette smoking, with 97% of patients having a history of heavy smoking; in Squamous Cell Carcinoma and Large Cell Carcinoma 80% of patients were smokers, and finally in Adenocarcinoma 70% were smokers.

Management and Treatment of Non-Small Cell Lung Cancer

Patients with initial diagnosis of NSCLC need several radiographic studies to determine the clinical stage of malignancy, which will determine tumor resectability. In general, stage I, II and IIIA are respectable tumors if there are not significant co-morbid conditions. Few selected patients with stage IIIB can have successful tumor resection.

Following surgery, for stages II and III there is a recommendation for additional treatment (adjuvant treatment) in the form of a combination of chemotherapy and radiation therapy. The standard of care for resected stage II and III NSCLC (ASCO Guidelines) is 4 cycles of Cisplatin / Vinorelbine or Docetaxel or Gemcitabine based chemotherapy. Carboplatin can be used if patient is not a candidate for Cisplatin.

For treatment recommendations for chemotherapy naive recurrent for metastatic tumor, it is not enough to know the histology of NSCLC. At present the identification of the histology sub-type (Adenocarcinoma, Large Cell Carcinoma or Squamous Cell Carcinoma) and special molecular studies such as EGFR mutation analysis and ELK mutation analysis are important. EGFR mutation positive tumors are sensitive to Erlotinib (except EGFR positive with Exon 20 insertion) and ALK positive tumors are sensitive to Crizotinib and these 2 drugs are currently recommended as a first line therapy for recurrent or metastatic Adenocarcinoma or Large Cell carcinoma. For Squamous Cell Carcinomas EGFR mutation analysis is not routinely recommended.

For EGFR mutation negative and ELK mutation negative tumors and when using histology alone to guide first line systemic therapy, the treatment recommendation for Adenocarcinoma/Large Cell Carcinoma is the use of a combination of Carboplatin/Paclitaxel/Bevacizumab or Cisplatin(or Carboplatin)/Gemcitabine and for Squamous Cell Carcinomas the combination of Cisplatin(or Carboplatin)/Gemcitabine or Cisplatin(or Carboplatin)/Taxane. In a randomized study the combination of Cisplatin/ Pemetrexed was superior in patients with Adenocarcinoma and Large

Cell Carcinomas when compared with Cisplatin/Gemcitabine. Following initial first line combination chemotherapy there is a recommendation for Maintenance Therapy, where there is survival benefit. Agents such as, Cetuximab, Erlotinib, Pemetrexed, Gemcitabine and Docetaxel are used until progression of disease or toxicity.

Radiation therapy in resected NSCLC is indicated to improve local control and likely survival for N2 patients. It is indicated for positive margins of resection, extra capsular spread, and to T3, T4 tumors with close margins. There is no role for completely resected tumors, N0 or most N1 patients.

For patients with recurrent lung cancer previously treated with chemotherapy, Docetaxel and Pemetrexed remains the standard of care. Pemetrexed is recommended for Non-Squamous Cell Cancers. New drugs as single agents or in combination are used in investigational trials. Erlotinib is the only agent FDA approved for 3rd-Line therapy and there is no standard of care beyond 3rd-Line therapy. We commonly use Vinorelbine and Gemcitabine as a 3rd-Line treatment. Treatment for relapsed NSCLC that present with Mutation Analysis positive for EGFR, KRAS, BRAF V600E, EML4-ALK mutation and Her2 expression are been investigated in clinical trials.

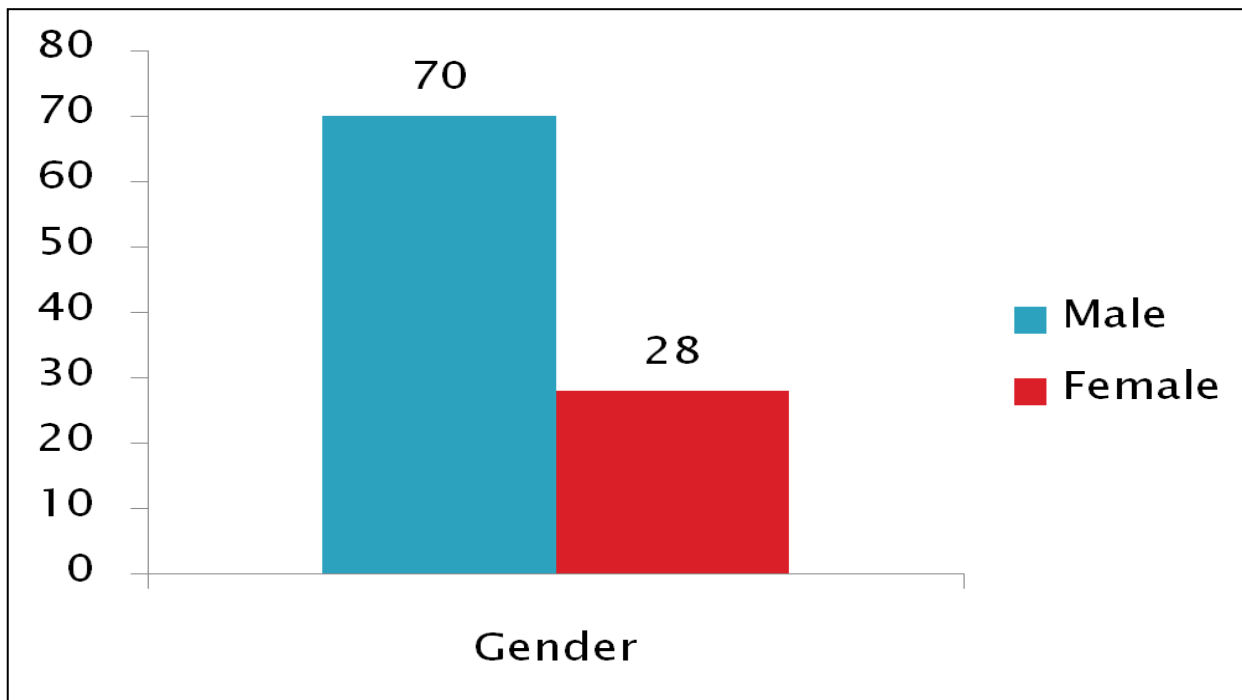
Management and Treatment of Small Cell Lung Cancer

This neuroendocrine malignancy represents 13% of the lung cancers, and is the most closely related to cigarette smoking, with 97% of patients having a history of heavy smoking. This tumor over expresses Bcl-2 and recently oral Bcl2 inhibitors, Navitoclax and gossypol are in directed phase I and II trials for patients with SCLC. Hedgehog signaling is also present in most SCLC and systemic hedgehog signaling antagonist (GDC-0449 and IPI-926) are being studied in phase I trials and are active against basal cell carcinomas. Cough, weight loss, dyspnea and weakness are the most common symptoms and occasionally are accompanied by the presence of paraneoplastic syndromes, hyponatremia, hypercalcemia, ectopic ACTH syndrome and acromegaly. Diagnosis is obtained by fine needle aspiration biopsy of lung mass, fiber optic bronchoscopy, or mediastinoscopy.

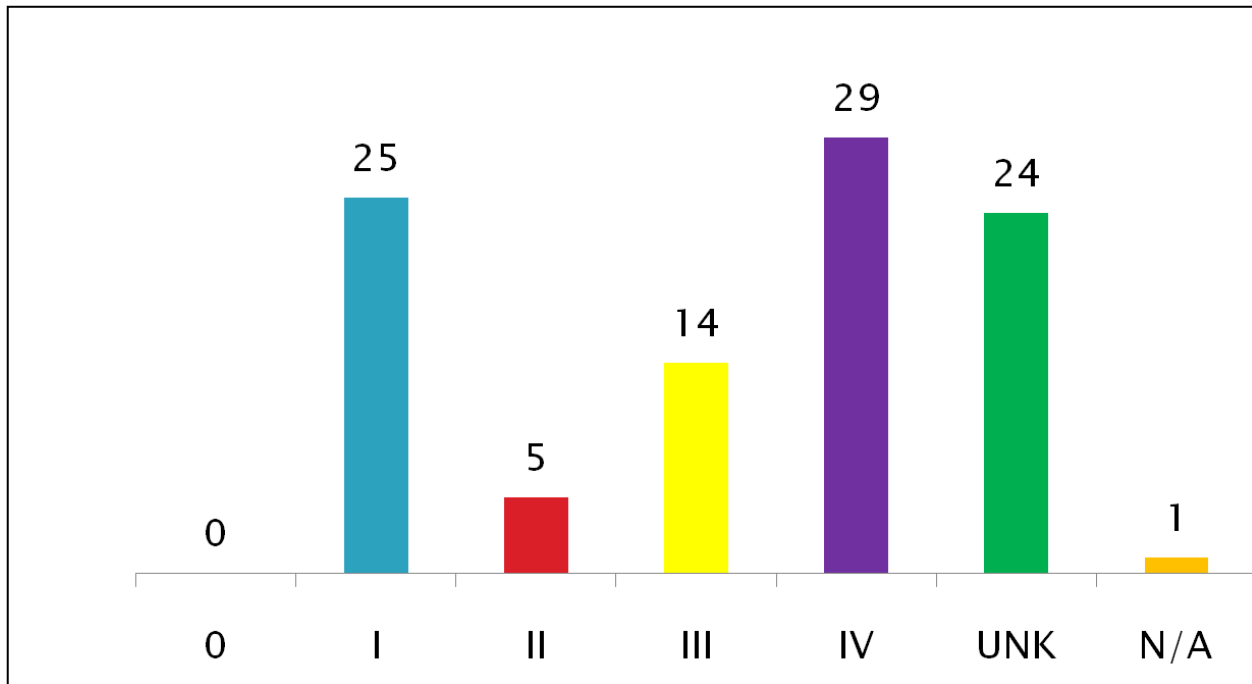
The staging classification is a two stage Veterans Administration Lung Study Group System, updated in 1989 by the International Association Study of Lung Cancer. Limited Stage is confined to one hemithorax with regional lymph nodes including either ipsilateral or bilateral hilar, mediastinal and supraclavicular and without ipsilateral pleural effusion. Extensive Stage is when the tumor extends beyond the extension of limited disease. This tumor produces early metastases particularly to bones, liver and bone marrow.

Treatment for limited disease consists of concurrent chemoradiation therapy, and Cisplatin/Etoposide as the first line of treatment. Cranial irradiation is recommended after completion of chemoradiation treatment. Treatment of Extensive Stage consists of the use of a combination chemotherapy Cisplatin/Etoposide or Cisplatin/Irinotecan. A new drug currently under investigation is Amrubicin.

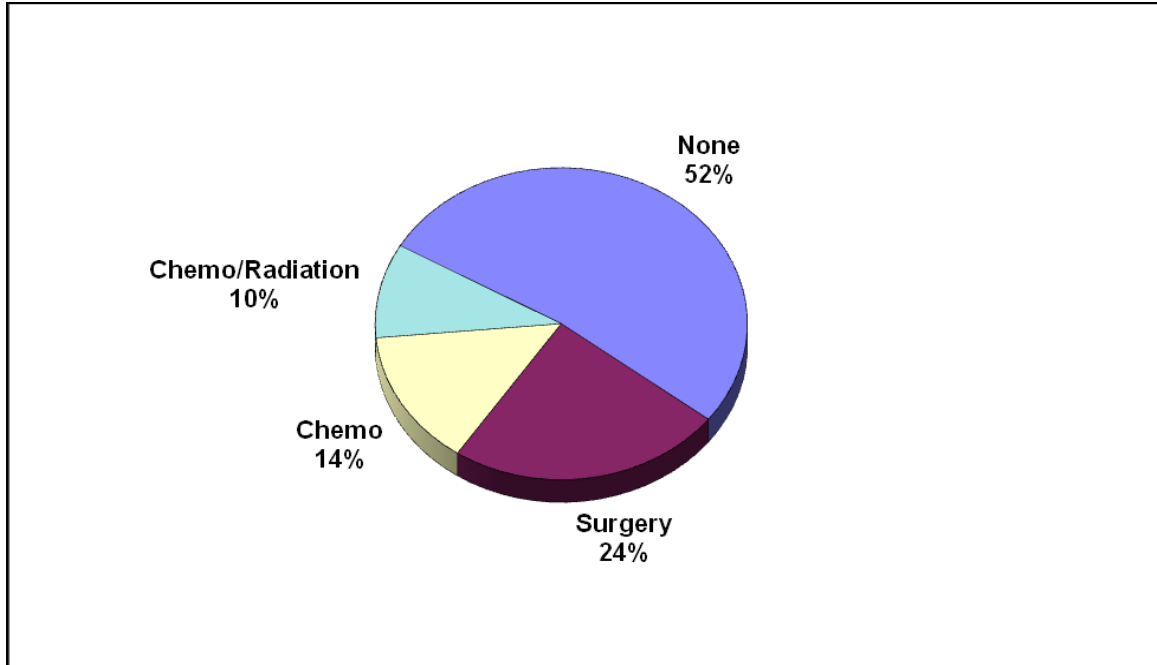
**Osceola Regional Medical Center
2010 Analytic Lung Cases by Gender**



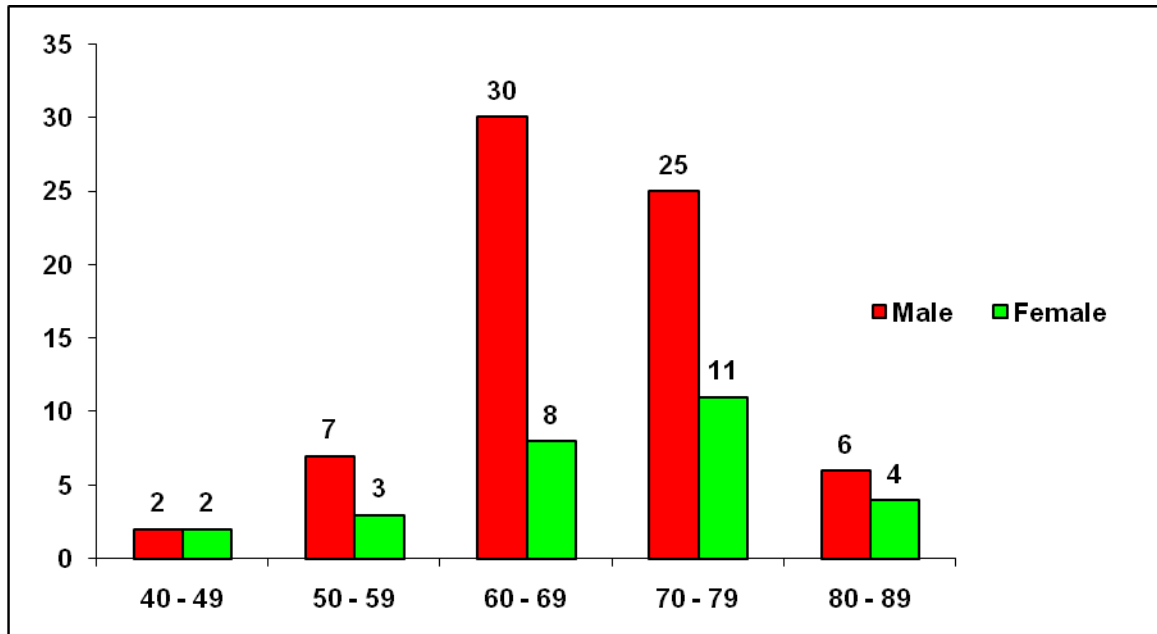
**Osceola Regional Medical Center
2010 Analytic Lung Cases by Stage at Diagnosis**



**Osceola Regional Medical Center
2010 Analytic Lung Cases by First Course Treatment**



**Osceola Regional Medical Center
2010 Analytic Lung Cases by Age by Gender**



Glossary of Terms

Analytic - A cancer that is reportable to the FCDS and NCDB. Cases diagnosed and/or treated initially at Osceola Regional Medical Center.

American Joint Commission on Cancer (AJCC) - Their goal is to formulate and publish systems classification of cancer, including staging and end results reporting, which will be acceptable to and used by the medical profession for selecting the most effective treatment, determining prognosis, and continued evaluation of cancer control measures.

American College of Surgeons (ACoS) - Dedicated to improving the care of the surgical patient and safeguarding standards of care in an optimal and ethical practice environment.

Commission on Cancer (CoC) - Sets standards for quality multi-disciplinary cancer care delivery primarily in hospital settings; surveys hospitals to assess compliance with those standards; collects standardized and quality data from approved hospitals to measure treatment patterns and outcomes; and uses the data to evaluate hospital provider performance.

Florida Cancer Data System (FCDS) - Florida's statewide population-based cancer registry. In 1978, the Florida Department of Health contracted with Sylvester Comprehensive Cancer Center at the University of Miami School of Medicine to design and implement the registry. FCDS has been collecting incidence data since 1981.

National Cancer Data Base (NCDB) - Nationwide Oncology outcomes data base for over 1,500 hospitals in 50 states. The NCDB was founded as a joint project of the ACoS, Commission on Cancer and the American Cancer Society.

Non - Analytic - Cancer cases primarily diagnosed and treated elsewhere, and/or receiving subsequent care at Osceola Regional Medical Center.

