



**CAPE FEAR VALLEY
CANCER TREATMENT
and CYBERKNIFE CENTER**

2018 ANNUAL REPORT





Chairman's Report

ISTVAN PATAKI, MD, FRCP (C)

It is my pleasure to present 2018 Annual Report of the Cancer Committee of Cape Fear Valley Health System, on behalf of the Cancer Committee. The purpose of this report is to demonstrate the activities of the cancer program throughout the year. This is done in accordance with the guidelines provided by the American College of Surgeons' Commission on Cancer (CoC).

2018 was an eventful year for our program.

We have invested significantly in state of the art new technology in the Department of Radiation Oncology. A new Varian True Beam Linear Accelerator was purchased, and went live this year. This is an advanced linear accelerator producing therapeutic radiation, which can treat cancer anywhere in the body where radiation treatment is indicated. This sophisticated machine is fully integrated for image guided radiotherapy, intensity modulated radiotherapy, as well as radiosurgery with enhanced speed and accuracy. We have also added the Eclipse radiotherapy planning software system, which is an advanced and comprehensive treatment planning system for delivering radiotherapy.

In our constant efforts to improve and expand our programs through the cancer Center, we have improved local access to genetic testing and counseling. In the past, patients had to travel long distances to obtain the services, but now we have professionals specifically trained ready to see our patients here locally. We have done the same for breast reconstruction surgery. In the past, patients who required this kind of surgical reconstruction after mastectomy for a breast cancer diagnosis, also had to travel, but now have access to plastic surgery services locally.

We have also been preparing for accreditation renewal of our comprehensive cancer program by the American College of surgeons (ACoS), which will take place in the

summer of 2019. This is a lengthy and arduous process where the ACoS Commission on Cancer ensures that our program complies with their strict standards. The benefit of accreditation is tremendous for our patients. Accreditation provides the framework for our cancer center to improve patient care, through the variety of programs that we have implemented, and it showcases to our patients our commitment to deliver the highest quality care possible. Our medical oncology program underwent Quality Oncology Practice Initiative (QOPI) Certification. This certification process creates a culture of excellence and self-examination, helping medical oncology practices deliver the best care to their patients. By becoming certified, our practice demonstrated its commitment to quality to patients, as well as to the medical community. We have also been hard at work in preparation for the reaccreditation process that will take place for our breast program by the National Accreditation Program for Breast Centers (NAPBC) as well as accreditation that the radiation oncology program will undergo for American College of Radiology certification.

I am proud to be the chairman of the cancer program at Cape Fear Valley Health. I am also proud of our team members who have accomplished a great deal this year. As always, we as a team are constantly striving for improvements in our current program. We are always looking for ways to improve access to our program to all patients, to expand the program wherever possible.

Sincerely,

A handwritten signature in black ink, appearing to read "I. Pataki". The signature is fluid and cursive.

Istvan Pataki, M.D., FRCP (C)

Chair, Cancer Committee

Cancer Registry Report

RUBY J. REGENHARDT, CTR

Twenty-seventeen was a busy year for the Cancer Registry. We abstracted a total of 1,399 analytic cases (patients diagnosed and/or receiving their first course of treatment at our facility). As a CoC-approved facility we continually assess the quality of care we provide, and one method of evaluation is by comparing the survival of all analytic cases (patients) with national norms. In addition, a total of 137 non-analytic cases (patients that receive subsequent treatment) were also abstracted into the registry database. All analytic and non-analytic cases must be reported to North Carolina Central Cancer Registry so that accurate cancer incidence figures can be calculated.

In 2017 the registry also started reporting cancer cases for Betsy Johnson Hospital in Dunn and Harnett Health.

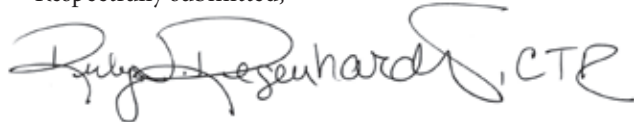
We continue to submit cases monthly for RQRS (Rapid Quality Reporting System) for breast and colorectal cases. RQRS is a quality reporting tool of the National Cancer Data Base (NCDB). The RQRS serves to assess compliance with four National Quality Forum (NQF)- endorsed accountability performance measures for breast and colon cancers and one NQF-endorsed quality improvement measure for colon cancer in real clinical time.

The cancer registry is currently involved with the North Carolina Central Cancer Registry on four active RCA (Rapid Case Ascertainment) studies for the following sites: Medullary Thyroid Cancer, Head & Neck Cancer (Oropharyngeal), Prostate Cancer and pathologic Stage IV Lung cancer. Involvement in these studies also helps the Cancer Program to reach its goal of 6% in Clinical Trail accruals.

This past year, the registry also participated in the Commission on Cancer Special Study for DCIS of the breast. The Special Study investigated outcomes for DCIS treatment retrospectively. Current NCCN guidelines dictate that DCIS be treated upon diagnosis with a combination of surgery, radiation and hormonal therapy. There is now emerging discussion whether active surveillance for DCIS may also be a safe and less morbid option for some women.

Also, the cancer registry CTRs and follow-up tech are currently undergoing educational training on new and advanced data items and the AJCC 8th Ed. Staging manual for 2018 cases. Currently 2018 abstracted cases must remain incomplete until AJCC 8th Ed. is updated in the registry software.

Respectfully submitted,



Ruby J. Regenhardt, CTR

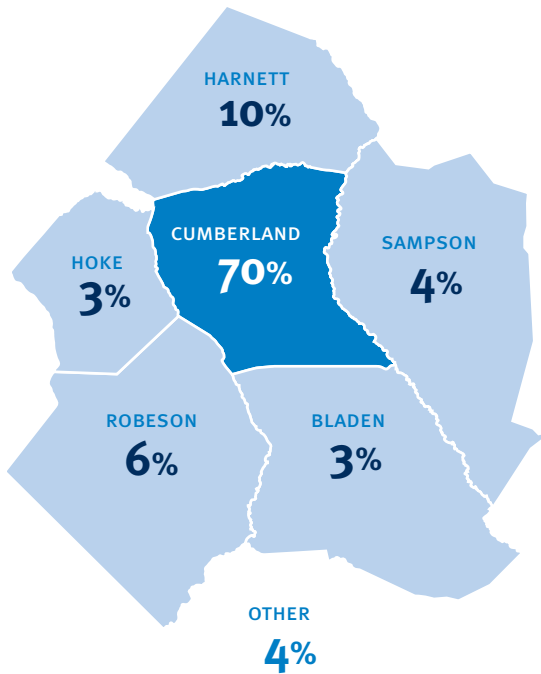
Cancer Registry Supervisor

Cancer Statistics

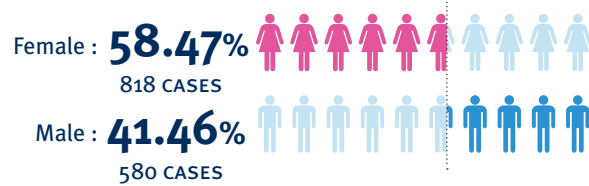
Top 5 Sites

2017	2016	2014	2013	2012
Breast 369	Breast 304	Breast 329	Breast 278	Breast 296
Lung 250	Lung 241	Lung 218	Lung 212	Lung 248
Prostate 106	Prostate 114	Colon 98	Prostate 96	Prostate 135
Colon 89	NHL 80	Prostate 98	Colon 85	Colon 109
Bladder 54	Colon 65	Bladder 44	NHL 38	NHL 35

2017 Diagnosis by County



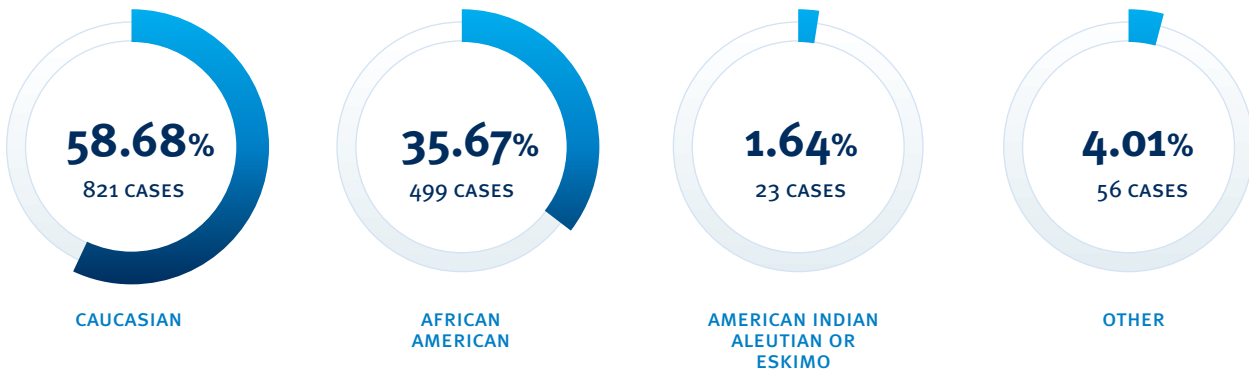
2017 Cancer Cases by Sex*



2017 Age at Diagnosis

AGE	COUNT	PERCENT
0-29	17	1.22%
30-39	37	2.64%
40-49	111	7.93%
50-59	266	19.01%
60-69	440	31.45%
70-79	351	25.09%
80-89	149	10.65%
90+	28	2.0%
Unknown	0	0%
Total	1,399	100%

2017 Cases by Race



*1 case excluded. Patient does not identify as male or female.

Cancer Statistics

2017 Cancer Cases

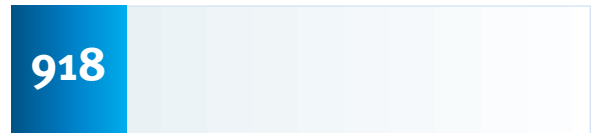
Men	COUNT	PERCENT
Prostate	106	18.3%
Lung & Bronchus	149	25.7%
Colon & Rectum	60	10.3%
Urinary Bladder	41	7.0%
Melanoma of Skin	5	0.9%
Kidney & Renal Pelvis	4	0.6%
Non-Hodgkin Lymphoma	25	4.3%
Oral Cavity	17	2.9%
Leukemia	9	1.6%
Liver & Intrahepatic Bile Duct	12	2.2%
All Other Sites	152	26.2%
Total for Men	580	100%

Women	COUNT	PERCENT
Breast	368	45.0%
Lung & Bronchus	101	12.3%
Colon & Rectum	62	7.6%
Uterine Corpus	38	4.6%
Thyroid	13	1.6%
Non-Hodgkin Lymphoma	19	2.3%
Melanoma of Skin	6	0.7%
Kidney & Renal Pelvis	4	0.5%
Pancreas	33	4.0%
Leukemia	11	1.3%
All Other Sites	163	20.1%
Total for Women	818	100%

Excludes basal and squamous cell skin cancers and in situ carcinoma except urinary bladder.

Radiation Oncology, Medical Oncology and Hematology Patients

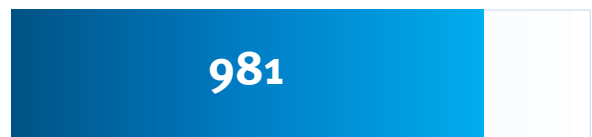
RADIATION ONCOLOGY UNIQUE PATIENTS



MEDICAL ONCOLOGY UNIQUE PATIENTS



HEMATOLOGY UNIQUE PATIENTS



900 ————— 1,000

Summary by Body System, Sex, Class, Status and Best AJCC Stage Report

PRIMARY SITE	TOTAL (%)	SEX		CLASS		STATUS		STAGE DISTRIBUTION ANALYTIC CASES ONLY					UNKNOWN		
		M	F	ANALY	NA	ALIVE	EXP	0	I	II	III	IV	88	BLANK/INV	
ORAL CAVITY & PHARYNX	26 (1.9%)	17	9	26	0	22	4	0	3	5	5	12	0	1	0
Lip	1 (0.1%)	0	1	1	0	1	0	0	1	0	0	0	0	0	0
Tongue	4 (0.3%)	3	1	4	0	4	0	0	1	1	0	1	0	1	0
Salivary Glands	3 (0.2%)	2	1	3	0	3	0	0	1	2	0	0	0	0	0
Floor of Mouth	1 (0.1%)	1	0	1	0	1	0	0	0	0	0	1	0	0	0
Gum & Other Mouth	3 (0.2%)	2	1	3	0	2	1	0	0	0	1	2	0	0	0
Nasopharynx	1 (0.1%)	1	0	1	0	1	0	0	0	1	0	0	0	0	0
Tonsil	8 (0.6%)	5	3	8	0	7	1	0	0	1	3	4	0	0	0
Oropharynx	2 (0.1%)	1	1	2	0	1	1	0	0	0	1	1	0	0	0
Hypopharynx	3 (0.2%)	2	1	3	0	2	1	0	0	0	0	3	0	0	0
DIGESTIVE SYSTEM	287 (20.5%)	147	140	287	0	168	119	11	57	52	43	91	6	27	0
Esophagus	16 (1.1%)	15	1	16	0	7	9	1	2	2	3	6	0	2	0
Stomach	27 (1.9%)	16	11	27	0	16	11	0	6	4	5	9	0	3	0
Small Intestine	11 (0.8%)	6	5	11	0	9	2	0	4	1	2	1	0	3	0
Colon Excluding Rectum	89 (6.4%)	42	47	89	0	70	19	3	23	22	15	18	0	8	0
<i>Cecum</i>	28	17	11	28	0	21	7	1	2	9	5	11	0	0	0
<i>Appendix</i>	6	1	5	6	0	6	0	0	1	2	1	0	0	2	0
<i>Ascending Colon</i>	15	7	8	15	0	14	1	1	7	5	2	0	0	0	0
<i>Hepatic Flexure</i>	2	1	1	2	0	2	0	0	1	0	0	1	0	0	0
<i>Transverse Colon</i>	5	3	2	5	0	4	1	0	2	2	0	0	0	1	0
<i>Splenic Flexure</i>	3	2	1	3	0	2	1	0	2	0	1	0	0	0	0
<i>Descending Colon</i>	11	4	7	11	0	8	3	1	3	1	4	2	0	0	0
<i>Sigmoid Colon</i>	13	4	9	13	0	11	2	0	5	2	2	0	0	4	0
<i>Large Intestine, NOS</i>	6	3	3	6	0	2	4	0	0	1	0	4	0	1	0
Rectum & Rectosigmoid	33 (2.4%)	18	15	33	0	29	4	2	9	2	7	8	0	5	0
<i>Rectosigmoid Junction</i>	7	4	3	7	0	4	3	1	2	0	0	4	0	0	0
<i>Rectum</i>	26	14	12	26	0	25	1	1	7	2	7	4	0	5	0
Anus, Anal Canal & Anorectum	14 (1.0%)	2	12	14	0	11	3	4	2	4	3	1	0	0	0
Liver & Intrahepatic Bile Duct	18 (1.3%)	12	6	18	0	7	11	0	2	2	2	8	2	2	0
<i>Liver</i>	12	8	4	12	0	4	8	0	2	1	2	5	1	1	0
<i>Intrahepatic Bile Duct</i>	6	4	2	6	0	3	3	0	0	1	0	3	1	1	0
Gallbladder	7 (0.5%)	3	4	7	0	1	6	1	0	0	1	3	0	2	0
Other Biliary	7 (0.5%)	6	1	7	0	2	5	0	0	2	1	3	0	1	0
Pancreas	58 (1.4%)	25	33	58	0	13	45	0	9	13	2	34	0	0	0
Retroperitoneum	1 (0.1%)	0	1	1	0	1	0	0	0	0	0	0	0	1	0
Peritoneum, Omentum & Mesentery	2 (0.1%)	0	2	2	0	2	0	0	0	0	2	0	0	0	0
Other Digestive Organs	4 (0.3%)	2	2	4	0	0	4	0	0	0	0	0	4	0	0
RESPIRATORY SYSTEM	262 (18.7%)	156	106	262	0	113	149	1	58	14	67	113	0	9	0
Nose, Nasal Cavity & Middle Ear	1 (0.1%)	0	1	1	0	1	0	0	1	0	0	0	0	0	0
Larynx	11 (0.8%)	7	4	11	0	7	4	1	3	0	1	5	0	1	0
Lung & Bronchus	250 (17.9%)	149	101	250	0	105	145	0	54	14	66	108	0	8	0
SOFT TISSUE (including Heart)	7 (0.5%)	4	3	7	0	7	0	0	1	4	0	1	0	1	0
SKIN EXCLUDING BASAL & SQUAMOUS	12 (0.9%)	5	7	12	0	11	1	4	2	4	1	1	0	0	0
Melanoma - Skin	11 (0.8%)	5	6	11	0	10	1	4	1	4	1	1	0	0	0
Other Non-Epithelial Skin	1 (0.1%)	0	1	1	0	1	0	0	1	0	0	0	0	0	0

Summary by Body System, Sex, Class, Status and Best AJCC Stage Report

PRIMARY SITE	TOTAL (%)	SEX		CLASS		STATUS		STAGE DISTRIBUTION ANALYTIC CASES ONLY						UNKNOWN	
		M	F	ANALY	NA	ALIVE	EXP	0	I	II	III	IV	88	BLANK/INV	
BREAST	369 (26.4%)	1	368	369	0	350	19	63	163	83	26	22	2	10	0
FEMALE GENITAL SYSTEM	72 (5.2%)	0	72	72	0	58	14	0	31	7	14	7	1	12	0
Cervix Uteri	13 (0.9%)	0	13	13	0	11	2	0	4	3	6	0	0	0	0
Corpus & Uterus, NOS	38 (2.7%)	0	38	38	0	35	3	0	22	2	2	3	0	9	0
<i>Corpus Uteri</i>	36	0	36	36	0	33	3	0	22	2	2	2	0	8	0
<i>Uterus, NOS</i>	2	0	2	2	0	2	0	0	0	0	0	1	0	1	0
Ovary	14 (1.0%)	0	14	14	0	8	6	0	4	2	4	2	0	2	0
Vagina	1 (0.1%)	0	1	1	0	0	1	0	1	0	0	0	0	0	0
Vulva	4 (0.3%)	0	4	4	0	3	1	0	0	0	2	1	0	1	0
Other Female Genital Organs	2 (0.1%)	0	2	2	0	1	1	0	0	0	0	1	1	0	0
MALE GENITAL SYSTEM	112 (8.0%)	112	0	112	0	105	7	0	14	70	6	14	0	8	0
Prostate	106 (7.6%)	106	0	106	0	99	7	0	11	70	5	14	0	6	0
Testis	6 (0.4%)	6	0	6	0	6	0	0	3	0	1	0	0	2	0
URINARY SYSTEM	66 (4.7%)	49	17	66	0	47	19	29	14	6	2	11	1	3	0
Urinary Bladder	54 (3.9%)	41	13	54	0	40	14	28	12	6	1	5	0	2	0
Kidney & Renal Pelvis	8 (0.6%)	4	4	8	0	4	4	0	2	0	0	5	0	1	0
Ureter	3 (0.2%)	3	0	3	0	2	1	1	0	0	1	1	0	0	0
Other Urinary Organs	1 (0.1%)	1	0	1	0	1	0	0	0	0	0	0	1	0	0
BRAIN & OTHER NERVOUS SYSTEM	19 (1.4%)	7	12	19	0	14	5	0	0	0	0	0	19	0	0
Brain	13 (0.9%)	7	6	13	0	9	4	0	0	0	0	0	13	0	0
Cranial Nerves, Other Nervous System	6 (0.4%)	0	6	6	0	5	1	0	0	0	0	0	6	0	0
ENDOCRINE SYSTEM	17 (1.2%)	2	15	17	0	15	2	0	8	1	0	1	4	3	0
Thyroid	14 (1.0%)	1	13	14	0	13	1	0	8	1	0	1	1	3	0
Other Endocrine	3 (0.2%)	1	2	3	0	2	1	0	0	0	0	0	3	0	0
LYMPHOMA	52 (3.7%)	29	23	52	0	38	14	0	5	10	14	19	0	4	0
Hodgkin Lymphoma	8 (0.6%)	4	4	8	0	6	2	0	0	0	2	4	0	2	0
<i>Hodgkin Lymphoma - Nodal</i>	7	3	4	7	0	5	2	0	0	0	2	3	0	2	0
<i>Hodgkin Lymphoma - Extranodal</i>	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0
Non-Hodgkin Lymphoma	44 (3.1%)	25	19	44	0	32	12	0	5	10	12	15	0	2	0
<i>Non-Hodgkin Lymphoma - Nodal</i>	36	21	15	36	0	27	9	0	3	9	11	12	0	1	0
<i>Non-Hodgkin Lymphoma - Extranodal</i>	8	4	4	8	0	5	3	0	2	1	1	3	0	1	0
MYELOMA	20 (1.4%)	11	9	20	0	14	6	0	0	0	0	0	20	0	0
LEUKEMIA	20 (1.4%)	9	11	20	0	14	6	0	0	0	0	0	20	0	0
Lymphocytic Leukemia	15 (1.1%)	7	8	15	0	11	4	0	0	0	0	0	15	0	0
Myeloid & Monocytic Leukemia	4 (0.3%)	2	2	4	0	3	1	0	0	0	0	0	4	0	0
<i>Acute Myeloid Leukemia</i>	1	1	0	1	0	1	0	0	0	0	0	0	1	0	0
<i>Acute Monocytic Leukemia</i>	1	1	0	1	0	0	1	0	0	0	0	0	1	0	0
<i>Chronic Myeloid Leukemia</i>	2	0	2	2	0	2	0	0	0	0	0	0	2	0	0
Other Leukemia	1 (0.1%)	0	1	1	0	0	1	0	0	0	0	0	1	0	0
MESOTHELIOMA	1 (0.1%)	1	0	1	0	0	1	0	0	0	0	0	0	1	0
MISCELLANEOUS	56 (4.0%)	30	26	56	0	21	35	0	0	0	0	0	56	0	0
TOTAL	1,398*	580	818	1,398	0	997	401	108	356	256	178	292	129	79	0

*1 case excluded. Patient does not identify as male or female.



**CAPE FEAR VALLEY
CANCER TREATMENT
and CYBERKNIFE CENTER**

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CANCER CENTER AT HARNETT**

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