



2016 Cancer Program Annual Report

Based on 2015 Data

Presented to the Oncology Committee
2016



Commission
on Cancer

Community Hospital Comprehensive
Cancer Program

Surveyed October 2013
Approved with Commendation

 **Parkridge
Medical Center**

PARKRIDGE HEALTH SYSTEM

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2014**

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Derek Holland, MD	Cancer Conference Coordinator, Medical Oncology
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Mary Phillips, BSHA, RN	Palliative Care Coordinator, Case Manager

Community Outreach Report 2015

Parkridge Medical Center

During 2015, the community outreach for Hamilton County and the surrounding counties focused on providing information on early detection of colon cancer with proper screening and helping to support organizations that improve the quality of life for survivors.

Primary Prevention

In the **State of Tennessee Cancer Plan 2013-2017**, the primary prevention goal is to “raise awareness of actions that can be taken by individuals, communities, government, or other groups to prevent the occurrence of cancer through healthy lifestyle choices.” In line with this cancer prevention goal, we promoted the Great American Smokeout on November 19, 2015 and had smoking cessation materials available to patients and family members. Also, Parkridge Medical Center continues the dietary program in the cafeteria to encourage healthy choices. This initiative, called the Mindful Program, offers a variety of lower-sodium, lower-calorie entrée and dessert options. This program is also connected to the MyFitnessPal, which is a calorie counting weight loss app for smart phones. In March at the Rump Run, we provided participants with information on high fiber, healthy diet information and other colon cancer preventative measures.

Early Detection

In the **State of Tennessee Cancer Plan 2013-2017**, the early detection goal is to “increase detection of cancer at acceptable rates when disease is not causing a symptom and when treatment is more likely to be successful. Increase awareness regarding family history and risk factors for cancer.” In line with the early detection goal, Parkridge Medical Center participated in many different events related to the early detection of cancer.

March 21, 2015-We participated in the “Chattanooga Rump Run” to raise awareness about colon cancer. Parkridge had a couple teams participate and two employees participated on the planning committee for the event. Parkridge also had a table at the event with information on high fiber diets, healthy eating and activity, and the importance of colon cancer screening. Approximately 45 participants visited the table for education. The event raised approximately \$30,000 for the Greater Chattanooga Colon Cancer Coalition, which will be used for colon cancer awareness, education, and screening. There were over 500 participants overall.

Summer/Fall 2015- Parkridge Medical Center is a part of Project Access which partnered with the Greater Chattanooga Colon Cancer Foundation to provide colonoscopies to uninsured and underinsured individuals. Gastroenterologists donate their time and choose the facility to schedule the patients to have these colonoscopies done. As of December, none of the physicians had done colonoscopies at our Parkridge facility. This project is continuing through 2016 and Parkridge will continue to be involved.

All year- Monthly mammography cards were mailed to patients to remind them to get their annual screening mammogram. Over 2200 cards were mailed to patients at Parkridge Medical Center and Parkridge East Hospital.

We continue our CT lung screening program at Parkridge Medical Center and Parkridge East Hospital. Patients with a smoking history and in a certain age group may qualify for a screening with a physician's order. This year, 113 patients have been screened this year with six having positive readings.

Survivorship

In the **State of Tennessee Cancer Plan 2013-2017**, the survivorship goal is to "improve Tennessee cancer survivors' quality of life through education and advocacy initiatives that address the physical, emotional, and practical challenges of cancer survivorship." In line with this goal, Parkridge Medical Center has collaborated with non-profit organizations to provide continuum of care and access to additional resources and support for our cancer patients.

April 24, 2015- We hosted the sixth annual Wine & Pearls to benefit PearlPoint Cancer Support. We had 250 guests in attendance. PearlPoint Cancer Support complements cancer care and compassionately helps people to navigate the journey through a cancer diagnosis. Services offered through this foundation are clinical trial advice, nutrition consultations, social work consultations, and comprehensive and education materials. All of these services are offered free of charge regardless of treatment facility.

Recommendations for 2016

The number of colon cancer cases that were diagnosed at Parkridge Medical Center as late stage, 3 or 4, are still quite high in comparison to the early stage colon cancer, 1 or 2. However, we have not had great success with community screening the past several years, even with changing modalities. Our breast cancer numbers are showing that we have an increased number of later stage at diagnosis, particularly stage 3. Breast cancer is also one of the top five cancer sites in our community. We recommend that we focus our community outreach efforts in 2016 on breast cancer. We will educate the community on breast self-exam and frequency and age of mammogram. Our screening event will tentatively be a breast screening event with mammogram that includes an educational component.

**Cancer Registry Report
Parkridge Medical Center
2015 Data**

During the 2015 calendar year, a total of 483 cases of cancer were accessioned into the Cancer Registry at Parkridge Medical Center. These were cases of cancer which were seen for the first time here in 2015. Of this number 402 (83%) were cases that were newly-diagnosed and/or received part of the first course of treatment here. The remaining 85 cases were seen for recurrence or progression of a previously diagnosed cancer which had been treated elsewhere and came here for the first time in 2015.

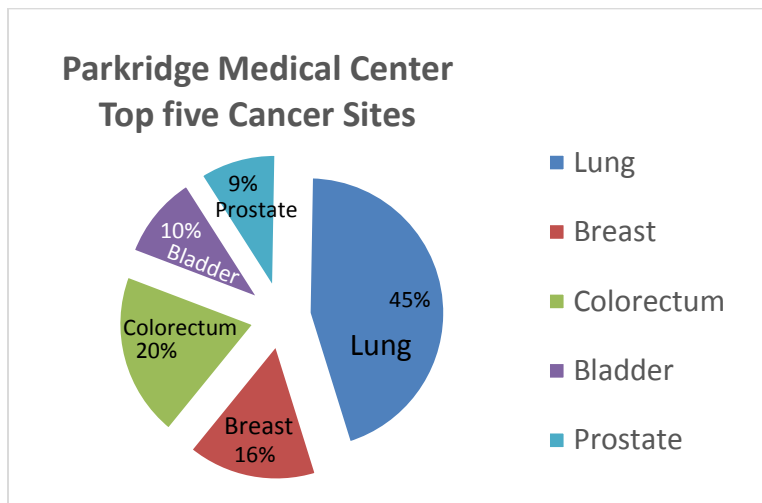
Reviewing the site distribution over the last five years shows that lung cancer has consistently been the number one site with breast cancer, colorectum cancer, urinary bladder cancer and prostate cancer completing the top five sites seen at Parkridge Medical Center. The top five sites for the nation and Tennessee are very similar to Parkridge Medical Center. With the exception of melanoma which was estimated to be the fifth most prevalent cancer in Tennessee and Prostate was the number one site for the nation as reported in American Cancer Society, Cancer Facts & Figures for 2015.

Analytic Cases by Site

	Parkridge Medical Center	Tennessee*	National*
Total	402	37,650	1,685,210
Lung	106	6,010	224,390
Colorectum	47	3,130	134,490
Breast	37	5,420	249,260
Urinary Bladder	24	1,590	76,960
Prostate	22	3,370	180,890

*American Cancer Society, Cancer Facts 2016 estimated new cases

This pie chart shows that a large percentage of our top five sites for 2015 cases were lung cancer. This is in line with the projected lung cancer cases for Tennessee. However prostate cancer is the number one cancer site for the United States as estimated by the American Cancer Society.



**Cancer Registry Report
Parkridge Medical Center
2015**

Distribution by Stage at Diagnosis

The stage at diagnosis is used to determine extent of disease, treatment plans and determine the quality of life once the patient has received treatment. The lower the stage at diagnosis the better the outcome from treatment, thus improved quality of life and survival.

Site	Stage 0	Stage I	Stage II	Stage III	Stage IV
Lung	0	32	10	29	29
Breast*	2	15	14	3	3
Colon	1	9	6	5	9
Bladder	10	7	2	1	3
Prostate	0	3	15	0	3

***Number reflect breast in women**

Lung cancer is the number one cancer nationally and for Parkridge Medical Center. According to the American Cancer Society Cancer Facts and Figures (2015) smoking is the most important risk factor for lung cancer. Smoking is also considered one of the most preventable risk factor. The types of ways tobacco is used, the quantity and the length of time vary the level of risk for developing cancer. Additionally, the exposure to other toxic substances, such as asbestosis, metals and second hand smoke increases the risk of developing lung cancer.

Parkridge Medical Center
2015 Cases

Primary Site	Total	Sex		Class of Case		Vital Status		Stage at diagnosis						
		M	F	Anal	NA	Alive	Exp	St 0	St I	St II	St III	St IV	88	Unk
Head & Neck	11	6	5	11	1	10	1	1	2	0	1	4	0	4
Esophagus	5	4	1	4	1	2	3	1	1	0	0	1	0	1
Stomach	8	6	2	8	0	4	4	0	2	1	1	1	0	3
Small Intestine	3	3	0	2	1	2	1	0	0	0	0	0	0	2
Colorectum	50	31	19	47	3	43	7	3	11	6	9	14	0	4
Anus, Anal Canal & Anorectum	2	0	2	2	0	2	0	0	0	0	1	0	0	1
Liver & Intrahepatic Bile Duct	7	5	2	7	0	1	6	0	3	1	0	2	1	0
Gallbladder	1	0	1	1	0	0	1	0	0	0	0	1	0	0
Pancreas	11	3	8	9	2	1	10	0	0	2	0	5	0	2
Other Digestive Organs	2	1	1	1	1	1	1	0	0	0	0	0	1	0
Nose, Nasal Cavity & Middle Ear	1	1	0	1	0	1	0	0	0	0	0	0	1	0
Lung & Bronchus	126	68	58	106	20	79	47	0	32	10	29	29	1	5
Trachea, Mediastinum & Other Respiratory	1	1	0	1	0	1	0	0	0	0	0	0	1	0
Soft Tissue (including Heart)	1	0	1	1	0	1	0	0	0	0	0	0	0	1
Melanoma/Other Skin	7	4	3	6	1	7	0	0	4	0	1	1	0	0
Breast	46	0	46	37	9	45	1	2	15	14	3	3	0	0
Cervix Uteri	3	0	3	3	0	3	0	0	1	0	1	0	0	1
Corpus & Uterus, NOS	6	0	6	5	1	5	1	0	2	1	2	0	0	0
Ovary	12	0	12	12	0	11	1	0	3	1	4	4	0	0
Vulva	5	0	5	4	1	5	0	0	3	0	1	0	0	0
Other Female Genital Organs	1	0	1	1	0	0	1	0	0	0	0	0	1	0
Prostate	32	32	0	22	10	29	3	0	3	15	0	3	0	1
Urinary Bladder	31	22	9	24	7	28	3	10	7	2	1	3	0	1
Kidney & Renal Pelvis	16	10	6	13	3	15	1	0	8	2	1	2	0	0
Ureter	1	1	0	0	1	1	0	0	0	0	0	0	0	0
Brain	5	2	3	4	1	5	0	0	0	0	0	0	4	0
Cranial Nerves Other Nervous System	6	0	6	6	0	5	1	0	0	0	0	0	6	0
Thyroid	7	4	3	6	1	6	1	0	1	2	1	0	0	2
Non-Hodgkin Lymphoma	18	6	12	15	3	16	2	0	2	2	4	4	0	3
Myeloma	11	5	6	6	5	8	3	0	0	0	0	0	6	0
Lymphocytic Leukemia	12	9	3	8	4	10	2	0	0	0	0	0	8	0
Myeloid & Monocytic Leukemia	14	8	6	12	2	7	7	0	0	0	0	0	12	0
Other Leukemia	1	0	1	1	0	0	1	0	0	0	0	0	1	0
Kaposi Sarcoma	2	2	0	0	2	1	1	0	0	0	0	0	0	0
Miscellaneous	18	6	12	17	1	9	9	0	0	0	0	0	17	0
Total	483	240	243	402	81	364	119	16	99	59	60	77	60	31

n Cancer

Standard 4.7: Studies of Quality

Laura E. Witherspoon, MD, FACS

Cancer Liaison Physician

Background:

A review of colon cancer stage at Parkridge Medical Center (PMC) was undertaken during the past year as part of Standard 4.8. Years 2008-2012 were reviewed with regard to stage at presentation and factors which may influence this. The largest percentage group of patients at PMC actually presented with Stage IV disease (23%), higher than for other hospitals. Therefore, fewer patients presented with early stage colon cancer. The associated factors available in the National Cancer Database (NCDB) were examined for correlation with late stage presentation: age, gender, race, insurance status, distance traveled for treatment, income status, and educational status. None of these factors appeared to correlate with advanced stage colon cancer at presentation.

This study was undertaken to determine other factors which may correlate with Stage IV presentation of colon cancer. All analytic colon cancer cases from PMC for 2014 were collected. These exclude rectal cancer and include appendix cancer. There were a total of 28 analytic cases for 2014. Male to female ratio was approximately even. There were five Stage I patients, nine Stage II patients, four Stage III patients, nine Stage IV patients, and one unknown stage. Seven cancers were located in the cecum, two cancers in the appendix, six in the right colon, two in the transverse colon, three in the splenic flexure, one in the left colon, and seven in the sigmoid colon. There are no comparison data available yet throughout the NCDB for 2014.

The basis of this study is a review of the nine patients presenting in 2014 to PMC with Stage IV colon cancer. Tumor Registry abstracts were obtained for review. Hospital records from PMC as well as available office records were also reviewed for these patients. The following data were collected:

Details of clinical presentation and treatment
Site of patient presentation: emergency room vs office
Pattern of metastatic disease
History of colonoscopy or other screening for colon cancer
Co-morbidities
Histologic classification and location of primary tumor
Current patient status: alive vs deceased

Data:

In patients presenting with Stage IV colon cancer, three were right colon, two were splenic flexure, one was sigmoid, one was cecum, one was left colon, and one was appendix in location. One patient had a neuroendocrine tumor of the cecum. The other eight patients had adenocarcinoma histology, three of them with mucinous features.

Five of these patients are deceased, and they died between one month and fifteen months after initial therapy. Four are alive with one in hospice care and two receiving chemotherapy.

Six of the Stage IV patients presented to the emergency room with several symptoms of varying duration. Two patients were seen initially in the office setting, one patient asymptomatic, and another patient was seen for a clotted dialysis graft.

The patient with appendix cancer had undergone colonoscopy within the previous year. Two patients were under fifty years old and thus below screening age. There was no available information

regarding colonoscopy in the remaining patients. Two of those patients were octogenarians and would presumably be out of screening age as well.

Six patients presented with liver metastases and two of these patients also had lung metastases. Three patients had peritoneal metastases, and in two patients these were discovered at the time of surgery. The patient with appendix cancer had pseudomyxoma peritonei.

Except for a forty-one year old female patient, the remaining patients had multiple co-morbidities documented. Patient #1 carried a diagnosis of Stage IV colon cancer and diabetes mellitus when he presented with another colon primary tumor. Patient #2 had oxygen dependent COPD, diabetes mellitus, and atrial fibrillation. Patient #3, a 49 year old man with the neuroendocrine tumor had end-stage renal disease on hemodialysis and antiphospholipid antibody syndrome. Patient #5 had diabetes mellitus, hypertension, and a history of prostate cancer. Patient #6 had cardiac disease, COPD, diabetes mellitus, and history of stroke. Patient #7 had cardiac disease and COPD. Patient #8 had cardiac disease, myasthenia gravis, and hypertension. Patient #9 had hypertension, atrial fibrillation, and obesity.

This group of patients had a variety of clinical presentations. Two patients presented with blood per rectum; one of these was the patient with prior Stage IV colon cancer. The second patient (age 87) developed rectal bleeding on Plavix, and colonoscopy revealed a right colon cancer. Four patients presented to the emergency room with obstructive symptoms such as obstipation, nausea and vomiting, abdominal pain, and distention. The patient on dialysis presented with a clotted graft and subsequent ultrasound showed liver metastases. Another patient presented with leg pain and was found to have bilateral deep venous thrombosis and pulmonary emboli. A female patient was referred to a gynecologic oncologist because of an asymptomatic pelvic mass; she was later found to have appendix cancer.

Seven of these patients underwent palliative surgery for symptoms. Two patients underwent surgery with curative intent: one was found to have peritoneal metastases and one was found to have pseudomyxoma peritonei. Four patients refused or were not advised to have chemotherapy. The remainder received or are receiving chemotherapy.

Conclusions:

This study was undertaken to determine factors which may correlate with presentation of colon cancer at Stage IV. Most cancers were proximal to the left colon with only two of nine cancers being distal to the splenic flexure. Proximal colon cancer is less likely to present with obstruction early on: four patients presented primarily with obstruction. Seven patients ultimately underwent surgery for obstructive symptoms.

Six of these patients presented to the emergency room with varying degrees of symptoms. Except for the patient who presented with deep venous thrombosis, it was not clear how many of these patients had regular medical care from a primary care provider. One patient with right colon cancer had been treated at PMC through the emergency room two months previously. The patient had presented with abdominal symptoms and was thought on CT scan to have right colon diverticulitis. This was the site of her colon cancer when she again presented two months later. There was no information available as to her follow-up in the interim.

This study was unable to determine the status of colorectal screening for all but one patient who had undergone colonoscopy. Four of the patients appeared to be outside the recommended screening parameters, and thus the usual screening recommendations would not have aided them. One patient had an established diagnosis of Stage IV colon cancer and would not have had a recommendation for routine colonoscopy.

All but one of these patients had significant co-morbid conditions. These may have had an effect on recommendations for colon cancer screening and may have had an effect on their clinical

presentation. The degree of routine medical care these patients received outside the hospital setting was unknown.

In summary, factors associated with Stage IV presentation of colon cancer were cancer proximal to the left colon causing obstruction, presentation to the emergency room, and multiple co-morbidities. With the possible exception of the patient seen in the emergency room two months earlier, there were no obvious opportunities for earlier intervention.

Treatment of N2 Lung Cancer at Parkridge Medical Center

Standard 4.6

Laura E. Witherspoon, MD, FACS

Cancer Liaison Physician

Purpose: The purpose of this study is to assess compliance with National Cancer Center Network (NCCN) guidelines with respect to treatment of certain stages of lung cancer. Clinical N2 lung cancer means the presence of metastasis to the lymph nodes of the ipsilateral mediastinum and/or subcarinal nodes. NCCN guidelines for non-small cell and small cell lung cancer state that appropriate first course of therapy for clinical N2 disease should not include surgery, but should employ other modalities (chemotherapy and/or radiation therapy). Based on prior review of CP3R measure for 2010-2012, compliance with this guideline at Parkridge Medical Center (PMC) appeared to be low. In the past, all lung cancer cases were not necessarily discussed at Tumor Board. During the past year, a specific lung Tumor Board has been established at PMC in an effort to prospectively review all new lung cancer diagnoses and provide multidisciplinary input into the patient care plan. This study will determine whether patients with N2 lung cancer were treated according to NCCN guidelines.

Methods: All lung cancer cases (non-small cell and small cell) entered into the PMC Tumor Registry for 2014 were identified. Registry abstract data was pulled and displayed in a spread sheet for direct review. There were a total of 126 lung cancer cases in 2014. Thirty-one of these cases were classified as having clinical N2 disease. Seventeen of these cases were classified as Stage IV, meaning they had N2M1 distant metastatic disease; these cases were not included in the analysis. Treatment for Stage IV disease is considered palliative only, and treatment guidelines are different in the metastatic setting. This left fourteen cases with N2M0 lung cancer for analysis.

Abstract summary from the Tumor Registry listed the clinical TNM status and clinical stage as well as pathologic TNM stage if available. Notation was made as to who performed the clinical staging (physician, Tumor Registrar, or combination of both). First course of treatment was documented and notes related to pathology and biopsy procedures were available. Treatment data was compared to NCCN guidelines. For non-small cell lung cancer Stage T1-4, N2 the NCCN recommendation is for definitive concurrent chemoradiation or in some circumstances induction chemotherapy and assessment for response. For small cell lung cancer, limited stage, therapy is based on performance status. For good performance status, recommendation is for concurrent chemoradiation. For poorer performance status, there are options for chemotherapy plus/minus radiation therapy.

Results: Of the fourteen cases of N2 lung cancer, twelve were Stage IIIA, one was Stage IIIB (T4N2M0), and one was unknown Stage (TxN2M0) due to absence of tumor size.

Histology of five of the cases was poorly differentiated neuroendocrine tumor, which falls under the treatment guidelines for small cell lung cancer. No information was available in the abstracted material regarding performance status. Two of these patients received chemotherapy only, one received radiation therapy only and one received concurrent chemoradiation. First course of therapy was not recorded for one patient.

Histology showed adenocarcinoma in three cases and squamous cell carcinoma in three cases. These fall under the treatment guidelines for non-small cell lung cancer. The three patients with adenocarcinoma underwent concurrent chemoradiation. One patient with squamous cell carcinoma underwent chemotherapy only, one patient received radiation therapy only, and for one patient no treatment was recorded.

For three cases, no histology was recorded and no documentation of treatment was recorded.

Of these fourteen cases of N2 lung cancer, nine were clinically staged by the Tumor Registrar and five were clinically staged by a physician.

Summary: Based on available data, fourteen patients presenting to PMC in 2014 with N2 small cell and non-small cell lung cancer were treated according to NCCN guidelines. No patients underwent surgical therapy as part of their first course of treatment. All patients with poorly differentiated neuroendocrine tumor underwent appropriate therapy, presumably based on performance status. Patients with adenocarcinoma all underwent concurrent chemoradiation. Patients with squamous cell carcinoma had some variations in treatment, presumably due to individual factors governing recommendations for therapy. Treatment data was not recorded for five patients. It is not known whether they did not receive any treatment or whether treatment was rendered elsewhere. Clinical staging, as recorded in the Tumor Registry, was largely performed by the Tumor Registrar.

Recommendations: There are no areas of concern with regard to the first course of therapy for N2 lung cancer at PMC. Clinical staging is the best performed by the treating physicians and should be incorporated into the discussion during multidisciplinary Tumor Board.

Action: Verbal and written documentation of clinical stage during multidisciplinary Tumor Board at the time of case presentation.

Monitoring: No ongoing recommendation.



A map of the Nashville, Tennessee area showing the locations of the Sarah Cannon Cancer Center Network. The map includes major highways (I-24, I-40, I-65, I-75) and labels for several locations: Greenview*, Skyline, Hendersonville*, Centennial, Summit, Southern Hills, Stonecrest, Parkridge, and Parkridge East*. A legend at the bottom left indicates that locations marked with an asterisk (*) are SCCC Affiliated Medical Facilities. The text 'THE SARAH CANNON CANCER CENTER NETWORK' is overlaid in large blue letters across the center of the map.

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