



WATSON CLINIC LLP Center for Cancer Care & Research

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COMMITTEE MEMBERS 12 The Center for Cancer Care & Research is pleased to present our 2013 annual report containing data from 2012-2013.

As we settle into on our tenth year in this community, the Center for Cancer Care & Research proudly features one of the region's largest and most experienced cancer-fighting teams. Treating each patient with compassion and attentiveness, we're dedicated to being the leader in establishing and maintaining the highest quality cancer research, treatment and recovery care in central Florida.

Watson Clinic's cancer center offers a team of cancer specialists from various disciplines, such as radiation, surgical and medical oncologists, surgeons and radiologists. These experts approach cancer care as a multi-disciplinary endeavor where they establish a true partnership in their fight against the disease, meeting regularly to discuss individual patient cases, and formulate the most comprehensive and well-considered plan of treatment possible. Watson Clinic's extended team of more than 200 specialists is frequently called upon to supplement care when needed as well, in areas as diverse as urology and plastic surgery.

Our accredited cancer center strives to remain on the cutting-edge of cancer imaging and treatment technologies, and in many cases we are the first facility to introduce them to our area. These technologies include the area's only high definition CT scanner, breast tomosynthesis (also known as 3D mammography), Intensity Modulated Radiation Therapy (IMRT) which will improve cure rates while reducing side effects, and high dose rate (HDR) brachytherapy which administers high intensity irradiation directly into a cancer target over a few minutes with high success.

Cancer Can & Research

> We're proud to be Polk County's only affiliate of the renowned Moffitt Cancer Center. In concert with the efforts of the Watson Clinic Center for Research, this affiliation offers access to the latest clinical trials, treatment protocols and state-of-the-art technologies. In addition, the Center for Cancer Care & Research is one of a select group of freestanding cancer centers in the entire nation to be accredited by the American College of Surgeons Commission on Cancer.

> These honors confirm our tireless commitment to providing the best for our patients, including world-class treatments, compassionate and comprehensive care, and the most indepth resources available.



### WE'RE DEDICATED TO A FUTURE WITHOUT CANCER - ONE PATIENT AT A TIME -

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**GLOSSARY** 

*SSAJE* FROM FRED J. SCHREIBER, M.D.

As evidenced by the contents of this report, the Center for Cancer Care & Research (CCCR) has accomplished much since we first opened our doors in 2003. In our quest to redefine quality cancer care in our area, our specialists have created a safe haven that provides hope for patients and families throughout our community.

Earlier this year, we celebrated our 10<sup>th</sup> anniversary by hosting an inspiring celebration of survivorship. In attendance were many of the friends we have made over the years while assisting them on their road to recovery. It was during this event that we unveiled our cancer center's new survivor bell, which each of our patients has the opportunity to ring at the completion of their treatment, symbolizing a triumphant milestone in their journey to cancer survivorship. Today, we display two bells for patients at CCCR: one in radiation therapy and the other in chemotherapy.



Ring this bell Three times well A toll to clearly say My treatment is done This course is run And I am on my way



At CCCR, guiding each patient to the moment where they can ring that bell lies at the heart of everything we do. The quality of our specialists, complemented by Watson Clinic's board-certified physicians, ensures that our patients have an arsenal of medical expertise in their corner every step of the way, including anesthesiologists, breast surgeons, cardiologists, critical care intensivists, dermatologists/dermatopathologists, facial plastic surgeons, family practitioners, gastroenterologists, general surgeons, gynecologists, hospitalists, internal medicine physicians, nephrologists, neurologists, nutritionists, obstetricians, oncologists, ophthalmologists, orthopedists, otolaryngologists, pain management physicians, pathologists, plastic surgeons, psychiatrists, pulmonologists, radiation oncologists, radiologists, surgical oncologists, thoracic surgeons, urologists and many more.

Our status as the only local affiliate of Moffitt Cancer Center also proves to be of enormous benefit to our patients, as do the national clinical trials we offer (in conjunction with the Watson Clinic Center for Research), as well as our comprehensive follow-up care.

On the technology front, we've invested in the world's first high definition CT scanner, a system that results in greater image clarity, a faster imaging process, and up to a 50% reduction in radiation exposure for patients. Watson Clinic's Center for Cancer Care & Research is the only facility in the area to offer this groundbreaking technology. Meanwhile, we utilize the patientfriendly, non-invasive radiotherapy treatment "AccuBoost" for breast cancer treatments whenever possible from our newly-designed beautiful and calming brachytherapy suite.

Our efforts across every facet of our operations – from treatment to counseling to community outreach – are all in the service of creating a more compassionate, efficient and complete cancer care experience. Whatever the challenges faced by the healthcare industry in the days ahead, we'll be at the ready to foster the next generation of survivors.

Fred J. Schreiber, MD

Hematologist/Oncologist Cancer Committee Chair





The number of cancer survivors has jumped from just 3 million in the early 1970's to nearly 14 million today. These figures indicate tremendous forward progress, but we must address potentially significant stumbling blocks if we

*ESSAJE* FROM LUIS A. FRANCO, M.D.

Research funding cuts at the federal level are threatening our country's progress and our leadership role in the field. In fact, half of the research studies posted in our medical journals over the past five years have come from scientists in other countries. At our own cancer center, we're witnessing a fade



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wish for that trend to continue.

in the number of studies that we can make available to our patients. Our long-standing collaboration with Moffitt Cancer Center assists us in correcting that deficiency, as has our new affiliation with US Oncology, which will make available a greater number of research protocols for our patients.

As survivorship increases, so does the demand for economic

and psychological support; therefore, enhancing the need for social service staff, and additional protocols to assist our patients with these issues. Our efforts to make these protocols available to our patients are amongst our greatest accomplishments.

We're aware that our efforts are empowered by our accreditation by the American College of Surgeons Commission on Cancer. Our third reaccreditation from this prestigious organization was achieved, a distinction made even more meaningful by our having achieved the highest possible number of commendations given to a cancer center.

In an attempt to self-evaluate our own performance, we compared our results to those achieved by five major cancer centers in the state of Florida.



currently making these comparisons in our treatment of breast cancer with Accelerated Partial Breast Irradiation, which will lead us to observations regarding the value of the procedure in relation to side effects and any long term toxicities.

### Luis a. Franco, MD

Hematologist/Oncologist Cancer Liaison Physician



In the area of esophageal cancer, we've accomplished excellent survival rates for Stage III and IV patients when compared to these other institutions. We're



# utreach AND EVENTS

Anything is possible when we move forward together! Patients trust Watson Clinic and the Center for Cancer Care & Research (CCCR) to perform their best work and focus on delivering their mission. The Community trusts us because they have witnessed a long, rich history of receiving endless support from physicians, staff and leadership. Together, backed by a decade of collaborating and working together to help eradicate cancer, we continue to lead in making a difference for those we serve. The same values that hold true in our care of patients exists in our care of the community.

#### Here are several examples of how we share our resources and have a direct and positive impact in your local community:

- Standing alongside one of the country's foremost organizations also committed to the elimination of cancer, the American Cancer Society, we participate in signature fundraisers such as the Cattle Baron's Ball, Relay for Life and Making Strides. We believe strongly in cancer control and participate in speaking engagements to carry forward the need for continuing education as it relates to community members understanding the latest treatments, technologies and research available to them.
- We actively participate in and host one of the area's largest skin cancer screening and prevention programs held each year on the Watson Clinic campus. Community members come from all over to benefit from this free screening and to learn more about skin cancer prevention.
- Our physicians are amongst the leaders in our community who avail themselves for speaking opportunities throughout the area. By offering a free speaker's bureau, we stand prepared to inform and educate our community on various topics related to this disease.
- We actively participate in the county's 'Building A Healthier Polk' initiative, hosted by Polk Vision, which allows all of us to develop a common purpose and improve the quality of life in our community with special emphasis to combat obesity as a health issue tied directly to cancer.

- We continue our endorsement and involvement in area fundraisers that support important cancer programs throughout our community, such as the Susan G. Komen's Polk Race for the Cure; Watson Clinic Foundation's Annual Health Conferences where colon cancer, breast cancer and other cancers are always part of the dialogue and presentations.
- We host a monthly series on Smoking Cessation to help our patients understand the options available to them as they consider the impact of smoking and it's direct link to cancer. We will be introducing a full eightweek Smoking Cessation program in 2014 to take the support to the next level by assisting patients in their desire to guit for good.
- Working in partnership with the Watson Clinic Foundation and the Watson Clinic Foundation Auxiliary, we raise much needed funds to help continue the necessary research to find cures and implement patient trials by hosting the annual Toast To Find A Cure, a wine and cheese social where physicians provide insightful updates to the field of cancer and critical funds are raised to help move the fight forward.
- Watson Clinic served as one of the area's host sites for the American Cancer Society's Cancer Prevention Study (CPS-3), a long-term project that should result in potentially game-changing breakthroughs in cancer research and treatment. Through the commitment of our team and support of our community, Watson Clinic successfully enlisted nearly 200 participants in the study, which had over 300,000 participants nationwide and served to exceed county, state and national goals.

We have a concrete impact in Polk County and beyond. We seize the opportunities to be engaged and, when people in this community turn their eyes to us in their moment of need, we are able to deliver. Watson Clinic understands we serve a true community and you will always find us at the helm, leading the charge in the battle against cancer.







## NCOLOGU SOCIAL SERVICES

At the Center for Cancer Care & Research, our oncology social workers are trained to assist with the psychosocial impact of a cancer diagnosis. An oncology social worker understands that cancer affects each person differently and has an effect on the entire family.



Patients may face complex emotions or feelings of sadness, depression, or anxiety. All new cancer patients to Watson Clinic's Center for Cancer Care



& Research are screened for distress at their initial visit with the medical oncologist or radiation oncologist. Social workers can provide emotional support, help the patient access available resources, and assist the patient and family with other practical needs and referrals as they transition through all phases of their cancer experience.





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 endorphin and natural cancer-fighting cell levels, while 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.

## IN MEDICINE





#### **Cancer Committee Physician Members:**

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

#### **Physician-Associate Members:**

Dr. Richard Cardosi, *Gyenecologic Oncology* Dr. Jens Carlsen, *Urology* Dr. Randy Heysek, *Radiation Oncology* Dr. Scott Kelley, *Surgery* Dr. Rakesh Patel, *Urology* 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, Administrative Research, Clinical Research Tracey Mensing, RN, BSN, OCN, Chemotherapy/Oncology Nursing, Oncology Nurse Navigator, Quality Improvement



#### **Non-Physician Members:**

Shannon Barlow, MS, DABR, *Radiation Oncology* Mary Ann Blanchard, RN, BS, *Director, Clinical Services* Rob Breakiron, *American Cancer Society Area Patient Representative* Sheila Coile, RN, OCN, *Oncology Nursing* Pam Herbert, RN, OCN, *Oncology Practice Coordinator* Jerri Huntt, MSW, LCSW, *Social Services* Adil Khan, MHA, *Chief Administrative Officer* Ann Lehman, BSW, *Social Services* Zejian Liu, PhD, MS, DABR, *Radiation Oncology* Carol Martin, RN, *Women's Center Clinical Services Coordinator* Kim Starling, BHM, *Site Manager* Patty Strickland, *Community Outreach Manager* Jennifer Snider, CTR, *Cancer Program Coordinator* Linda Wolf, RN, *Director, Clinical Services* 

#### **Cancer Registry Members:**

Paula Buck, CTR, *Abstractor* Valerie Fisher, *Follow-Up Data Specialist* Helen Lewis, BS, CTR, *Lead Abstractor/Quality Coordinator* Blanche Myers, RHIT, CTR, CPC, *Abstractor PRN* Aprill Rease, CTR, *Abstractor* Angie Simmons, BS, CTR, *Abstractor* Jennifer Snider, CTR, *Cancer Program Coordinator* 



## COMMITTEE **R E P O R T**

Our oncology nurses are highly skilled and passionate about the field of cancer nursing. Their objective is to provide a positive experience for the patient and their family before, during and after cancer treatment. Our nurses combine their scientific knowledge, technical skills, and caring to help people live with cancer, and assist families throughout the 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 drugs, care of the cancer patient including side effect management, and other specific issues related to oncology. Currently 75% of our chemotherapy nurses are Oncology Certified Nurses (OCN). Our nurses received a commendation this year during our CoC survey because of this. The CoC requires only 25% of the nurses to be OCN certified. This certification validates an individual's specialized knowledge in cancer nursing. According to the ONCC, patients value expertise. This certification can help patients feel confident about their caregivers. To patients with cancer and their families, certification means the nurse is a qualified caregiver. 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. Competency of all of our medical staff is of the utmost importance. We have annual evacuation drills 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 six-member nurse committee consisting of chemotherapy nurses, radiation therapy nurses, a nurse navigator and managers. This group meets monthly to monitor, evaluate, and improve current processes, thus increasing the safety and quality of patient care.

#### Accomplishments this year

• Improving the quality of chemotherapy education classes. "Conquering Chemo" is a class designed to empower patients and their families with the most up-todate information on chemotherapy and side-effect management. We now offer this class three times a week, which includes a tour of our facility and orientation to the cancer center and the journey to become a survivor

- Placement of a bell in the chemotherapy treatment room. This was part of our 10<sup>th</sup> anniversary celebration and included a dedication ceremony attended by doctors, nurses, ancillary staff, clinic administration, patients and family members. The bell currently resides in the room where patients receive their chemotherapy medications and has been a great success. It allows patients to celebrate after their last chemotherapy treatment, and gives other patients and family members the opportunity to participate as well. It has been a great motivator and has truly touched the entire department. In fact, our chemotherapy patients loved it so much, we added a second bell in the radiation therapy department to celebrate the end of radiation therapy treatments as well.
- Continuous improvement of interdepartmental collaboration. Our nurse committee has involved multiple departments, all coming together on a monthly basis to present ideas, problem solve, and evaluate current policies and procedures. This insures that our facility maintains communication between departments to provide the best possible patient care.
- Facilitation of guality assurance measures. One of the goals of the nurse committee is to develop a variety of initiatives to ensure that patients receive quality care at our facility. The committee gains input from staff on potential improvements and they discuss ways to put these improvements into practice.
- Patient navigation. Our facility has a nurse navigator who works specifically to improve patient access to healthcare by eliminating barriers to care. She works to develop a multi-step process that follows a new patient from chemotherapy education class until the patient has been scheduled for their first chemotherapy treatment. The nurse navigator also organizes appointments when necessary, assists patients in getting medications before the first treatment, and refers to other services when necessary.
- Community involvement. Our commitment to the community is evident in our pledge to increase awareness about cancer prevention by providing education to the local community. Our staff attends multiple health fairs, providing education and literature on various oncology-related topics.
- Providing oncology nursing education. There are many opportunities within our cancer program where our nurses can earn continuing education credits. These educational sessions increase their knowledge specific to the field of oncology and keep our nurses up-to-date on the latest advances in cancer care.







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 research 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 technologies. 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 1,900 new patient referrals annually with 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 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. The investigators are seeking to provide innovative and evidence based treatments that enhance standard of care options for their patients.

All patients at the Center for Cancer Care & Research, when appropriate for a trial, are encouraged to participate in a clinical treatment trial and/or tissue procurement trial. The mission of conducting research is an integral part of our practice.



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, which 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, 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 2012

Total # of Cancer Conferences Total # of Cases Presented (71% of Analytic Ca Total # of Cases Presented Prospectively (99% Total # of Cancer Related Educational Activities

#### YTD July 31, 2013

Total # of Cancer Conferences ..... Total # of Cases Presented (67% of Analytic Ca Total # of Cases Presented Prospectively (98% Total # of Cancer Related Educational Activities







	92
aseload)	.780
of Cases Presented)	769
S	32

	72
aseload)	
of Cases Presented)	588
S	15





#### 2013 CANCER REGISTRY ACTIVITY REPORT ON 2012 DATA COLLECTION

Over the years, cancer care has been impacted by these accomplishments:

- 1922 Establishment of the Commission on Cancer (CoC) as formed by the American College of Surgeons (ACoS)
- 1926 Creation of the first Cancer Registry program at Yale-New Haven Hospital in Connecticut
- 1971 Signing of the National Cancer Act into law by President Richard Nixon
- 1973 Launching of the Surveillance, Epidemiology and End Results (SEER) Program established by the National Cancer Institute (NCI)
- 1992 Beginning of a National Program of Cancer Registries (NPCR) as Congress approves Public Law 102-515

In 2013, the National Cancer Registrars Association celebrated 30 years of service with more than 7,000 individuals having earned their Certified Tumor Registrar (CTR) credentials.

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.

The Center for Cancer Care & Research (CCCR) is a freestanding cancer program that has been accredited by the Commission on Cancer (CoC) since 2007, with re-accreditation in May 2013, meeting all eight commendations for gold accreditation, with three of the eight commendations held by the Cancer Registry; submitting error free data to the National Cancer Data Base (NCDB) annually, abstracting timeliness 95% or higher, and maintaining a high level of continuing education for all registry staff.

Our cancer center's data is reported to our state registry, the Florida Cancer Data Systems (FCDS) and to the National Cancer Data Base (NCDB), a joint program of the ACoS and the American Cancer Society. It is a nationwide oncology outcomes database for more than 1,500 Commission accredited cancer programs. As well as maintaining CCCR data, the Cancer Registry collects and maintains data collection for Watson Clinic (WC) and Clark & Daughtrey Medical Group (C&D).

The 2012 data reflects 3048 cases accessioned into the registry database. Of these cases, 641 were analytic and 475 were non-analytic for CCCR, 1750 for WC and 182 C&D.

Analytic is defined as newly diagnosed cases diagnosed and /or receiving first course treatment at the reporting facility. The CoC created a new non-analytic



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 2012 accessioned cases for CCCR (analytic/non-analytic)
- List of total 2012 accessioned cases for WC and C&D represented in separate tables
- Five most frequent CCCR cancer sites
- Five most frequent female CCCR cancer sites
- Five most frequent male CCCR cancer sites







class 30 for some newly diagnosed cancer cases. Please see glossary of terms for more detailed definition of class 30 (page 36).

All other non-analytic cases were diagnosed and received all first course treatment elsewhere.

- Five most frequent CCCR cancer sites compared to Florida and national incidence
- Age at diagnosis
- Stage at diagnosis for all CCCR cancer sites combined
- County of residence at time of diagnosis



### Table 1: Total 2012 Cases for CCCR

PRIMARY SITE	CASES	MALE	FEMALE	ANALYTIC	ANALYTIC PLUS*	NON- ANALYTIC	
ALL SITES	1116	508	608	641	836	280	
TONGUE	9	7	2	7	7	2	
PHARYNX	3	2	1	3	3	0	
OTHER ORAL CAVITY	17	12	5	14	16	1	
ESOPHAGUS	10	8	2	7	8	2	
STOMACH	18	14	4	8	14	4	
COLON	48	26	22	16	34	14	
RECTUM	18	8	10	6	16	2	
ANUS/ANAL CANAL	5	2	3	2	3	2	
LIVER	8	5	3	3	7	1	
PANCREAS	26	14	12	18	21	5	
OTHER DIGESTIVE	5	3	2	1	4	1	
LARYNX	12	8	4	8	8	4	
LUNG/BRONCHUS	147	72	75	94	126	21	
OTHER RESPIRATORY	1	1	0	1	1	0	
LEUKEMIA	35	15	20	22	25	10	
MULTIPLE MYELOMA	11	5	6	7	7	4	
OTHER BLOOD & BONE MARROW	17	9	8	11	12	5	
BONE	3	0	3	0	0	3	
CONNECT/SOFT TISSUE	2	1	1	1	1	1	
MELANOMA	86	50	36	19	39	47	
OTHER SKIN	3	2	1	1	2	1	
BREAST	268	2	266	209	227	41	
CERVIX UTERI	12	0	12	6	7	5	
CORPUS UTERI	26	0	26	15	18	8	
OVARY	18	0	18	18	18	0	
PRIMARY PERITONEAL	4	0	4	4	4	0	
VULVA	1	0	1	0	0	1	
OTHER FEMALE GENITAL	4	0	4	4	4	0	
PROSTATE	155	155	0	65	101	54	
TESTIS	6	6	0	2	4	2	
OTHER MALE GENITAL	1	1	0	0	0	1	
BLADDER	19	15	4	10	12	7	
KIDNEY/RENAL	18	11	7	4	8	10	
OTHER URINARY	1	1	0	0	0	1	
BRAIN (BENIGN)	0	0	0	0	0	0	
BRAIN (MALIGNANT)	11	5	6	8	9	2	
OTHER CNS	1	0	1	0	0	1	
THYROID	12	5	7	0	5	7	
OTHER ENDOCRINE	0	0	0	0	0	0	
HODGKIN LYMPHOMA	4	2	2	3	4	0	
NON-HODGKIN LYMPHOMA	56	33	23	34	48	8	
UNKNOWN PRIMARY	12	6	6	9	12	0	
OTHER/ILL-DEFINED	3	2	1	1	1	2	

### Table 2: Total 2012 Cases for Watson Clinic LLP

PRIMARY SITE	CASES	MALE	FEMALE	ANALYTIC	ANALYTIC PLUS*	NON- ANALYTIC
ALL SITES	1750	781	969	940	1427	323
TONGUE	14	8	6	7	13	1
PHARYNX	3	2	1	3	3	0
OTHER ORAL CAVITY	16	12	4	6	16	0
ESOPHAGUS	13	11	2	1	13	0
STOMACH	20	12	8	0	16	4
COLON	56	31	25	5	36	20
RECTUM	25	13	12	1	22	3
ANUS/ANAL CANAL	4	2	2	1	3	1
LIVER	7	6	1	1	6	1
PANCREAS	23	15	8	4	18	5
OTHER DIGESTIVE	5	2	3	1	5	0
LARYNX	10	6	4	2	8	2
LUNG/BRONCHUS	152	68	84	51	129	23
OTHER RESPIRATORY	0	0	0	0	0	0
LEUKEMIA	35	18	17	9	19	16
MULTIPLE MYELOMA	11	5	6	2	6	5
OTHER BLOOD & BONE MARROW	11	4	7	2	6	5
BONE	4	1	3	0	1	3
CONNECT/SOFT TISSUE	4	2	2	0	1	3
MELANOMA	477	250	227	415	425	52
OTHER SKIN	6	4	2	6	6	0
BREAST	298	1	297	171	246	52
CERVIX UTERI	19	0	19	7	15	4
CORPUS UTERI	69	0	69	18	62	7
OVARY	27	0	27	11	26	1
PRIMARY PERITONEAL	3	0	3	0	3	0
VULVA	12	0	12	4	11	1
OTHER FEMALE GENITAL	8	0	8	3	8	0
PROSTATE	177	177	0	103	123	54
TESTIS	10	10	0	3	8	2
OTHER MALE GENITAL	2	2	0	2	2	0
BLADDER	46	34	12	25	36	10
KIDNEY/RENAL	28	14	14	7	19	9
OTHER URINARY	4	1	3	1	3	1
BRAIN (BENIGN)	3	2	1	1	1	2
BRAIN (MALIGNANT)	10	3	7	3	9	1
OTHER CNS	21	8	13	12	14	7
THYROID	26	11	15	14	20	6
OTHER ENDOCRINE	20	6	14	12	14	6
HODGKIN LYMPHOMA	2	1	1	0	1	1
NON-HODGKIN LYMPHOMA	52	30	22	17	39	13
UNKNOWN PRIMARY	13	8	5	8	13	0
OTHER/ILL-DEFINED	4	1	3	1	2	2

\* Total newly diagnosed cases; includes analytic plus class 30 per Commission on Cancer definitions

\* Total newly diagnosed cases; includes analytic plus class 30 per Commission on Cancer definitions



### Table 3: Total 2012 Cases for Clark & Daughtrey Medical Group, P.A.

PRIMARY SITE	CASES	MALE	FEMALE	ANALYTIC	ANALYTIC PLUS*	NON- ANALYTIC
	400					
ALL SITES	182	96	86	56	138	44
TONGUE	1	1	0	1	1	0
PHARYNX OTHER ORAL CAVITY	0	0	0	0	0	0
ESOPHAGUS	3	2	1	0	2	1
STOMACH	2	1	1	0	2	0
COLON	13	1	1	1	2	0
RECTUM			6 0	0	11 1	2
ANUS/ANAL CANAL	1	1	0	0	0	0
LIVER	1	0	1	0	0	1
PANCREAS	4	1	3	1	4	0
OTHER DIGESTIVE	0	0	0	0	0	0
LARYNX	3	2	1	1	3	0
LUNG/BRONCHUS	32	16	16	5	29	3
OTHER RESPIRATORY	0	0	0	0	0	0
LEUKEMIA	5	1	4	2	4	1
MULTIPLE MYELOMA	2	2	0	0	0	2
OTHER BLOOD & BONE MARROW	2	1	1	1	2	ō
BONE	0	Ó	0	0	0	Ő
CONNECT/SOFT TISSUE	õ	0	0	Ő	Ő	õ
MELANOMA	10	3	7	Ő	4	6
OTHER SKIN	0	0	0	0	0	0
BREAST	26	1	25	4	21	5
CERVIX UTERI	2	0	2	0	0	2
CORPUS UTERI	3	0	3	2	2	1
OVARY	0	0	0	0	0	0
PRIMARY PERITONEAL	0	0	0	0	0	0
VULVA	3	0	3	3	3	0
OTHER FEMALE GENITAL	0	0	0	0	0	0
PROSTATE	39	39	0	26	28	11
TESTIS	0	0	0	0	0	0
OTHER MALE GENITAL	0	0	0	0	0	0
BLADDER	7	7	0	5	5	2
KIDNEY/RENAL	4	4	0	1	3	1
OTHER URINARY	1	0	1	1	1	0
BRAIN (BENIGN)	0	0	0	0	0	0
BRAIN (MALIGNANT)	0	0	0	0	0	0
OTHER CNS	1	0	1	1	1	0
THYROID	3	1	2	0	1	2
OTHER ENDOCRINE	1	0	1	0	0	1
HODGKIN LYMPHOMA	3	2	1	0	2	1
NON-HODGKIN LYMPHOMA	7	3	4	1	5	2
UNKNOWN PRIMARY	1	0	1	0	1	0
OTHER/ILL-DEFINED	0	0	0	0	0	0

\* Total newly diagnosed cases; includes analytic plus class 30 per Commission on Cancer definitions

### Table 4: Newly Diagnosed 2012 Cases for Center for Cancer Care & Research

PRIMARY SITE	CLASS	3	GE	NDER		TN	м эт	AGE	AT D	IAGNOS	IS
	Analytic Plus*	Analytic	Male	Female	0	Т	Ш	III	IV	UNK**	N/A***
ALL SITES	836	641	358	478	39	222	210	125	142	19	79
ORAL CAVITY	26	24	20	6	0	3	2	2	19	0	0
TONGUE	7	7	7	0	0	1	0	1	5	0	0
PHARYNX	3	3	2	1	0	0	0	0	3	0	0
OTHER	16	14	11	5	0	2	2	1	11	0	0
DIGESTIVE SYSTEM	107	61	62	45	3	19	30	22	26	1	6
ESOPHAGUS	8	7	7	1	0	0	4	1	3	0	õ
STOMACH	14	8	10	4	Ō	2	4	2	4	1	1
COLON	34	16	18	16	2	5	12	5	9	0	1
RECTUM	16	6	7	9	0	6	3	4	1	0	2
ANUS/ANAL CANAL	3	2	1	2	0	1	1	1	0	0	0
LIVER	7	3	5	2	0	2	1	1	3	0	0
PANCREAS	21	18	12	9	1	2	5	7	6	0	0
OTHER	4	1	2	2	0	1	0	1	0	0	2
RESPIRATORY SYSTEM	135	103	65	70	1	30	11	42	49	1	1
LARYNX	8	8	4	4	1	2	0	3	2	0	0
LUNG/BRONCHUS	126	94	60	66	0	28	11	39	47	1	0
OTHER	1	1	1	0	0	0	0	0	0	0	1
BLOOD & BONE MARROW	44	40	20	24	0	0	0	0	0	0	44
LEUKEMIA	25	22	12	13	0	0	0	0	0	0	25
MULTIPLE MYELOMA	7	7	3	4	0	0	0	0	0	0	7
OTHER	12	11	5	7	0	0	0	0	0	0	12
BONE	0	0	0	0	0	0	0	0	0	0	0
CONNECT/SOFT TISSUE	1	1	1	0	0	0	0	0	0	1	0
CONNECT/SOFT TISSUE	1	1	1	U	U	U	U	U	U	1	U
SKIN	41	20	26	15	3	28	6	2	2	0	0
MELANOMA	39	19	24	15	3	27	6	1	2	0	0
OTHER	2	1	2	0	0	1	0	1	0	0	0
BREAST	227	209	2	225	30	106	59	17	13	1	1
FEMALE GENITAL	51	47	0	51	0	19	3	15	10	1	3
CERVIX UTERI	7	6	0	7	0	2	2	2	1	0	0
CORPUS UTERI	18	15	0	18	0	10	1	3	3	1	0
OVARY	18	18	0	18	0	6	0	7	4	0	1
PRIMARY PERITONEAL	4 0	4 0	0 0	4 0	0	0	0 0	2 0	2 0	0	0
OTHER	4	4	0	4	0	1	õ	1	õ	ő	2
	•		-	•	-		-			-	_
MALE GENITAL	105	67	105	0	0	2	84	5	5	9	0
PROSTATE TESTIS	101 4	65 2	101 4	0	0	1	83 1	4	5 0	8 1	0
OTHER	4	0	4	0	0	o	o	0	o	o	0
			-		-	-	_	-		_	-
URINARY SYSTEM	20	14	13	7	2	2	5	7	3	1	0
BLADDER	12	10	8	4	1	1	5	4	1	0	0
KIDNEY/RENAL	8	4	5 0	3 0	1 0	1 0	0 0	3 0	2 0	1 0	0
OTHER	0	0			-	-	-	-	-	-	-
BRAIN & CNS	9	8	4	5	0	0	0	0	0	0	9
BRAIN (BENIGN)	0	0	0	0	0	0	0	0	0	0	0
BRAIN (MALIGNANT)	9 0	8	4	5 0	0	0	0	0	0	0	9
OTHER	-	0	0	0	0	0	0	0	0	0	0
ENDOCRINE SYSTEM	5	0	4	1	0	2	0	3	0	0	0
THYROID	5	0	4	1	0	2	0	3	0	0	0
OTHER	0	0	0	0	0	0	0	0	0	0	0
LYMPHATIC SYSTEM	52	37	29	23	0	10	10	12	17	3	0
HODGKIN LYMPHOMA	4	3	2	2	0	0	2	0	2	0	0
	48	34	27	21	0	10	8	12	15	3	0
NON-HODGKIN LYMPHOMA	40	04			-						
Non-Hodgkin Lymphoma Unknown Primary	12	9	6	6	0	0	0	0	0	0	12

\* 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



#### **Five Most Frequent Cancer Sites in 2012**

The five most frequent cancer sites of newly diagnosed cases seen at CCCR in 2012 were breast (27%), lung (15%), prostate (12%), colorectal (6%) and non-Hodgkin lymphoma (6%). These were the same most frequent cancer sites as in 2011. These five sites accounted for two-thirds (66%) of the newly diagnosed cases seen at CCCR last year. Approximately 75% of all CCCR cases in 2012 were newly diagnosed at the time of their first visit.

Ovarian cancer and cancer occurring in the body of the uterus were equally the fifth most frequent female cancers, both only slightly less frequent than non-Hodgkin lymphoma. Almost half (47%) of female cancers seen at CCCR in 2012 were breast cancer. Non-Hodgkin lymphoma and colorectal cancer exchanged order of frequency in male cancers when compared to last year. In 2012 non-Hodgkin lymphoma (8%) was seen slightly more often than colorectal cancer (7%).

#### **Distribution of 2012 CCCR Case**



**Distribution of 2012 CCCR Female Cases** 



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**CCCR Male Cases** PROSTATE 28% COMBINED OTHER 34% UNG/BRONCHU 17% MELANOMA COLORECTAL NON-HODGKIN 7% LYMPHOMA 8%

**Distribution of 2012** 

Note: Total more than 100% due to rounding

#### **CCCR 2012 Frequency Compared to Incidence**

Incidence attempts to represents all newly diagnosed cancer cases within a geographic area, for example a state or a country. Facilities can only count frequency, the number of cancer cases that come to the facility. The following graph compares frequency of the top five CCCR cancer sites to Florida and the United States incidence for the same sites. Our top five sites are not necessarily the same top sites for the state or the country. The comparison shows we see approximately twice as much breast cancer and 50% more non-Hodgkin lymphoma as state and national incidence would indicate.



Sources of U.S. & Florida data: Cancer Facts & Figures 2012, American Cancer Society



#### Age at Diagnosis by Gender of CCCR 2012 Cases

Of the 836 newly diagnosed 2012 CCCR cases, 358 (43%) were male and 478 (57%) were female. Over half (62%) were age 65 or older, approximately the same as the past two years. Of the male patients, 240 (67%) were age 65 or older. Of the female patients, 279 (58%) were 65 or older. The average age of male patients was 68; average age of female patients was 66; and average age for all newly diagnosed patients was 67. All three averages were the same as the previous year.



#### CCCR 2012 Stage at Diagnosis Compared to NCDB

The NCDB includes only analytic cancer cases as defined by the CoC and reported by accredited cancer programs nation-wide. Consequently only CCCR analytic cases—using the same CoC definition—were used for this comparison of stage at diagnosis. The most recent data year available from NCDB was 2011 (707,264 cases), which was compared to 2012 CCCR (641 cases). Of the CCCR cases, 57% were early stage (stages 0, I & II), an improvement over the 48% that were early stage in 2011. NCDB early stage was 65% also an improvement over 55% early stage in 2010. Later stages (stages III & IV) accounted for 32% of CCCR cases, also an improvement over 2011 (39%) and similar to the 30% late stage of NCDB cases. Interestingly, CCCR saw significantly more cases for which there were no staging schemes: 9% for CCCR and 4% for NCDB. This may be a result of the CCCR being an outpatient cancer center which sees more hematopoietic (blood and bone marrow) malignancies than most programs that report cases to NCDB. NCDB cases are almost all hospital cases.



Source of NCDB data: 2013 National Cancer Data Base Benchmark Reports

#### County of Residence at Diagnosis of CCCR 2012 Cases

The residential sources of CCCR newly diagnosed patients in 2012 changed a little from the previous year. The majority of patients (86%) resided in Polk County at the time of their diagnosis about the same as in 2011. Highlands County saw the biggest change with 1% of cases in 2012 compared to 7% of cases in 2011. However Hillsborough, Hardee and counties outside our region saw an increase in patients coming to CCCR for cancer care.



Note: Total less than 100% due to rounding



### Evaluation of Multi-Specialty Work-up, Treatment & Outcomes of Esophageal Cancer Treated in 2010-2012

Edward Kerr, Research Student, Southern Methodist University Luis Franco, MD; Watson Clinic LLP; Center for Cancer Care & Research

#### Background

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The American Cancer Society estimates 17,990 new diagnoses and 15,210 deaths from esophageal cancer occurred in the United States in 2013 (Cancer Facts & Figures—2013). Esophageal cancer is diagnosed much more frequently in men than it is in women. Of the new diagnoses, 14,440 were men compared to 3,550 women. Esophageal cancer is the 7<sup>th</sup> leading cause of cancer deaths in men. It is estimated 12,220 men and 2,990 women died of esophageal cancer in 2013.

Esophageal cancers are histologically classified primarily as squamous cell carcinoma (SCC) or adenocarcinoma. Adenocarcinoma of the esophagus may be associated with a better long-term prognosis after resection than SCC. Both SCC and adenocarcinoma are more common in men. Previously, the majority of esophageal cancers were SCC, but it has become increasingly less common and now accounts for less than 30% of all esophageal malignancies. Adenocarcinoma is diagnosed predominantly in white men among whom the incidence has risen more steeply. However, adenocarcinoma is gradually increasing in men of all ethnic backgrounds and also in women. Tobacco and alcohol abuse are major risk factors for SCC whereas the use of tobacco is a moderate established risk factor for adenocarcinoma. Obesity and high body mass index (BMI) have been established as strong risk factors for adenocarcinoma of the esophagus.

This retrospective study attempts to provide a window into how esophageal cancer is evaluated and treated at Watson Clinic. Esophageal cancer is an aggressive cancer requiring a multi-disciplinary approach. The National Cancer Comprehensive Network (NCCN) has established national, evidence-based guidelines for the purpose of promoting quality care and treatment of most cancers, including esophageal cancer. This study assesses the pre-treatment and treatment patterns of Watson Clinic physicians relative to NCCN guidelines with comparisons to data in the National Cancer Data Base (NCDB) from the five major teaching and research cancer centers in the state of Florida.

#### Methodology

The study population consisted of newly diagnosed esophageal cancer cases seen at Watson Clinic or the Center for Cancer Care & Research. While some patients had their cancer work-up and possibly some treatment elsewhere, all cases included in the study had at least a portion of their first-course therapy performed by Watson Clinic physicians during years 2010-2012. A total of 50 cases met study criteria.

The NCDB population of 275 cases used for demographic and treatment comparisons consisted of newly diagnosed esophageal cancer patients seen at the five Florida teaching and research hospitals in 2010, the most recent year for which NCDB data were available. Larger NCDB populations were used in survival comparisons. NCCN guidelines recommend a number of pre-treatment tests for making accurate diagnoses, staging and treatment decisions. The pre-treatment tests evaluated in the study included PET scan, CT scan, endoscopy, biopsy, and endoscopic ultrasound (EUS).

#### Findings:

Of the total 50 study patients, 37 (74%) were male and 13 (26%) were female. This was similar to NCDB and also consistent with national incidence which found that three times as many men are diagnosed with esophageal cancer as women.

### **Demographics - Gender**



The age distribution of the study patients was also similar to NCDB.

Age Distribution Comparison 40% WC (50) NCDB (275) 30% Percent 20% 19% 16% 13% 10% 0% 0% 40-49 50-59 60-69 70-79 80-89 90+ 0-39 Age Group

**Demographics - Age** 

Above average BMI is known to be a risk factor for esophageal cancer. Note below that average BMI in 46 of the study patients increased as stage increased. BMI was unknown for 4 of the study patients. Average BMI was 28.18 among patients diagnosed with adenocarcinoma. Patients diagnosed with SCC had a lower average BMI of 24.24.

#### **Demographics - BMI**



Higher BMI is also associated with Barrett's esophagus, another risk factor for adenocarcinoma of the esophagus. As seen below, adenocarcinoma was a more common histology among both the study patients and the NCDB patients.





Source of NCBD Data: National Cancer Data Base Benchmark Reports

As expected, Barrett's Esophagus was much more common with adenocarcinoma than with SCC. Of the 50 study patients, 19 adenocarcinoma patients were documented as having Barrett's Esophagus. Only one of the SCC patients was documented as having Barrett's. Unfortunately, 30 patients had no specific documentation of either having or not having Barrett's. If pathologic evaluation was done and Barrett's was not mentioned, the study assumed Barrett's was not present.

### **Frequency of Barrett's Esophagus**

Barrett's	AdenoCa 19	Squamous Cell Ca 1
No Barrett's	18	12

Of the study patients, four were stage I, 15 were stage II, 15 were stage III and 16 were stage IV. Note that the small sample populations limit their statistical significance.



#### **Stage at Diagnosis Distribution**



Source of NCBD Data: National Cancer Data Base Benchmark Reports

However, the study is relevant in that it provides some insight into how esophageal cancer is managed at Watson Clinic. NCCN guidelines recommend essentially the same pre-treatment workup for every stage with the exception of stage IV, where complete workup may not be needed once stage IV disease is established. All recommended workup procedures were performed or considered for all stage I-III study patients with the exception of three cases where workup was completed elsewhere before coming to Watson Clinic and the precise procedures were unknown. Of the stage I-III study patients whose workup was known, three patients did not receive EUS because the procedure was medically contraindicated due to obstruction or inability to withstand surgical procedures.









Stage IV - Work-up





Stage II - Work-up

NCCN guidelines were followed except in cases where medical decisions or the patient's wishes dictated treatment. The assessment showed that stage I cancers were more often treated with radiation due to patients' surgical risks. NCDB data showed more surgery alone. The difference was statistically insignificant because of the very small population of stage I patients. Stage II and III patients were treated more often than NCDB patients with combination therapies that included surgery.



**Stage II - Treatment Combinations** 



**Stage IIII - Treatment Combinations** 



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#### **Outcomes**

Overall survivals (OS) among the study population were better for every stage than in the NCDB population used for comparison. Even though the overall study number is small, there are excellent esophageal cancer two-year survivals by stage seen in comparison to NCDB.

#### **Esophageal Cancer Two-Year OS by Stage**

	WC
Stage I	75.0%
Stage II	53.3%
Stage III	40.0%
Stage IV	31.3%

#### **Recommendations:**

- Avoiding tobacco use and consuming alcohol only in moderation are known to greatly reduce the risk of esophageal cancer.
- Because risk for adenocarcinoma of the esophagus is associated with higher BMI which is also associated with Barrett's Esophagus, weight control can reduce a patient's risk for both of these as well as reducing risk for several other cancers
- Routine endoscopies might be considered for high-risk patients, especially those with Barrett's Esophagus, frequent heartburn, gastroesophageal reflux disease (GERD) and higher BMI.
- Record relevant details in esophageal patient records, including performance scores, Her2/Neu status and history of Barrett's (positive or negative)
- Upload all relevant outside records into the facility's electronic medical record.

NCDB 65.0% 44.6% 29.2% 9.3%





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

#### **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, cancerdirected 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

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 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.









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