2014 ANNUAL REPORT

WATSON CLINIC LLP

Center for Cancer Care & Research

WORLD-CLASS CANCER CARE CLOSE TO HOME

Watson Clinic's Center for Cancer Care & Research is pleased to present our 2014 annual report containing data from 2013.

First established in 2003, our center has worked tirelessly to set the standard for exceptional cancer care in our community and beyond.

That mission was first achieved by assembling the most highly trained, compassionate and progressive oncology experts in the industry. These specialists apply their expertise across various disciplines, such as radiology, and surgical and medical oncology. They meet regularly to discuss individual patient cases, and formulate personalized treatment plans for each.

Their efforts are further complemented by Watson Clinic's expanded team of over 200 board-certified physicians, who practice in fields as diverse as urology and plastic surgery. Together, they represent a true multi-disciplinary partnership in their fight against the disease.

Next, we've made it our consistent goal to remain on the forefront of cancer-fighting technologies. This cutting-edge inventory of equipment – featuring one True Beam linear accelerator, one trilogy, an open bore MRI, 3D mammography, and powerful PET/CT scan technology – allows our specialists the capability of detecting and treating cancer with more precision and effectiveness than ever before.

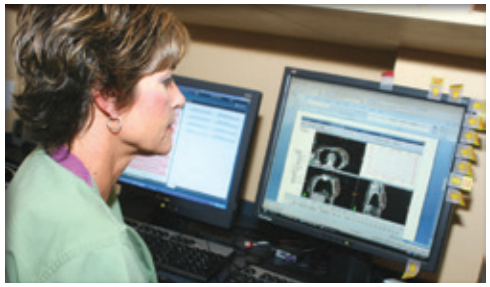
We understand that the next evolution in cancer care will not be accomplished through expertise and technology alone. That's why research has always played a prominent role in our approach to treatment. When appropriate and beneficial to the quality of their outcome, patients are encouraged to participate in innovative, evidence-based clinical trials. Watson Clinic's Center for Research is responsible for shepherding many of these patient trials, and our own oncology experts frequently pen groundbreaking studies of their own in major medical periodicals across the globe.

Finally, the road to cancer survivorship is paved by more than treatments to the cancer itself. Nurturing a patient's emotional wellbeing can often prove beneficial to the healing process, and serves as an important conduit to improved treatment outcomes. That's why we offer individualized support from our nurse navigator and social workers. They provide education and support throughout the patient's cancer experience.

All of us at Watson Clinic's Center for Cancer Care & Research share a tireless commitment to providing the best for our patients.

Outstanding Achievement Award Winner

American College of Surgeons
Commission on Cancer



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A MESSAGE FROM FRED SCHREIBER, MD

When was the last time you saw a cancer care facility refer to itself as average or inadequate?

When patients research who they can trust to care for them or their loved ones following a cancer diagnosis, they are met with many self-generated exaltations: Excellence in Cancer Care. Compassionate Expertise. The Team You Can Trust.

How can a prospective patient find the facility that best meets their needs?

A successful cancer care facility knows what truly matters to their patients, and their entire organization is structured around meeting and exceeding those needs.

A cancer patient wants to feel secure and protected in their care environment. They want to be assured that the power and attention of an entire team remains laser focused on making their triumphant recovery a reality. They need to be valued and considered active participants in their own care, and remain well informed every step along the way. And finally, they thrive when their care goes beyond mere technology and medications, and works in equal measure to heal the emotional wounds that a cancer diagnosis leaves exposed.

These are qualities that fill in the gaps — that make a cancer center complete — and that sound bites alone can never properly convey. At the Center for Cancer Care & Research, there is a sense of family that exists between our Watson Clinic medical team and each one of our patients, and it's a bond formed though our shared and single-minded purpose: to eradicate the threat of cancer from each of their lives for good.

Before all of this is possible, of course, the right players must be assembled, and they must have access to the finest tools in the industry, and perform within an environment that is conducive to producing the best results possible. We felt confident that these elements and more were in place at our cancer center, but we didn't want our patients to take our word for it. That's why we voluntarily underwent a rigorous evaluation from the American College of Surgeons Commission on Cancer (CoC), the industry's gold standard of accreditation organizations. An accreditation from the CoC would serve as the ultimate validation to remind our patients that they are receiving a level of care on par with the finest cancer facilities in the nation.

We're pleased to report that our cancer center is the only free-standing facility in Florida, and one of only 74 accredited centers across the nation, to have received the CoC Outstanding Achievement Award. This honor of distinction serves to show our patients that we truly do offer the highest quality cancer care available. We hope this also stands to motivate other facilities across the country to follow our lead.

But for now, we're honored and privileged to be of service, and to present to you an overview of our accomplishments.

A MESSAGE FROM SHALINI MULAPARTHI, MD

I am honored and privileged to be the Cancer Liaison Physician for the freestanding CoC accredited Watson Clinic Center for Cancer Care and Research facility in Lakeland, Florida.

This past year has been an exciting one at our cancer center as we've implemented a number of advancements and protocols in the areas of prevention and early detection, including 3D mammography, increased colon cancer screening and prostate cancer screening by primary care physicians. We're also in the process of implementing a fecal occult stool kit approved by the FDA for colon cancer screening, as well as new CT scans for lung cancer screening.

In the area of immuno-oncology and targeted therapies, we utilize Yervoy (Iplimumab) and Keytruda (pembrolizumab) and also Sipuleucel-T for advanced melanoma and prostate cancers. We're also investigating novel therapies for various cancers which are currently in the clinical trial phase.

Partnering with informed Informed DNA, a telephone genetic counseling organization, we offer genetic counseling and testing to our high-risk patients.

In regards to Radiation Oncology, we have recently incorporated an additional wide bore 4D unit, and a new CT simulator software program that tracks and compensates for organ movement during treatment to allow for more precise radiation. We also have Varian True Beam and one Trilogy module for SRS (stereotactic radiosurgery) and SBRT (stereotactic body radiation therapy). HD remote afterloader is currently used for brachytherapy and with AccuBoost for breast cancer treatments. We also use low-dose radiation therapy at Lakeland Surgical & Diagnositc Center – our outpatient surgery center – for prostate cancer and seed implantation. We've also been using radioisotope therapy with Xofigo for bony metastases with prostate cancer.

Empowered by our accreditation from the American College of Surgeons Commission on Cancer, we are a member of the Moffitt Oncology Network. These associations will allow our patients greater access to the research protocols from which they can most benefit. We are also actively enrolling in clinical trials headed by the Sarah Cannon Research Institute. We are a member of Southwest Oncology Group and participate in many trials with the National Adjuvant Breast and Bowel Project.

The resources and expertise of our entire team come into play when considering the treatment plan for each new patient. Weekly meetings bring together our Surgical Oncology, Radiation Oncology and Medical Oncology departments as we discuss the particulars of each new case.

This strong sense of team, alongside the valuable affiliations we maintain within the industry, and our unparalleled caliber of advanced technologies and treatments, speaks to the high quality of cancer care we provide to our patients, as well as our commitment to improving their wellbeing and overall rates of survival.

OUTREACH AND EVENTS

The vivacious community that we hold so dear continues to grow by leaps and bounds. The Center for Cancer Care & Research is growing right alongside of them. Our love for our patients, their families, and our community at large inspires everything we do, and our primary objective lies in keeping them safe, healthy and productive.

As a reflection of our commitment to the wellness of our community at large, we've invested a significant amount of dollars and time into supporting the organizations that specialize in healthy outreach, and the services that work to empower the public through enhanced wellness education efforts.

The first step to disease prevention is knowledge. Whether it's through sponsorship and participation in an annual event such as the Komen Race for the Cure, or through hosting a free public lecture from an expert oncologist, the Center for Cancer Care & Research remains front and center in our community to raise awareness and critical funds for the latest research and prevention efforts both on the local level and on the world stage.

Examples of our commitment to the community:

- Leader in fundraising for the local Chapters of the American Cancer Society
- Physician involvement at the board of director levels for local organizations serving the needs of cancer patients throughout our great county, including the Susan G. Komen Foundation, the Leukemia & Lymphoma Society and theAmerican Cancer Society.
- Providing the highest level of medical professionals as speakers for numerous community organizations as part of a continuing focus on education.
- Conducting necessary screenings in partnership with the Watson Clinic Foundation to elevate the awareness and importance of early detection and prevention.
- Participation in numerous special events throughout the community, including Light the Night, Cattle Baron's Ball, Making Strides, Komen 3 Day Walk, Relay For Life, Women's Health events in Lakeland, Think Pink in Auburndale and many others.
- Conducting monthly education programs on tobacco control to help our youth learn the importance of never picking up the habit, and to assist smokers who have a desire to quit. We host both introductory and cessation programs at the CCCR which are facilitated by state certified tobacco cessation instructors.
- Working in partnership with the Watson Clinic Foundation and the Watson Clinic Foundation Auxiliary to raise much needed funds to help continue the necessary research to find cures and implement patient trials.

ONCOLOGY SOCIAL SERVICES

Oncology Social Workers understand the emotional and psychosocial pressures faced by cancer patients. Our social workers are available to assist with a comprehensive range of referrals and support services.

We can help you:

- Adjust to your diagnosis of cancer and the many emotions you may be experiencing
- Understand your insurance coverage, social security benefits, and disability benefits
- Apply for programs that offer financial assistance
- Obtain medical equipment such as canes and walkers
- Access affordable medical care and prescription drug coverage

We provide referrals to:

- Support groups and educational programs
- Community counselors
- Home health care
- Transportation services
- Hospice care

We can teach you about:

- Talking to your children, family, friends or co-workers
- Coping with your emotions – sadness, anger, worry and fears
- Living with cancer, issues commonly experienced and resources to help you long term
- Life as a cancer survivor

"I really appreciated their ability and kindness. They walked with me every step of the way and held my hand through the whole process."

Louise Lee, Breast Cancer Survivor

ARTS IN MEDICINE

HEALING THROUGH CREATIVE EXPRESSION

Arts in Medicine (AIM) is an empowering outreach program aimed at elevating the spirits and enhancing the quality of life for cancer patients through the practice of the creative arts. Sponsored by the Watson Clinic Foundation, this inspirational program provides an invaluable service to patients, families and treatment staff alike.

The program is made up of a dedicated group of volunteers comprised of musicians, artists, writers, performers and educators – all joining together to represent various forms of creative expression, including painting, music and storytelling.

Research shows that creative outlets reduce anxiety in patients with cancer and blood diseases, and create an environment that is more conducive to healing, both physically and psychologically.

Further research indicates that artistic expression raises circulating endorphins and natural cancer-fighting cell levels, cooperative play-acting and theatre games raise pain thresholds, and creative writing lessens the physical symptoms of asthma and arthritis.

Patients can participate in these creative endeavors in a number of ways. Some patients may just want to relax and listen to music during their treatment while others may need to go deeper into themselves to gain a better understanding of their situation. Whether involving painting, poetry or musical celebration, the Arts in Medicine volunteers are open and receptive to the needs of patients and their family members.

Responses to the program have been overwhelmingly enthusiastic. Patients and their family members have enjoyed a more positive perspective on their journey through their involvement in the program, and a more calming and pleasurable sense of self in the process.

We look forward to continuing this important work through the Arts in Medicine program for many years to come.

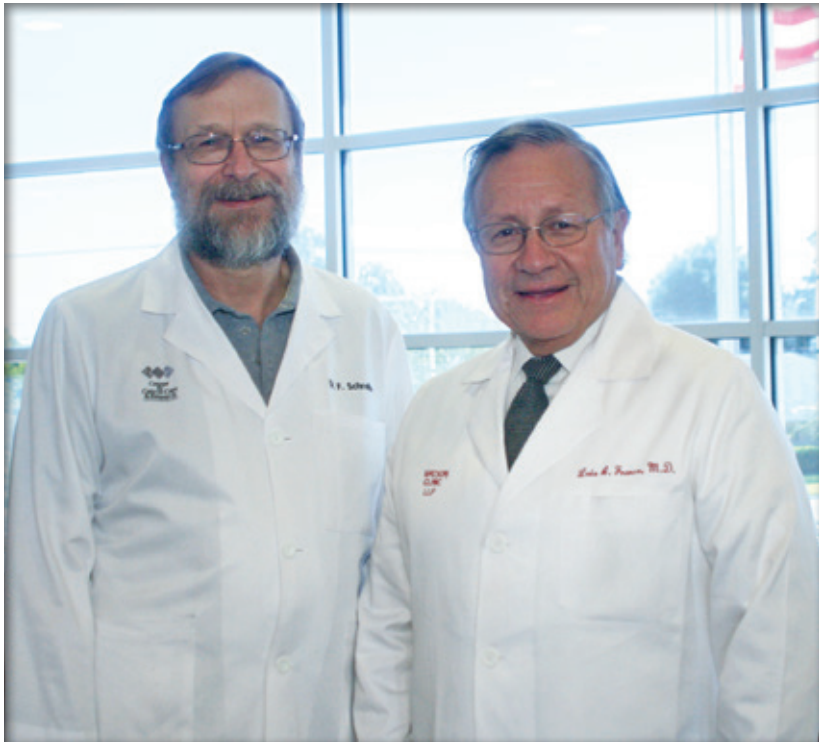
CANCER COMMITTEE

PHYSICIAN MEMBERS

Dr. John Barrett, Radiation Oncology
Dr. Elisabeth Dupont, Breast Surgery
Dr. Luis Franco, Medical Oncology/Hematology,
Dr. Edward Garcia, Pathology
Dr. Howard Gorell, Radiology
Dr. Thomas Moskal, Surgical Oncology
Dr. Shalini Mulaparthi, Medical Oncology/Hematology, Cancer Liaison Physician 2014
Dr. Fred Schreiber, Medical Oncology/Hematology, Chairman
Dr. Sandra Sha, Radiation Oncology
Dr. Galina Vugman, Medical Oncology/Hematology

PHYSICIAN-ASSOCIATE MEMBERS

Dr. Richard Cardosi, GYN Oncology
Dr. Jens Carlsen, Urology
Dr. Tim Dickason, Pathology
Dr. Randy Heysek, Radiation Oncology
Dr. Scott Kelley, Surgery
Dr. David Lowry, Radiology
Dr. Jack Thigpen, Surgery



ACTIVITY COORDINATORS

Cauney Bamberg, Director, Watson Clinic Foundation, Community Outreach
Cindy Bruton, Sr. Administrative Assistant, Cancer Conference
Monique Hakins, MSW, Social Services, Psychosocial Services
Helen Lewis, BS, CTR, Cancer Registry Quality
Noreen McGowan, BSN, CCRC, Director, Watson Clinic Center for Research
Tracey Mensing, RN, BSN, OCN, Chemotherapy/Oncology Nursing, Quality Improvement

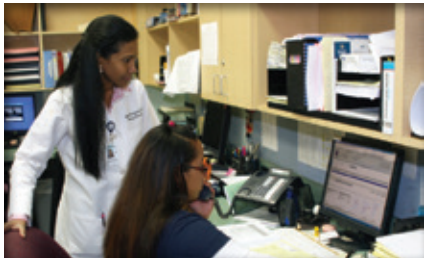
NON-PHYSICIAN MEMBERS

Mary Ann Blanchard, RN, BS, Director, Clinical Services
Mashell Hooker, RN, OCN, Chemo Charge Nurse
Jerri Huntt, MSW, LCSW, Women's Center Social Services
Ann Lehman, BSW, Cancer Center Social Services
Zejian Liu, PhD, MS, DABR, Radiation Physicist
Carol Martin, RN, Women's Center Clinical Services Coordinator
Stephanie McLean, American Cancer Society Area Patient Representative
Jennifer Snider, CTR, Cancer Program Coordinator
Adam Tazi, PhD, DABR, Radiation Physicist
Shirley Willis, ARNP-C, Cancer Center Clinical Services Coordinator

NURSE COMMITTEE REPORT

Our oncology nurses are highly skilled and passionate about what they do. They call upon their impressive scientific knowledge, technical skill, and compassionate spirit to assist patients and their families through every step of their cancer journey.

Utilizing the guidelines provided by the Oncology Nursing Society (ONS) and the Commission on Cancer (CoC), our nursing professionals are highly educated regarding safe handling of chemotherapy medications, care of the patient including side effect management, and other specific issues related to Oncology. While the CoC requires only 25% of nurses to be Oncology Certified Nurses (OCN), over 75% of our chemotherapy nurses currently posses this certification. Exceeding the highest standards of care is an essential part of what defines us, and it helps our patients feel confident about the qualifications of their caregivers.



Every two years, our chemotherapy nurses are required to take the ONS-approved chemotherapy and biotherapy administering test to ensure they are up to date on the latest in chemotherapy mixing regulations and safe-handling. Maintaining the competency of our entire medical staff is of the upmost importance. We have annual evacuation and bi-annual simulation drills for refresher training, including emergency codes and CPR courses to ensure that we are prepared in the event of any emergency.

To support our nursing staff, we have a seven-member nurse committee consisting of chemotherapy nurses, an office nurse, surgical oncology nurse, a nurse navigator, and nurse managers. This group meets monthly to monitor, evaluate, and improve current processes, thus increasing the safety and quality of patient care.

"The chemotherapy nurses are super. They're my family. We don't leave until we hug everybody."

Anna Whalen,
Colon Cancer Survivor

Accomplishments This Year

- Two years ago, as a symbol of celebration for our survivors, we implemented a bell for patients to ring when they have completed their last radiation and/or chemotherapy treatment. The response to this has been overwhelming from both patients and their families. We recognize, however, that there are situations, like long-term maintenance therapy, where a patient may not achieve that "last treatment" moment. For those patients, the nurse committee developed a certificate to honor them and their caregivers. They are presented with these certificates during a pivotal time in their treatment.
- A local community group donated portable DVD players and a movie collection to the chemotherapy room. This has enabled patients that may not have their own electronic devices to relax and watch movies while they are receiving their chemotherapy treatments, and inspired additional visitors to donate their own movies to the ever-increasing library.
- We celebrate Nurses Week every year to honor all the hard working nurses at our cancer center. This year was a particularly exceptional occasion due to the fact that two of our very own nurses were honored in our local community. Mashell Hooker, RN, was given the Polk County Nurse of the Year award, and Lynne Garver, LPN, was recognized as this year's Nurse of Hope.

NURSE NAVIGATION

The Oncology Nursing Society defines navigation as "individualized assistance offered to patients, families, and caregivers to help overcome healthcare system barriers and facilitate timely access to quality health and psychosocial care from pre-diagnosis through all phases of the cancer experience." We were one of the first centers in our area to create a nurse navigation program. Here at the CCCR, our nurse navigator teaches a chemotherapy education class to all patients starting chemotherapy. This year over 400 patients and their caregivers have attended this vital class. The class is offered 3 times a week to accommodate patient's busy schedules. It consists of 1.5 hours of instruction along with a power point on how the chemotherapy treatment process works. Topics covered during this class include side-effect management, understanding insurance, what to expect while you are at our facility, and introducing the myriad of resources that are available to them right here on campus. They are also given written materials on these topics to refer to, as well as contact information if they have further questions. The class then concludes with a tour of our facility.

Patients who are receiving concurrent treatment with chemotherapy and radiation receive even more specific guidance from our nurse navigator. She works collaboratively with the chemotherapy department and radiation therapy department to streamline the patient's schedules. This helps reduce wait times for patients and increases communication between departments.

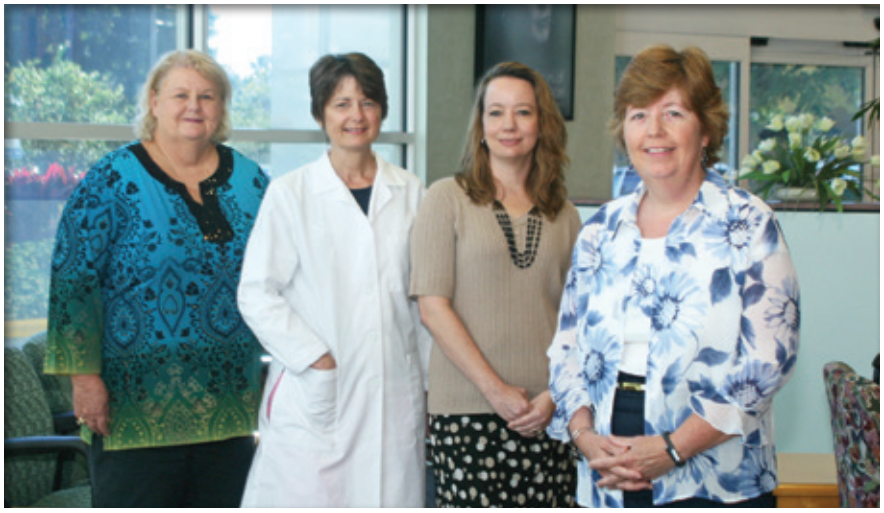
Our navigator also works closely with Informed DNA, a telephonic genetic counseling organization. She coordinates the genetic counseling referrals and arranges any testing that is ordered through Informed DNA for our high-risk patients.

Our navigator also serves on various committees at the cancer center as the voice of the patients. She works closely with physicians, social workers, financial counselors, and multiple departments within our clinic to ensure we are addressing any barriers our patients have to quality care. Our patient's have comfort in knowing if they need help with any aspect of care, they can contact our nurse navigator and she will do everything within her power to help that patient or find someone who can.

"Had we not received such wonderful treatment, I probably would not be talking to you today."

Edgar Lee,
Head and Neck, Prostate and Skin Cancer Survivor

CENTER FOR RESEARCH



Since our inception in 1985, the Watson Clinic Center for Research has been dedicated to fostering research in all the common cancer areas such as breast, colorectal, leukemia, lung, prostate, pancreatic, ovarian and uterine. Watson Clinic Center for Research provides the administrative infrastructure upon which the Center for Cancer Care & Research can perform research studies and clinical trials.

This multi-specialty group is a center of excellence for cancer care and research, working with Moffitt Cancer Center to conduct oncology research. Watson Clinic's oncology physician investigators comprise one of the finest independent physician groups in the area. The oncology clinical investigators consist of four medical oncologists, one gynecologic oncologist, three radiation oncologists and four additional surgeons including one breast surgeon. These investigators pride themselves in the latest cancer detection and technologists. Through the Center for Cancer Care & Research the Watson Clinic physicians can provide their large patient base the opportunity to have access to innovative chemotherapy and radiation treatments through the numerous Phase II and III clinical trials open within the network. Our research efforts are comprised of cooperative trials, pharmaceutical trials, tissue procurement trials and investigator initiated trials.

The Center for Cancer Care & Research has about 2,500 new patient referrals annually with approximately 1,500 being new oncology referrals. A clinical trial is evaluated before a patient has treatment or surgery. The investigators meet weekly to conduct tumor boards. At each of these weekly meetings, all new patients are presented and trial eligibility is discussed. Our research group has five (5) Certified Clinical Research Coordinators (CCRC) who follow the strict Good Clinical Practice guidelines to manage all aspects of clinical oncology research. The coordinators screen, consent and complete regulatory and clinical research data pertinent to all protocol requirements. Our research team meets monthly to review trial enrollment, new trial opportunities and all trial on-site and off-site outcome reports. Our team-work conducts quality outcome research to improve and make available new treatment regimes and strategies.

All patients at the Center for Cancer Care & Research, when appropriate for a trial, are encouraged to participate in a clinical trial and/or tissue procurement trial. The mission of conducting research is an integral part of our practice, and our ultimate goal is to improve patient outcomes through evidence based medicine.

CANCER CONFERENCES

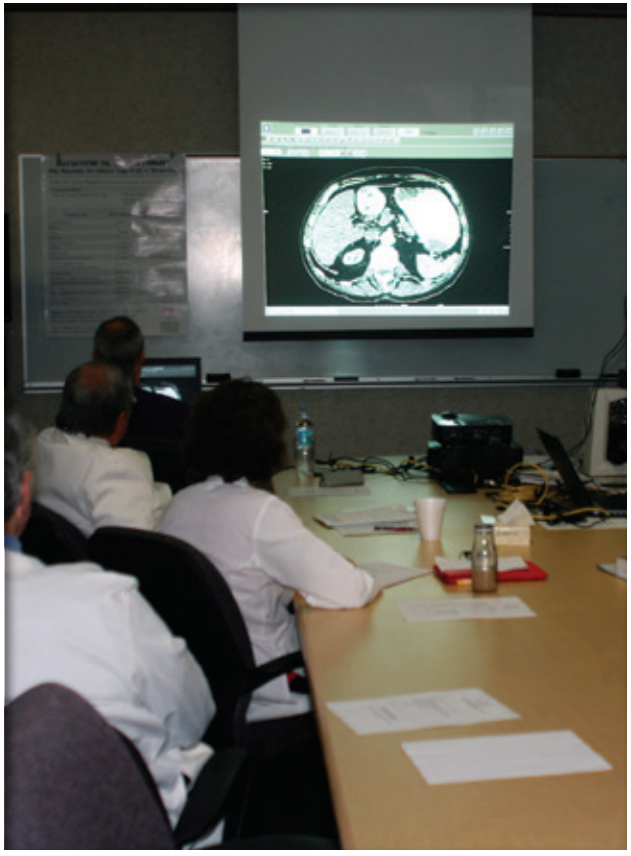
Cancer conferences not only serve as a forum for prospective review of cancer cases, involving a multidisciplinary team in the patient care process, but also offer education for the physicians and staff as well. Our multidisciplinary team includes physicians in the departments of hematology/medical oncology, radiation oncology, surgical oncology, pathology, diagnostic radiology, and other specialties, as well as allied health professionals from research, nursing, social services, cancer registry and administration. They attend cancer conferences three times a week for collaborative discussion of diagnosis, stage, prognostic factors, and national treatment guidelines pertaining to the cases presented and cancer related educational activities.

Year End 2013

Total # of Cancer Conferences	95
Total # of Cases Presented (89% of Analytic Caseload)	800
Total # of Cases Presented Prospectively (99% of Cases Presented)	789
Total # of Cancer Related Educational Activities	17

YTD July 31, 2014

Total # of Cancer Conferences	54
Total # of Cases Presented (50% of Analytic Caseload)	452
Total # of Cases Presented Prospectively (100% of Cases Presented)	452
Total # of Cancer Related Educational Activities	10



ACTIVITY REPORT

"I would recommend Watson Clinic's Cancer Center to anyone. The doctors are professional and down to earth, and make you feel at ease."

Rosie Patterson, Breast Cancer Survivor

Cancer Registrars capture a complete summary of patient history, diagnosis, staging of disease, treatment, and annual follow-up (lifetime for all analytic cases) for every cancer patient in the United States, and other countries as well. Cancer Registries are required by state statute and federal law to report these cases. The purpose of this data collection is for educating the public, research and outcome measurements.

CCCR data is reported to our state registry, known as the Florida Cancer Data Systems (FCDS), and to the National Cancer Data Base (NCDB), which is the Commission on Cancer (CoC) of the American College of Surgeons' (AcoS) nationwide oncology outcomes database for more than 1,500 Commission accredited cancer programs. In addition to maintaining CCCR data, the Cancer Registry also collects and maintains data for Watson Clinic (WC).

The Cancer Registry team here at CCCR has a collective total of 80 years of experience.

Paula Buck, CTR, Abstractor

Valerie Fisher, Follow-Up Data Specialist

Evelyn Gorman, BAS, CCRC, Abstractor

Helen Lewis, BS, CTR, Lead Abstractor/Quality Coordinator

Aprill Rease, CTR, Abstractor

Jennifer Snider, CTR, Cancer Program Coordinator

The following series of graphs and tables demonstrate an overview of some of the information recorded in the cancer registry database, to include:

- List of total 2013 accessioned cases for CCCR (total accessioned/newly diagnosed)
- List of total 2013 accessioned cases for WC
- Five most frequent CCCR cancer sites
- Five most frequent female CCCR cancer sites
- Five most frequent male CCCR cancer sites
- Five most frequent CCCR cancer sites compared to Florida and national incidence
- Age at diagnosis
- Stage at diagnoisis for all CCCR cancer sites combined
- County of residence at time of diagnosis

Table 1: Total 2013 Cases for Center for Cancer Care & Research

PRIMARY SITE	CASES	MALE	FEMALE	ANALYTIC	ANALYTIC PLUS*	NON-ANALYTIC
ALL SITES	1089	481	608	667	850	239
TONGUE	13	8	5	7	9	4
PHARYNX	8	7	1	7	7	1
OTHER ORAL CAVITY	8	7	1	5	6	2
ESOPHAGUS	9	7	2	6	7	2
STOMACH	10	6	4	3	10	0
COLON	48	26	22	21	34	14
RECTUM	15	7	8	9	14	1
ANUS/ANAL CANAL	5	1	4	4	5	0
LIVER	5	2	3	4	4	1
PANCREAS	34	22	12	21	32	2
OTHER DIGESTIVE	7	4	3	4	6	1
LARYNX	7	5	2	5	5	2
LUNG/BRONCHUS	134	76	58	90	118	16
OTHER RESPIRATORY	3	2	1	3	3	0
LEUKEMIA	49	23	26	33	38	11
MULTIPLE MYELOMA	20	7	13	17	18	2
OTHER BLOOD & BONE MARROW	26	14	12	17	18	8
CONNECT/SOFT TISSUE	3	2	1	3	3	0
MELANOMA	83	48	35	29	48	35
OTHER SKIN	7	6	1	5	7	0
BREAST	283	1	282	216	243	40
CERVIX UTERI	9	0	9	7	7	2
CORPUS UTERI	28	0	28	18	20	8
OVARY	14	0	14	12	12	2
PRIMARY PERITONEAL	3	0	3	3	3	0
VULVA	3	0	3	0	0	3
OTHER FEMALE GENITAL	4	0	4	3	3	1
PROSTATE	138	138	0	51	85	53
TESTIS	5	5	0	1	4	1
OTHER MALE GENITAL	1	1	0	0	1	0
BLADDER	22	15	7	11	11	11
KIDNEY/RENAL	4	2	2	1	2	2
OTHER URINARY	3	1	2	1	2	1
BRAIN (BENIGN)	0	0	0	0	0	0
BRAIN (MALIGNANT)	9	5	4	8	9	0
OTHER CNS	3	1	2	0	0	3
THYROID	8	4	4	2	5	3
OTHER ENDOCRINE	1	0	1	0	0	1
HODGKIN LYMPHOMA	4	2	2	1	1	3
NON-HODGKIN LYMPHOMA	39	18	21	27	37	2
UNKNOWN PRIMARY	11	5	6	10	11	0
OTHER/ILL-DEFINED	3	3	0	2	2	1

* Total accessioned cases; includes analytic plus class 30 per Commission on Cancer definitions

Table 2: Total 2013 Cases for Watson Clinic LLP

PRIMARY SITE	CASES	MALE	FEMALE	ANALYTIC	ANALYTIC PLUS*	NON-ANALYTIC
ALL SITES	**1785**	**816**	**969**	**1086**	**1500**	**285**
TONGUE	17	13	4	7	13	4
PHARYNX	8	7	1	3	7	1
OTHER ORAL CAVITY	11	8	3	4	9	2
ESOPHAGUS	6	5	1	1	6	0
STOMACH	11	7	4	1	11	0
COLON	52	26	26	6	37	15
RECTUM	18	11	7	2	14	4
ANUS/ANAL CANAL	4	0	4	0	4	0
LIVER	6	3	3	1	3	3
PANCREAS	32	18	14	10	31	1
OTHER DIGESTIVE	3	2	1	1	3	0
LARYNX	6	4	2	1	4	2
LUNG/BRONCHUS	118	61	57	45	105	13
OTHER RESPIRATORY	5	4	1	0	5	0
LEUKEMIA	39	21	18	17	26	13
MULTIPLE MYELOMA	11	5	6	2	9	2
OTHER BLOOD & BONE MARROW	19	11	8	2	9	10
CONNECT/SOFT TISSUE	1	0	1	1	1	0
MELANOMA	560	324	236	495	502	58
OTHER SKIN	9	7	2	8	9	0
BREAST	317	0	317	213	273	44
CERVIX UTERI	15	0	15	4	11	4
CORPUS UTERI	69	0	69	20	62	7
OVARY	24	0	24	9	20	4
PRIMARY PERITONEAL	2	0	2	1	2	0
VULVA	15	0	15	9	13	2
OTHER FEMALE GENITAL	7	0	7	1	6	1
PROSTATE	185	185	0	109	133	52
TESTIS	4	4	0	2	3	1
OTHER MALE GENITAL	1	1	0	0	1	0
BLADDER	42	31	11	23	32	10
KIDNEY/RENAL	25	19	6	15	22	3
OTHER URINARY	4	1	3	1	3	1
BRAIN (BENIGN)	4	0	4	3	4	0
BRAIN (MALIGNANT)	7	3	4	3	6	1
OTHER CNS	31	4	27	20	23	8
THYROID	24	5	19	16	19	5
OTHER ENDOCRINE	21	4	17	9	15	6
HODGKIN LYMPHOMA	2	1	1	1	2	0
NON-HODGKIN LYMPHOMA	36	14	22	13	29	7
UNKNOWN PRIMARY	11	6	5	4	10	1
OTHER/ILL-DEFINED	3	1	2	3	3	0

*Total accessioned cases; includes analytic plus class 30 per Commission on Cancer definitions

Table 3: Newly Diagnosed 2013 Cases for Center for Cancer Care & Research

PRIMARY SITE	CLASS		GENDER		TNM STAGE AT DIAGNOSIS						
	Analytic Plus*	Analytic	MALE	FEMALE	0	I	II	III	IV	UNK**	N/A***
ALL SITES	850	667	361	489	29	296	154	108	141	24	98
ORAL CAVITY	22	19	18	4	0	4	0	4	12	1	1
TONGUE	9	7	6	3	0	3	0	1	5	0	0
PHARYNX	7	7	6	1	0	0	0	2	5	0	0
OTHER	6	5	6	0	0	1	0	1	2	1	1
DIGESTIVE SYSTEM	112	72	61	51	0	22	32	23	33	1	1
ESOPHAGUS	7	6	6	1	0	1	2	2	2	0	0
STOMACH	10	3	6	4	0	3	5	0	2	0	0
COLON	34	21	17	17	0	7	9	12	6	0	0
RECTUM	14	9	6	8	0	2	6	3	3	0	0
ANUS/ANAL CANAL	5	4	1	4	0	3	2	0	0	0	0
LIVER	4	4	2	2	0	1	1	0	1	0	1
PANCREAS	32	21	20	12	0	5	6	5	16	0	0
OTHER	6	4	3	3	0	0	1	1	3	1	0
RESPIRATORY SYSTEM	126	98	76	50	0	38	8	34	45	1	0
LARYNX	5	5	5	0	0	4	0	0	1	0	0
LUNG/BRONCHUS	118	90	69	49	0	34	8	34	41	1	0
OTHER	3	3	2	1	0	0	0	0	3	0	0
BLOOD & BONE MARROW	74	67	36	38	0	0	0	0	1	0	73
LEUKEMIA	38	33	18	20	0	0	0	0	1	0	37
MULTIPLE MYELOMA	18	17	7	11	0	0	0	0	0	0	18
OTHER	18	17	11	7	0	0	0	0	0	0	18
CONNECT/SOFT TISSUE	3	3	2	1	0	2	0	0	0	1	0
SKIN	55	34	37	18	6	33	6	2	5	2	1
MELANOMA	48	29	31	17	5	32	4	1	4	2	0
OTHER	7	5	6	1	1	1	2	1	1	0	1
BREAST	243	216	1	242	23	148	44	18	7	3	0
FEMALE GENITAL	45	43	0	45	0	14	4	11	11	4	1
CERVIX UTERI	7	7	0	7	0	3	0	2	2	0	0
CORPUS UTERI	20	18	0	20	0	10	1	3	3	3	0
OVARY	12	12	0	12	0	1	2	3	5	1	0
PERITONEAL PRIMARY	3	3	0	3	0	0	0	2	1	0	0
VULVA	0	0	0	0	0	0	0	0	0	0	0
OTHER	3	3	0	3	0	0	1	1	0	0	1

CONTINUED ON NEXT PAGE >

Table 3: Newly Diagnosed 2013 Cases for Center for Cancer Care & Research (Continued)

PRIMARY SITE	CLASS		GENDER		TNM STAGE AT DIAGNOSIS						
	Analytic Plus*	Analytic	MALE	FEMALE	0	I	II	III	IV	UNK**	N/A***
MALE GENITAL	90	52	90	0	0	25	43	6	9	7	0
PROSTATE	85	51	85	0	0	21	42	6	9	7	0
TESTIS	4	1	4	0	0	3	1	0	0	0	0
OTHER	1	0	1	0	0	1	0	0	0	0	0
URINARY SYSTEM	15	13	7	8	0	0	9	1	5	0	0
BLADDER	11	11	6	5	0	0	8	1	2	0	0
KIDNEY/RENAL	2	1	0	2	0	0	0	0	2	0	0
OTHER	2	1	1	1	0	0	1	0	1	0	0
BRAIN & CNS	9	8	5	4	0	0	0	0	0	0	9
BRAIN (BENIGN)	0	0	0	0	0	0	0	0	0	0	0
BRAIN (MALIGNANT)	9	8	5	4	0	0	0	0	0	0	9
OTHER	0	0	0	0	0	0	0	0	0	0	0
ENDOCRINE SYSTEM	5	2	3	2	0	2	1	2	0	0	0
THYROID	5	2	3	2	0	2	1	2	0	0	0
OTHER	0	0	0	0	0	0	0	0	0	0	0
LYMPHATIC SYSTEM	38	28	18	20	0	6	7	7	13	4	1
HODGKIN LYMPHOMA	1	1	1	0	0	0	0	1	0	0	0
NON-HODGKIN LYMPHOMA	37	27	17	20	0	6	7	6	13	4	1
UNKNOWN PRIMARY	11	10	5	6	0	0	0	0	0	0	11
OTHER/ILL-DEFINED	2	2	2	0	0	2	0	0	0	0	0

* Total newly diagnosed cases; includes analytic plus class 30 per Commission on Cancer definitions
** UNK - unknown stage, case not able to be staged
*** N/A - not applicable, no AJCC staging schema exists for this cancer site/histology combination

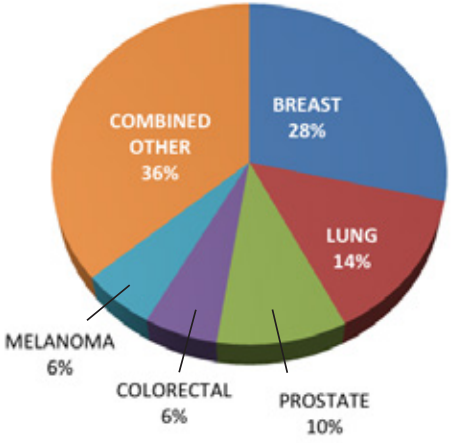
MOST FREQUENT CANCER SITES IN 2013

The five most frequent cancer sites of newly diagnosed cases seen at CCCR in 2013 were breast (29%), lung (14%), prostate (10%), colorectal (6%) and melanoma (6%). These were the same most frequent cancer sites as in 2012 with the exception that melanoma replaced non-Hodgkin lymphoma as the fifth most frequent cancer. These five sites accounted for almost two-thirds (64%) of the newly diagnosed cases seen at CCCR last year. More than three-fourths (78%) of all CCCR cases in 2013 were newly diagnosed at the time of their first visit.

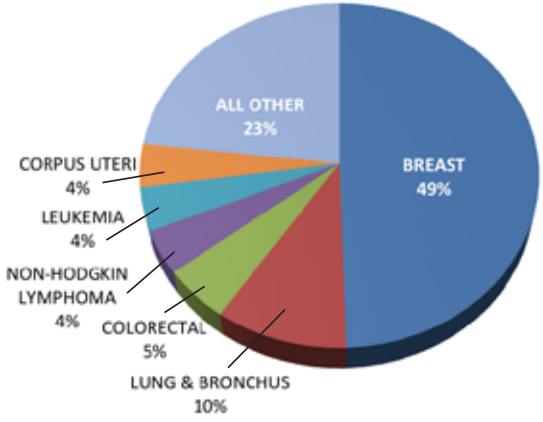
Almost half of the female newly diagnosed cancers seen at CCCR in 2013 were breast cancer (49%). Lung cancer (10%) and colorectal (5%) were second and third most frequent. In 2013, CCCR saw exactly the same number of non-Hodgkin lymphoma, leukemia and uterine malignancies, each accounting for 4% of female cancers. These six sites accounted for 77% of newly diagnosed female cancers.

The five most frequent male cancers were prostate (24%), lung (19%), melanoma (9%), colorectal (6%) and pancreas (6%). Pancreatic cancer replaced non-Hodgkin lymphoma as one of the top five male cancers when compared to last year. These five cancers account for almost two-thirds (63%) of newly diagnosed male cancers seen in 2013.

Distribution of 2013 CCCR Cases

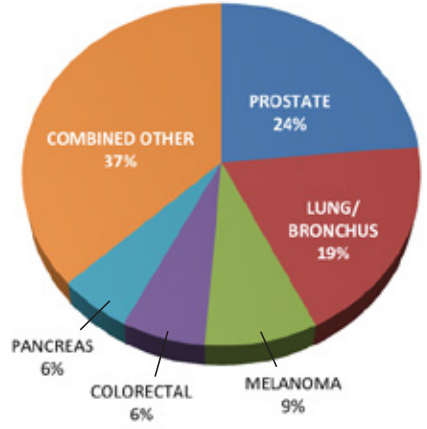


Distribution of 2013 CCCR Female Cases



Note: Total less than 100% due to rounding.

Distribution of 2013 CCCR Male Cases

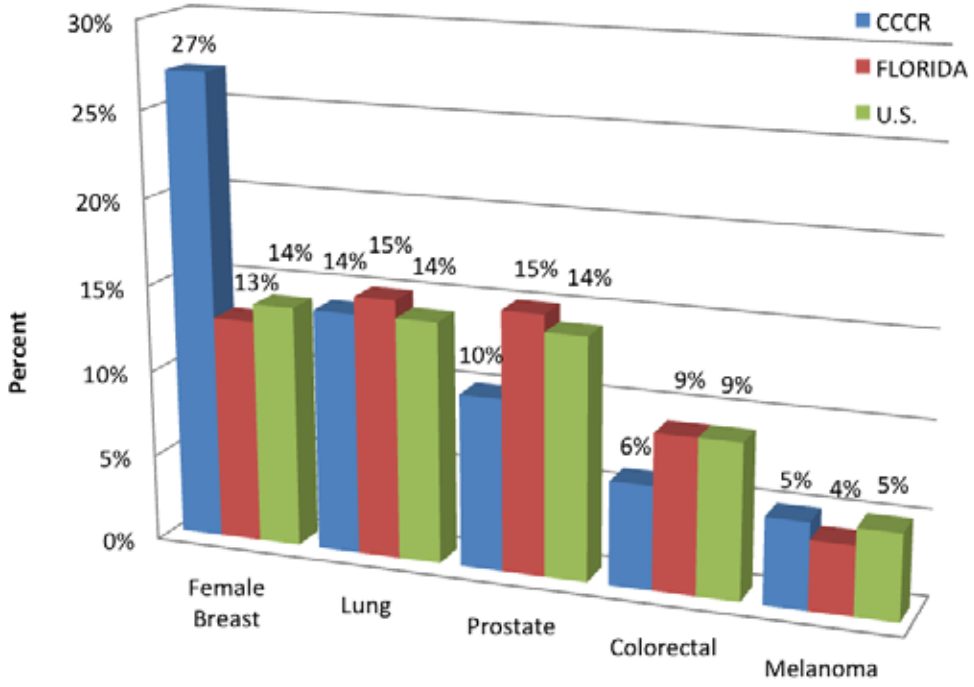


Note: Total less than 100% due to rounding.

CCCR 2013 FREQUENCY COMPARED TO FLORIDA & NATIONAL INCIDENCE

Incidence represents all newly diagnosed, invasive cancer cases within a geographic area, for example a county, a state or a country. Facilities can count only frequency, the number of cancer cases that come to their facility. The following graph compares frequency of the top five CCCR invasive cancer sites to Florida and national incidence for the same cancer sites. The top five CCCR cancers are not necessarily the same top five for Florida or the United States every year. Florida's top five sites in 2013 were female breast, lung, prostate, colorectal and bladder (5%) in that order. Melanoma was sixth. The top five sites in the United States were the same as the five top CCCR sites. However, the order was slightly different based on actual numbers of cases. Prostate cancer was second highest by about 10,000 cases. The comparison shows that we see approximately twice as much breast cancer as state and national incidence would indicate.

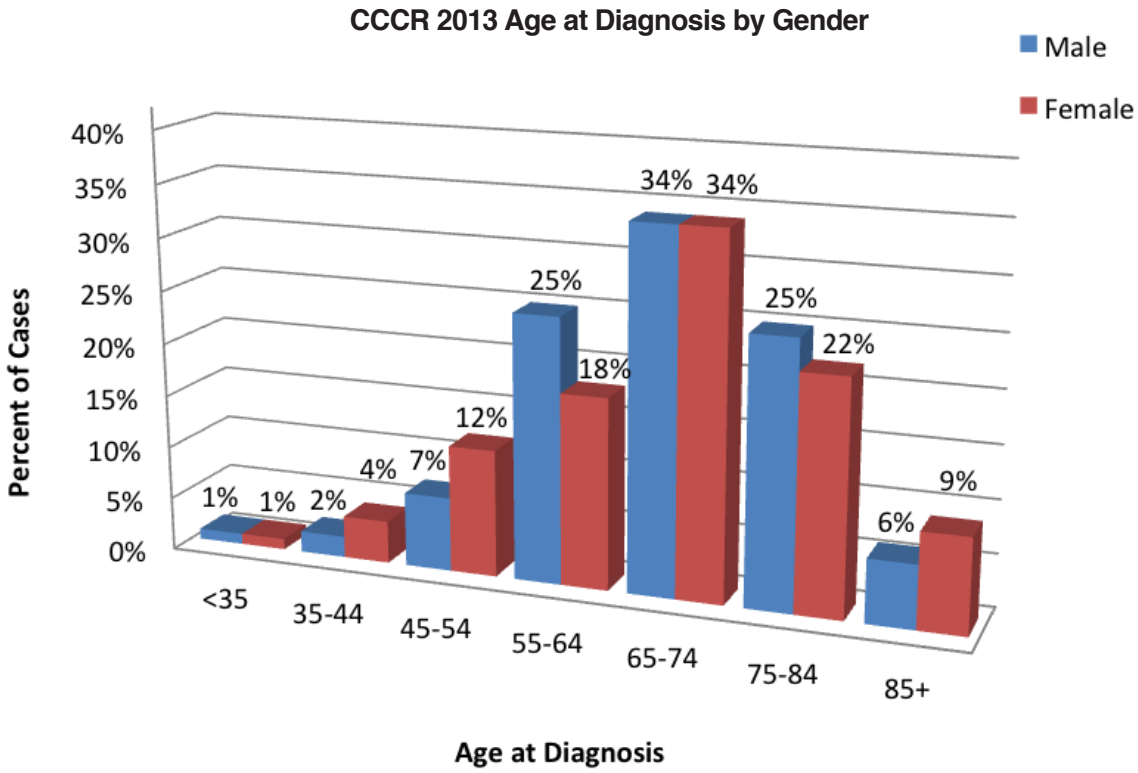
CCCR Cancer Site Frequency Compared to Florida and National Incidence



Source of U.S. & Florida data: Cancer Facts & Figures 2013, American Cancer Society

AGE AT DIAGNOSIS BY GENDER OF CCCR 2013 CASES

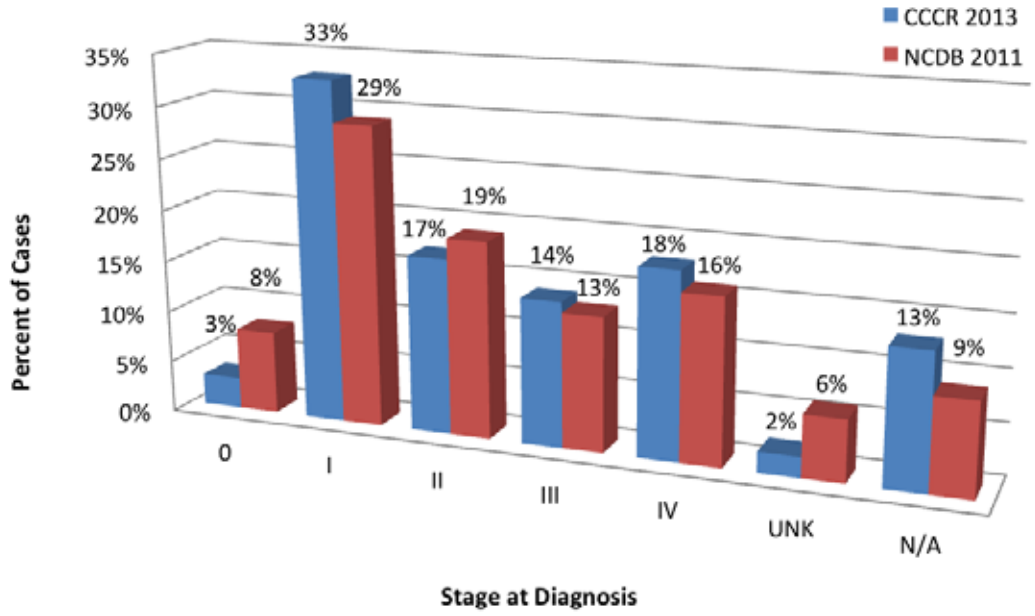
Of the 850 newly diagnosed CCCR cases in 2013, 361 (42%) were male and 489 (58%) were female. Almost two-thirds (65%) were age 65 or older, a slightly higher percentage than the past two years. Of the male patients, 236 (65%) were age 65 or older. Of the female patients, 313 (64%) were 65 or older. Average age of male patients was 68; average age of female patients was 67; and average age for all newly diagnosed patients was 68. All three averages were approximately the same as the previous year.



CCCR 2013 STAGE AT DIAGNOSIS COMPARED TO NCDB

Because the National Cancer Data Base (NCDB) includes only analytic cancer cases as defined by the Commission on Cancer (CoC), only analytic cases from the Cancer Registry were used in the following comparisons. Analytic cases are a subset of newly diagnosed cancers. (See the glossary for complete definitions). The most recent data year available from NCDB was 2011, which was also the data year used in last year's annual report. Since then additional cases for year 2011 have been reported to NCDB (707,264 cases in 2012 vs. 1,169,795 in 2013). The updated 2011 NCDB data were compared to CCCR's 667 analytic cases from 2013. Of the CCCR cases, 53% were early stage (stages 0, I & II), similar to last year. NCDB early stage was 56%. Late stage (stages III & IV) accounted for 32% of CCCR cases, same as last year and similar to the 29% late stage NCDB cases. CCCR saw significantly more cases for which there were no staging schemes: 13% for CCCR and 9% for NCDB. Hematopoietic (blood and bone marrow) malignancies and brain tumors are two main categories that have no staging schemas.

CCCR 2013 State at Diagnosis Compared to NCDB 2011

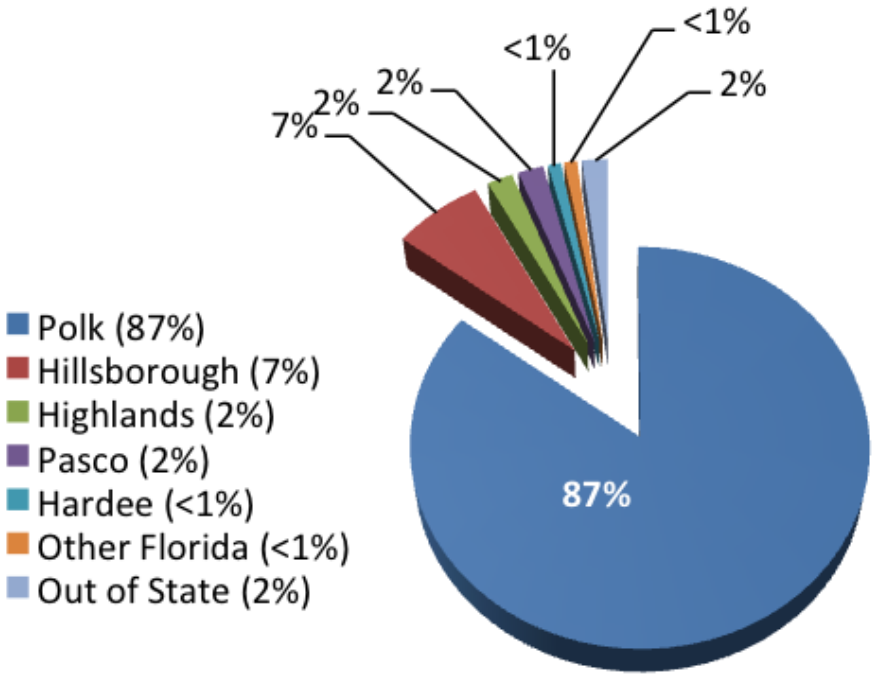


Source of NCDB data: 2014 National Cancer Data Base Benchmark Reports

COUNTY OF RESIDENCE AT DIAGNOSIS OF CCCR 2013 CASES

The residential sources of CCCR newly diagnosed patients in 2013 changed very little from the previous year. The majority of patients (87%) resided in Polk County at the time of their diagnosis — about the same as in 2012 (86%). Hillsborough County increased slightly from 6% of patients in 2012 to 7% in 2013. Highland and Pasco Counties also increased from 1% of patients to 2% of patients over the same time period.

CCCR 2013 County of Residence at Diagnosis



RETROSPECTIVE REVIEW OF EARLY STAGE LUNG CANCER TREATED WITH SBRT AT THE CENTER FOR CANCER CARE & RESEARCH

Andrew Mulville, Adam Tazi, PhD, Amanda Murray, CMD, Helen Lewis, BS, CTR, and John Barrett, MD, PhD

LUNG CANCER STUDY

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is present in 50–70% of patients with lung cancer at the time of diagnosis [1]. COPD is an independent predictor of lung cancer, even after controlling for smoking history [1,2,3]. Lung cancer risk increases as forced expiratory volume in 1 second (FEV1) decreases, with the risk highest in patients with an FEV1 of less than 40% of predicted [1,2,3]. Patients with severe COPD have a high annual mortality rate [4,5], even in the absence of malignancy. COPD itself is associated with other comorbid conditions (including cardiovascular disease), which can in turn further reduce suitability for radical treatment [6].

Surgery has historically been the primary treatment option for patients with Stage I non-small-cell lung cancer (NSCLC). Although Stage I NSCLC is technically curable, the presence of severe COPD increases the risk of postoperative complications and reduces the extent of lung that can be safely resected [7,8]. Because nonsurgical treatment options such as conventional radiotherapy have historically achieved suboptimal outcomes [9], some have argued that the risks associated with surgery in patients with severe COPD were justified [10].

The advent of stereotactic body radiotherapy (SBRT) has provided a safe and effective alternative treatment for Stage I NSCLC in patients who are unfit for surgery or decline resection [11,12]. The role of SBRT in low-risk patients who are fit to undergo surgery is being investigated in the Phase III setting [13]. Given the higher complication rates and long-term competing mortality risks associated with severe COPD, we evaluated post-SBRT outcomes in a cohort of Stage I and a limited number of stage II NSCLC patients.

OBJECTIVES

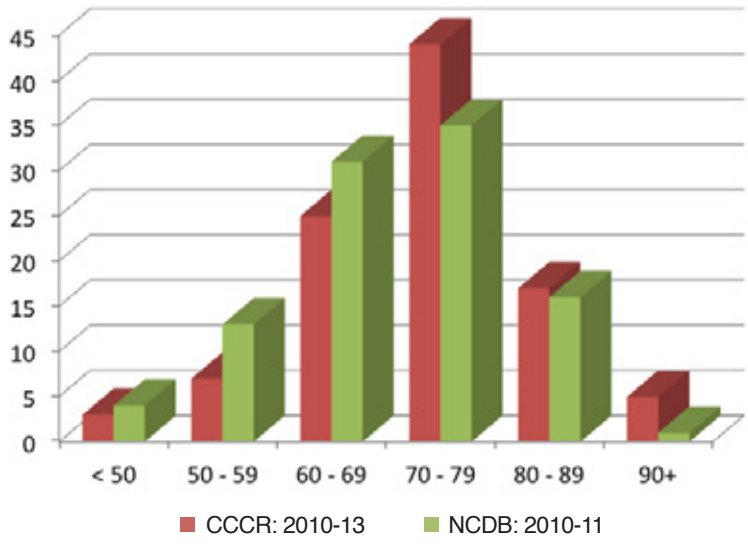
The objectives of this study were as follows: To determine local control, morbidity, and survival outcomes after curative-intent treatment with Stereotactic Body Radiation Therapy for Stage I and II NSCLC in patients, many with severe COPD or ventilatory impairment.

METHODS

Patients included in this retrospective study were poor surgical candidates or refused surgery and were treated with SBRT for Stage I or II node-negative NSCLC at the Center for Cancer Care & Research between inception of the SBRT program in 2010 and December 2013.

All patients were treated with volumetric modulated arc therapy (Rapid Arc, Varian Medical Systems Inc., Palo Alto, CA), which was implemented in 2008. No patients received adjuvant chemotherapy. Rapid Arc plans (Eclipse planning software) consisted of at least two pairs of coplanar arcs using 6-MV photons. Fractionation choice was dependent on tumor size and location. T1 tumors surrounded by lung parenchyma were treated in four fractions. T2 tumors, or T1 tumors with broad contact with the chest wall, were treated in five fractions. Centrally located tumors and tumors adjacent to the brachial plexus were not treated during that time period. With the AAA algorithm used for the Rapid Arc patients, the fractionations were 4 × 12 Gy, or 5 × 10 Gy. SBRT doses were prescribed at the 90-95% isodose line. Four-dimensional computed tomography (CT) scans (GE Medical Systems, Waukesha, WI) and MIM workstation (MIM Software, Inc., Cleveland, OH) contouring and dose review on the 4D cine and MIP images, using the VoxAlign Deformation Engine to automatically propagate the contours to all the other phases, were used to delineate internal target volumes. A planning target volume margin of 5 mm was added to account for potential baseline tumor shifts and setup errors. Respiratory gating was not used. Routine practice requires outpatient assessments at 3 to 6 monthly intervals post-SBRT with a diagnostic scan performed at each visit. Toxicity was assessed using the Common Terminology Criteria for Adverse Events, version 3.0 [14]. Post treatment pulmonary function was not measured routinely.

Figure 1: Age at Diagnosis
Stage I & II Non-Small Cell Lung Cancer



NCDB Source: National Cancer Data Base, 2014 Hospital Comparative Benchmark Reports

RESULTS

SBRT Patient Characteristics and Outcomes

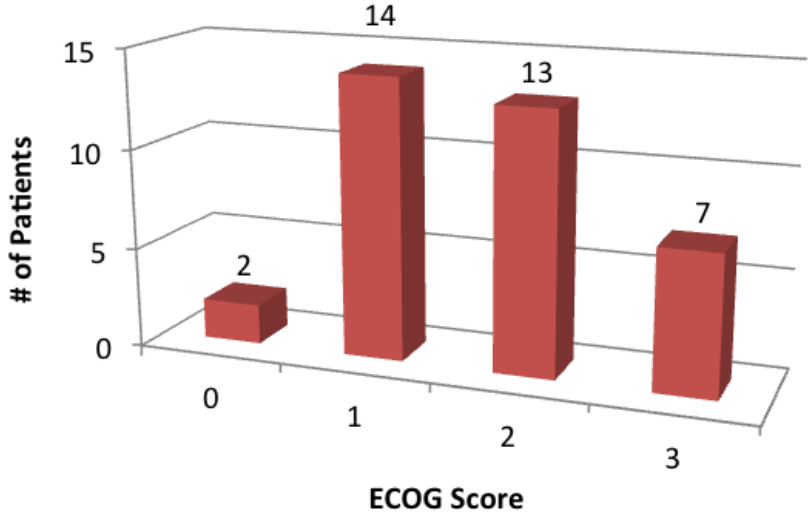
A total of 36 patients met the study criteria: 32 patients with Stage I NSCLC and 4 patients with Stage II (clinical T2aN0 only) NSCLC. All were treated between November 2010 and December 2013. As seen in Figure 1, CCCR Stage 1 and II patients tend to be older when compared to Stage I and II patients in the National Cancer Data Base (NCDB). The median age for all CCCR Stage I and II NSCLC patients for the same time period covered by the study was 72.2 (range, 44-93). The female: male distribution was approximately 1:1. The median age of the study population was older at 78.5 years (range, 60-90), and the female-to-male ratio distribution was 2:1. 83% of the patients had a smoking history and 17% were nonsmokers. ECOG performance status at baseline is noted in Figure 2.

All patients underwent a pretreatment FDG-positron emission tomography (CT/PET) scan. Most patients had T1a disease (73%), and 3 patients had a second primary T1 tumor treated synchronously. The median planning target volume was 30.9 mL.

Early side effects, occurring within 6 weeks of treatment, were uncommon and mild, with most patients (55%) experiencing Grade 1 or 2 toxicity (most commonly fatigue, cough and/or dyspnea) and the remainder suffering no discernible acute side effects. One patient died early of cardiac etiology not thought to be related to treatment. Late side effects (occurring > 6 weeks after treatment) of Grade 3 or more were uncommon: 3 patients developed Grade 3 radiation pneumonitis, or exacerbation of COPD requiring hospitalization (Figure 3). All Grade 3 toxicities ultimately resolved.

During the post-treatment follow-up period through June 2014, there was 1 local relapse (crude rate 3%), 5 regional relapses, (crude rate 14%) and 3 distant relapses

Figure 2: Baseline ECOG Scores (Stage I & II)



(crude rate 8%), and 10 deaths (with some patients having more than one of these events). Although some of the deaths were due to exacerbation of COPD, it is not thought that the SBRT contributed directly to any of the deaths. Three-year actuarial local control was 97% (Figure 4). Overall survival was 58% at 3 years. In comparison, same stage NSCLC patients in our tumor registry receiving no treatment or non-SBRT treatment (chemotherapy, surgery, or conventional radiation therapy, had 3 year overall survival of 45% (Figure 5).

DISCUSSION

This single-institutional study suggests that SBRT achieves comparable long-term survival outcomes to surgical resection for patients with Stage I, II NSCLC even in the setting of severe COPD or ventilatory dysfunction. SBRT is associated with low risks of treatment-related mortality, rarely requires a hospital stay, and is associated with a favorable toxicity profile.

However, the long-term survival of patients in this review is relatively poor, likely because of a higher risk of death from non–lung cancer causes. In the first US National Health and Nutrition Examination Survey 19% of patients with severe COPD had died within 5 years [4]. In

Figure 3: Late Toxicity

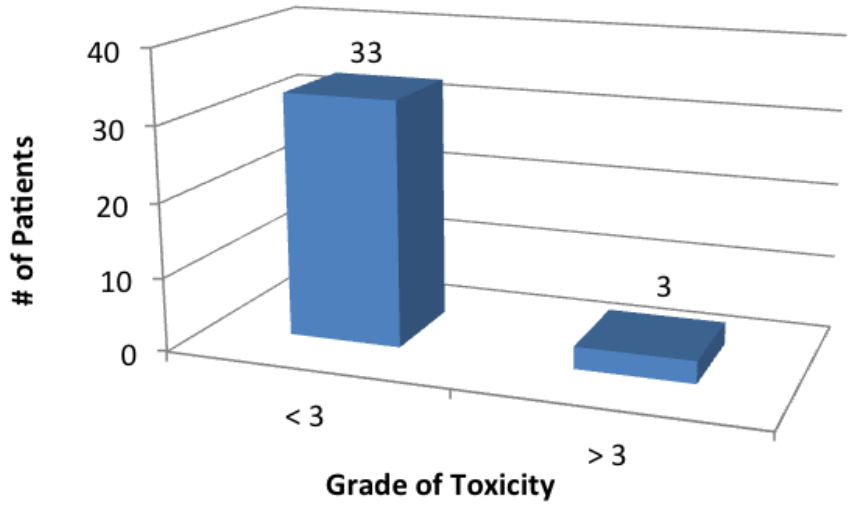


Figure 4: Stage I & II Percentage of Overall Recurrence

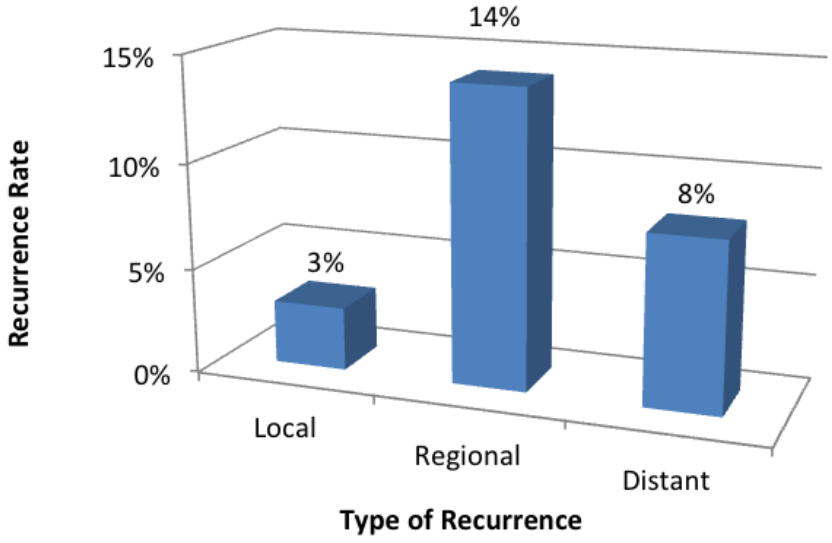
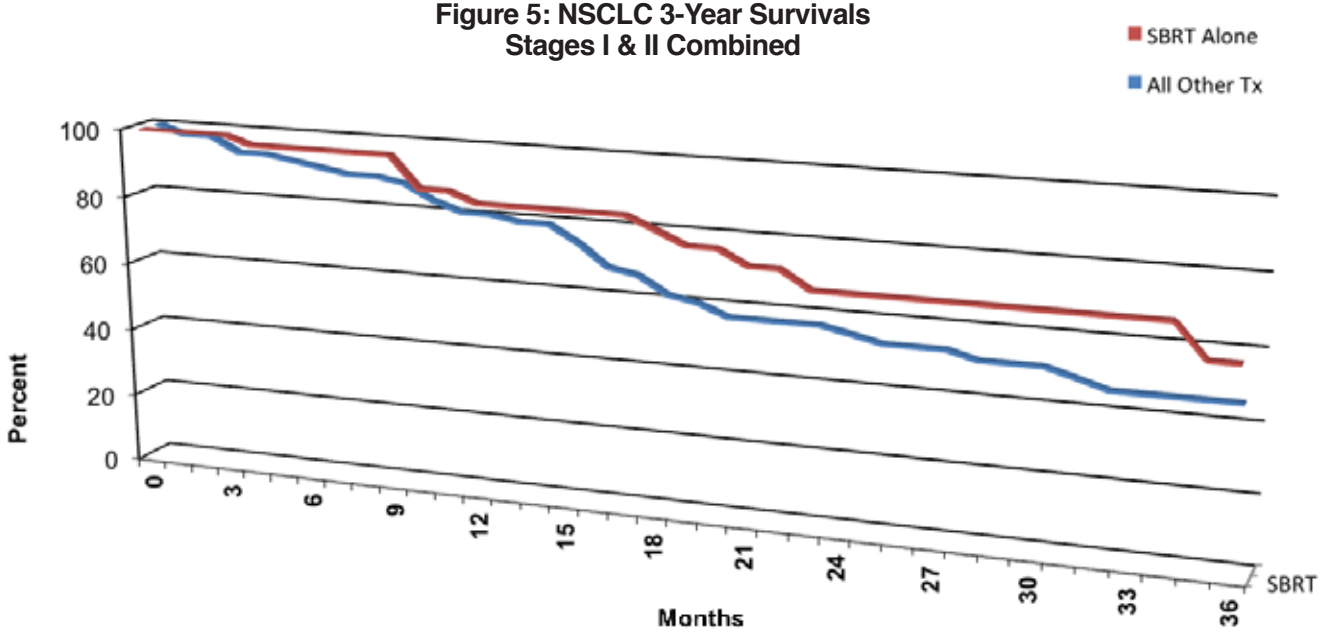


Figure 5: NSCLC 3-Year Survivals
Stages I & II Combined



the US National Emphysema Treatment Trial comparing medical therapy with lung volume reduction for patients with severe COPD (median FEV1 27% predicted), the annual death rate was 11%. This high competing risk of death from non–cancer causes can result in a lower rate of lung cancer death.

The use of surgery or SBRT as primary treatment for Stage I NSCLC has been the subject of increasing recent interest, and the question is being examined in Phase III trials [13]. However, even after these are completed, the outcomes may not necessarily apply to patients with severe COPD; this will depend on the characteristics of patients enrolled. Surgery less radical than lobectomy, such as wedge resection, has been successfully employed in patients with poor lung function, but local recurrence rates are a concern. A retrospective review of 124 patients with stage I lung cancer who were ineligible for anatomic lobectomy, compares the experience of SBRT with that of wedge resection at William Beaumont Hospital [15]. At 30 months, SBRT reduced the risk of local recurrence to 4% versus 20% for wedge resection. There were no differences in cause –specific survival between the two modalities.

Surgery, because it is invasive, confers two theoretical advantages over SBRT: definitive pathological diagnosis and more complete nodal staging. These possible benefits should be carefully considered. A lack of pathological confirmation may be considered as a weakness of some SBRT studies, where many patients do not have pathological confirmation of diagnosis. Although the more definitive nodal staging provided by surgery could theoretically be beneficial (e.g., in remov-

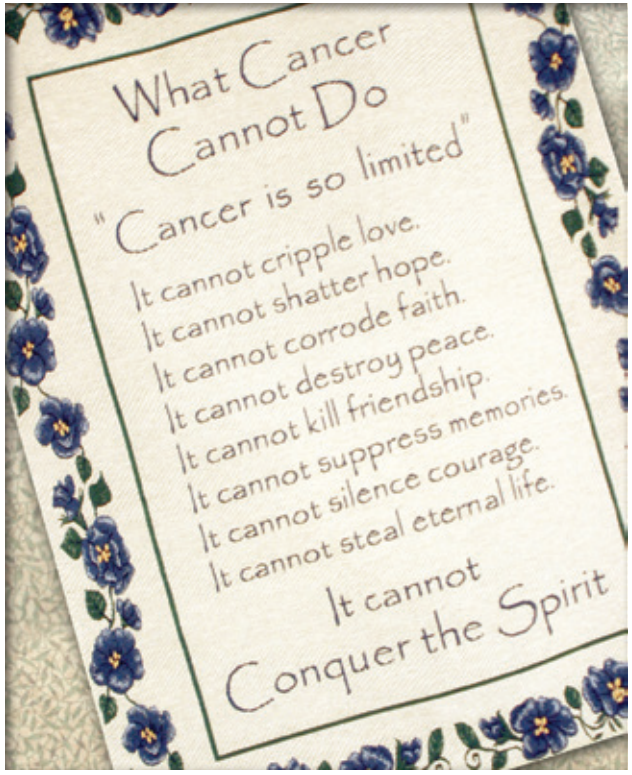
ing occult disease or identifying patients for chemotherapy), these benefits are likely to be negligible in patients with severe COPD, considering the poor general condition and high risk of intercurrent death of these patients, the relatively low risk of occult nodal disease in Stage I patients (approximately 15%), and the small absolute benefit of adjuvant chemotherapy in those who receive it (5% at 5 years). Furthermore, in patients with respiratory impairment, compliance with systematic ipsilateral lymph node sampling procedures is poor.

CONCLUSION

Limited published data are available to assess outcomes after curative treatment of Stage I NSCLC in the setting of severe COPD. SBRT is a safe and effective treatment option for these patients, with outcomes that do not appear to be inferior to surgery. SBRT is not associated with the considerable initial risks of operative mortality and prolonged hospitalization. Patients who do undergo surgery may benefit from avoiding open lobectomy, instead using less invasive approaches such as video-assisted thoracoscopic surgery or open segmentectomy. All patients with Stage I NSCLC and severe COPD should be evaluated in a multidisciplinary setting and afforded an informed decision of the risks and benefits of both surgery and SBRT.

REFERENCES

1. Loganathan, R.S., Stover, D.E., Shi, W. et al. **Prevalence of COPD in women compared to men around the time of diagnosis of primary lung cancer.** *Chest.* 2006; 129: 1305–1312Kishi, K.,
2. Gurney, J.W., Schroeder, D.R. et al. **The correlation of emphysema or airway obstruction with the risk of lung cancer: A matched case-controlled study.** *Eur Resp J.* 2002; 19: 1093–1098
3. Islam, S.S. and Schottenfeld, D. **Declining FEV1 and chronic productive cough in cigarette smokers: A 25-year prospective study of lung cancer incidence in Tecumseh, Michigan.** *Cancer Epidemiol Biomark Prevent.* 1994; 3:289–298
4. Mannino, D.M., Buist, A.S., Petty, T.L. et al. **Lung function and mortality in the United States: Data from the First National Health and Nutrition Examination Survey follow up study.** *Thorax.* 2003; 58: 388–393
5. Mannino, D.M., Doherty, D.E., and Sonia, B.A. **Global Initiative on Obstructive Lung Disease (GOLD) classification of lung disease and mortality: findings from the Atherosclerosis Risk in Communities (ARIC) study.** *Respir Med.* 2006; 100: 115–122
6. Soriano, J.B., Visick, G.T., Muellerova, H. et al. **Patterns of comorbidities in newly diagnosed COPD and asthma in primary care.** *Chest.* 2005; 128: 2099–2107
7. Colice, G.L., Shafazand, S., Griffin, J.P. et al. **Physiologic evaluation of the patient with lung cancer being considered for resectional surgery.** *Chest.* 2007; 132: 161S–17
8. Brunelli, A., Charloux, A., Bolliger, C.T. et al. **ERS/ESTS clinical guidelines on fitness for radical therapy in lung cancer patients (surgery and chemo-radiotherapy).** *Eur Resp J.* 2009; 34: 17–417S
9. Qiao, X., Tullgren, O., Lax, I. et al. **The role of radiotherapy in treatment of stage I non-small cell lung cancer.** *Lung Cancer.* 2003; 41: 1–11
10. Martin-Ucar, A.E., Fareed, K.R., Nakas, A. et al. **Is the initial feasibility of lobectomy for stage I non-small cell lung cancer in severe heterogeneous emphysema justified by long-term survival?.** *Thorax.* 2007; 62: 577–580
11. Lagerwaard, F.J., Haasbeek, C.J.A., Smit, E.F. et al. **Outcomes of risk-adapted fractionated stereotactic radiotherapy for Stage I non-small-cell lung cancer.** *Int J Radiat Oncol Biol Phys.* 2008; 70: 685–692
12. Fakiris, A.J., McGarry, R.C., Yiannoutsos, C.T., Papiez, L., Williams, M., Henderson, M.A., and Timmerman, R. **Stereotactic body radiation therapy for early-stage non-small-cell lung carcinoma: Four-year results of a prospective phase II study.** *Int J Radiat Oncol Biol Phys.* 2009; 75: 677–682
13. Hurkmans, C.W., Cuijpers, J.P., Lagerwaard, F.J. et al. **Recommendations for implementing stereotactic radiotherapy in peripheral stage IA non-small cell lung cancer: Report from the Quality Assurance Working Party of the randomised phase III ROSEL study.** *Radiat Oncol.* 2009; 4: 1
14. Clinical Toxicity Criteria for Adverse Events, version 3.0. https://webapps.ctep.nci.nih.gov/webobjs/ctc/webhelp/welcome_to_ctcae.htm.
15. Grills, I.S., Mangona, V.S., Welsh, R., Chmielewski, G., McInerney, E., Martin,S, Wloch, J., Ye, H., and Kestin, L.L. **Outcomes After Stereotactic Lung Radiotherapy or Wedge Resection for Stage I Non-Small-Cell Lung Cancer.** *J Clin Oncol.* 2010; 28: 928-935



SOURCES FOR INFORMATION
ON CANCER

American Cancer Society (ACS)
800-227-2345
www.cancer.org

American College of Surgeons (ACoS)
800-621-4111
www.facs.org

American Institute for Cancer Research (AICR)
800-843-8114
www.aicr.org

American Lung Association
www.lungassociation.org

Centers for Disease Control and Prevention (CDC)
www.cdc.gov

Commission on Cancer (CoC)
312-202-5009
www.facs.org/cancer

Florida Cancer Data System (FCDS)
305-243-4600
www.fcds.med.miami.edu

Florida Department of Health (FDH)
www.doh.state.fl.us

Leukemia & Lymphoma Society
800-955-4572
www.leukemia-lymphoma.org

National Cancer Institute (NCI)
800-4CANCER
www.cancer.gov

Susan G. Komen
800-468-9273
www.komen.org

GLOSSARY OF TERMS

Cancer Case – a single primary cancer; a patient diagnosed with more than one primary cancer will represent more than one case in a cancer registry database.

Chemotherapy – drugs that work directly on cancer cells to kill them or slow their growth.

Class of Case – categories of cases based on their relationship to the reporting facility; classes relevant to the CCCR are as follows:

- ***Analytic (classes 00-22)*** – diagnosed and/or received first-course, cancer-directed treatment at the reporting facility.
- ***Class 30*** – newly diagnosed cases but first diagnosis and all first-course treatment elsewhere, includes cases where further diagnostic workup, staging workup or treatment planning is performed at the reporting facility or any care provided while patient has newly diagnosed active disease; new category for 2010 cases. Several types of cases once considered analytic by the CoC were moved into class 30 and are no longer reported to NCDB. Class 30 cases are required to be reported to FCDS.
- ***Non-analytic (classes 31-37)*** – diagnosed and all first-course treatment provided elsewhere before patient presented with persistent or recurrent disease.

Collaborative Staging (CS) System – staging system developed by the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute (NCI). CS is based on extent of disease and AJCC cancer staging guidelines. CS differs from AJCC staging in that CS stages may mix clinical and pathological T, N, and M to arrive at a complete "best" stage. While AJCC staging applies strict guidelines for identifying homogeneous populations for research, CS staging is more similar to how clinicians stage when developing a treatment plan.

- ***T*** – defines extent, and sometimes the size, of the primary tumor.
- ***N*** – defines involvement of regional lymph nodes.
- ***M*** – defines contiguous or noncontiguous spread to distant site.

Stage grouping – based on the combination of T, N, M and sometimes other prognostic factors; represented by a concise group-stage code that indicates overall cancer extent and expected prognosis.

Hormone Therapy – drugs that work indirectly on hormone-sensitive cancer cells by modifying specific hormones in the body's hormone system.

Initial Therapy – first planned course of treatment designed to eliminate, control or palliate a patient's cancer. Initial therapy may also be active surveillance or a decision for comfort and support measures only.

Metastasis – cancer cells that have spread from the initial primary site to site(s) elsewhere in the body, usually by way of the lymphatic or circulatory system; may be regional or distant:

- ***Regional Metastases*** – cancer that has spread to tissues, lymph nodes or organs that are close to the primary site and are listed as regional in a standard staging system.
- ***Distant Metastases*** – cancer that has spread to tissues, lymph nodes or organs that are usually not in proximity to the primary site and are listed as distant in a standard staging system.

Reportable Tumor – tumor that meets criteria for reporting to the CoC and/or FCDS; most reportable tumors are malignant but benign central nervous system tumors were added to the list of reportable tumors beginning January 1, 2004. Chronic myeloproliferative disorders and myelodysplastic syndromes were added beginning January 1, 2001.

Thank you Dr. Schreiber for 36 years of devotion and care.

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