

# 2015 Annual Report

*Containing 2014 Cancer Registry Statistics*



St. Anthony's Hospital



## St. Anthony's Hospital Cancer Committee – 2015

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St. Anthony's Hospital uses a multidisciplinary approach with a team of independent physicians to provide the highest personalized and coordinated care for our patients with cancer. We work to provide each patient with the benefit of expert consultation from multiple medical specialists and support services to ensure that treatment and survivorship plans will address the full range of patient needs.

### **Our Mission**

St. Anthony's Hospital will improve the health of all we serve through community-owned health care services that set the standard for high-quality, compassionate care.

### **Our Vision**

St. Anthony's Hospital will advance superior health care by providing an exceptional patient-centered experience with a focus on spiritual well-being.

### **Our Values**

The values of the St. Anthony's Hospital are trust, respect, and dignity and reflect our responsibility to achieve health care excellence for our communities.

St. Anthony's Hospital is accredited as a Community Hospital Comprehensive Cancer Program and maintains accreditation with the American College of Surgeons Commission on Cancer (CoC). The Susan S. McGillicuddy Breast Center is accredited by the National Accreditation Program for Breast Centers (NAPBC) and our imaging centers are accredited by the American College of Radiology (ACR).



## Cancer Liaison Physician's Report

**Robert Miller, MD**

Radiation Oncology, Cancer Liaison Physician



St. Anthony's Hospital Cancer Committee is proud to present the 2015 Annual Report, reflecting the collected cancer data from 2014. The Cancer Committee monitors and guides the cancer program to ensure our patients have access to state-of-the-art care in screening, diagnosis and the management of cancer consistent with standards of care using national standards (e.g. the National Comprehensive Cancer Network (NCCN ) Guidelines), and also comparing the clinical experience at St. Anthony's with state and national data (e.g. the NCDB database).

Reviewing the data, there has been further growth in the number of analytic cancer cases diagnosed and cared for by St. Anthony's. There is a disproportionate number of breast cancers and females in the database reflecting the success and impact of the Susan Sheppard McGillicuddy Breast Center, as well as the radiation center at St. Anthony's Hospital. St. Anthony's has the only inpatient radiation center in south Pinellas County. Lung cancer is higher than normal and prostate cancer lower than normal, reflecting patterns of care in the community and changes in PSA screening that have impacted the incidence of prostate cancer. Otherwise, the stage and distribution of cancer is similar to expected national data.

One surgical team working at St. Anthony's has particular expertise in naso-sinus malignancies and serves as a referral center, so we reviewed our experience with this otherwise rare disease of esthesioneuroblastoma of the nasal cavity, and conclusions from this study are included in the annual report, with an analysis by Dr. Donald Lanza.

The Cancer Committee will continue its commitment to patient monitoring and quality improvement activities and will strive to expand the care available to cancer patients in our community.





## Quality Assessment And Improvements

**Tim McMahon**

Cancer Care Program Director

St. Anthony's Hospital (SAH), as part of BayCare Health System, adopted a Quality Model in 1997 that guides the cancer program to consistently seek opportunities for improving clinical outcomes and the patient experience through a focus on process improvement. In 2015, the physicians and other members of the St. Anthony's Hospital Cancer Committee (SAHCC) identified several process improvement opportunities focused on the service, outcome and cost needs of our customers. Additionally, in 2015, BayCare continued to identify the patient-centered experience and providing one standard of care as key initiatives that will guide the SAHCC in the future.

A review of the St. Anthony's Hospital cancer registry shows breast cancer is a significant issue for the community. Breast cancer has been and continues to be the most prevalent cancer diagnosed and treated in the hospital. In addition to the emotional distress, patients treated for breast cancer have significant physical challenges as a result of the treatment they receive. In 2015, the SAHCC reviewed a number of opportunities to improve the rehabilitative care provided for breast cancer survivors and determined the Program Of Wellness, Empowerment and Recovery (POWER) program should be offered to all breast cancer patients. POWER focuses on the physical and emotional well-being of breast cancer survivors through a structured program of physical activity, emotional support and a focus on whole-body wellness. There are fees associated with the program not covered by insurance, so the SAH Foundation provided a grant so the program can be offered to all survivors on a sliding fee scale so cost is not a barrier to participation. Initial feedback from participants has been very favorable.

St. Anthony's Hospital participates in collaborative efforts with other cancer programs across BayCare in efforts to standardize care and improve the patient experience.

It was determined that many of the BayCare radiation centers were using different head immobilizing devices for delivering accurate radiation doses for treatment of head and neck cancers. While all devices were functioning adequately, the patient feedback was that some devices were more comfortable than others during these often lengthy daily treatments. The BayCare collaborative asked the St. Anthony's Cancer Center team to trial two options and elicit comments from patients about ease of use and comfort. In addition, the radiation oncologists were asked for feedback about ease of use and appropriateness. At the end of the trial, one manufacturer was selected and BayCare Purchasing Partners contracted with the vendor.

The SAHCC continues to provide feedback to the cancer program management regarding tools being considered for assessing patient's emotional distress and providing survivorship documentation for cancer patients receiving definitive treatment within one of the hospital's facilities. The SAHCC received information from the other BayCare cancer programs regarding their approach for meeting these standards. The decision was to pilot an emotional distress thermometer, modeled after the NCCN emotional distress tool. Additionally, the cancer program administrative team finalized a brochure that provided community services information to support the cancer patient's needs. Initially, the SAHCC approved use of the *Journey Forward* cancer survivorship tool; after some feedback from patients and nurses, it was decided to change to the ASCO survivorship template.

The SAHCC monitors indicators and improvements during Cancer Committee meetings. All St. Anthony's Hospital improvement activities are ultimately reported to the system President as well as the Board of Trustees through the Quality Leadership Task Force.

# 2014 Statistical Summary Report

Average Age Group at Diagnosis: 60–79 years of age  
Top Five Sites

St. Anthony's Hospital	Total	SAH	Florida	U.S.
Breast	308	27%	13.3%	14%
Colon	86	7.4%	8.7%	8.6%
Lung	194	17%	15.2%	13.7%
Lymphoma	49	4.2%	4.3%	4.2%
Bladder	72	4%	4.8%	4.4%

Figure 1

St. Anthony's Hospital 2014 Analytic and Non-Analytic Cases by System

	Total Cases	Male	Female
<b>All Sites</b>	<b>1,156</b>	<b>449</b>	<b>710</b>
Head and neck	45	35	10
Digestive system	228	112	116
Respiratory system	216	110	106
Blood and bone marrow and bone	37	17	20
Connect/soft tissue	6	3	3
Melanoma and other skin	31	24	7
Breast	308	3	305
Female genital	50	0	50
Male genital	47	47	0
Urinary system	78	50	28
Brain and CNS	25	9	16
Endocrine	29	10	19
Lymphatics	47	22	25
Unknown primary/ill-defined	12	7	5

Figure 2

Comparison NCDB vs. SAH by Stage at Diagnosis

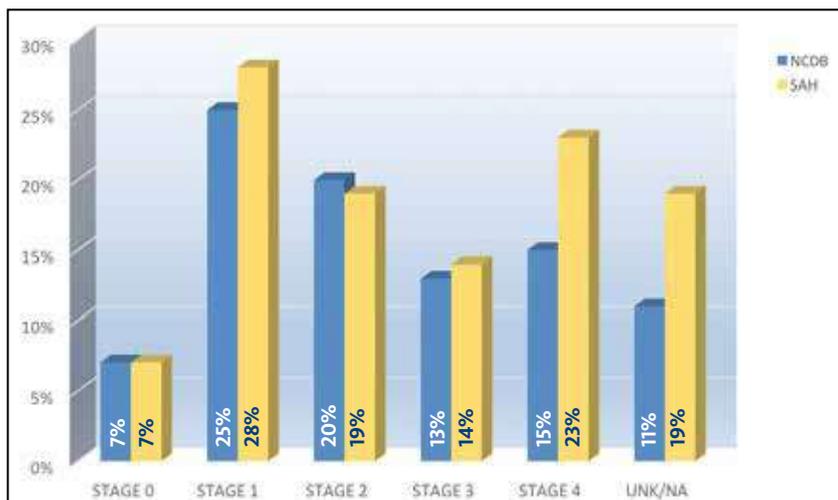


Figure 3

**Comparison by Stage (Figure 3)**  
The comparison is of all newly diagnosed cancers accessioned into the registry at St. Anthony's Hospital during 2014 and all newly diagnosed cancers across the U.S. from 2003 through 2013, (the latest published statistics) reported to the National Cancer Data Base. When making the comparison of percentages there is not a great deal of difference. The expected higher percentage of early stage cases can be attributed to catching our breast cancer cases at an early stage, thanks in part to our ability to screen for early detection. Stage 4 disease remains basically high from year to year, in part due to the late stage at presentation of lung cancer treated in our radiation center.

2015	Totals	15% Required	COC Compliance
Total cancer conferences	49		Compliant
Total prospective cases discussed	184/1,156	16%	Compliant

Figure 4

Please Rate the Impact of the Following Objectives	Strongly Agree	Agree	Neutral
Ability to discuss current cancer cases	73%	27%	
Understand available literature and resources	67%	33%	
Ability to discuss multidisciplinary treatment plans	60%	33%	7%
Please Rate the Projected Impact of This Activity	Yes	No	No change
Increased competency	93%		7%
Increased knowledge	80%		20%
Improved performance	93%		7%
Improved patient outcomes	67%		3%
Identify Changes as a Result of Attendance	# Physicians		
Activity validated my current practice	10		67%
Create/revise protocols, policies and procedures	2		13%
Change management or treatment of my patients	3		20%
Total Responding Physicians	15		100%
Improvement in Format of Activity and Content - Comments From Attendees	# Physicians		
Format was appropriate, no change needed	12		80%
Increase interactivity with attendees	1		<7%
Include more case-based presentations	1		<7%
Increase attendance	1		<7%
Total Responding Physicians	15		100%

Figure 5

**2015 Cancer Conferences (Tumor Boards) (Figure 4)**  
 Barring holidays, a weekly multidisciplinary team of physicians meet in the Cancer Center to discuss the treatment planning for difficult or unusual cancer cases currently under their care. This forum is beneficial to both the patient and the physician and is important in determining the extent (stage) of disease and treatment planning which includes treatment guidelines approved by the National Comprehensive Cancer Network (NCCN), the national guidelines adopted by the St Anthony's Cancer Committee. NCCN offers a number of programs to give clinicians access to tools and knowledge that can help guide decision making in the management of cancer.

The multidisciplinary team of physicians includes:

- Medical Oncology
- Diagnostic Radiology
- Radiation Oncology
- Surgery
- Pathology

**CME Through Medical Staff Office – Physician Satisfaction (Figure 5)**

Cancer conferences also provide an opportunity for physicians to obtain continuing medical education hours toward licensing, provided through the Medical Staff office. Several times a year, the Medical Staff office conducts an evaluation of the meetings to ensure that the cancer conferences are meeting the physician's needs. See Figure 5 for the evaluation results.



<b>Image or palpation-guided needle biopsy is performed to establish diagnosis</b>	<b>92%</b>
<b>Greater than 50 percent of stage 1-2 women undergo breast conservation surgery</b>	<b>63%</b>
<b>Estrogen receptor-positive women begin hormone therapy within 365 days</b>	<b>94%</b>
<b>Radiation administration for greater than four positive lymph nodes following mastectomy</b>	<b>81%</b>
<b>Combination radiation is administered within 120 days stage 1B-3 ER negative patients</b>	<b>95%</b>

Figure 6

**Focus on Quality (Figure 6)**  
 As part of the accreditation process, the Commission on Cancer requires St. Anthony's Hospital to monitor and comply with measures that relate to the quality of care. As can be seen in Figure 6, St. Anthony's Hospital meets or exceeds these benchmarks, 2013 cases (latest published).



## Achievement of Clinical and Programmatic Goals For 2015

### Programmatic Goal

Following breast cancer surgery, quite a few patients battle with lymphedema and limited movement of the upper body. For these patients, through the Physical Therapy department, a Prevention, Outreach, Wellness, Education and Risk Reduction (POWER) program was undertaken. These patients are referred to the program through their treating physician. During 2015, there were 26 patients referred to the program and 16 enrolled and completed the course. A generous grant from the St. Anthony's Hospital Foundation was given to assist those in need to take part in this program.

### Clinical Goal

With the comfort of the patient in mind and in order to give them the best quality care possible during radiation therapy, in 2015 the Radiation Department implemented the goal of researching different types of material and systems for use and comfort with head and neck immobilization during radiation treatment for the head and neck cancer patient. Once successfully finding the better masking system, approval was sought for and given. The new system is set for implementation in 2016.



## Patient Care Evaluation Study

### Esthesioneuroblastoma (ENB) of the Nasal Cavity at St Anthony's Hospital

2006 Through 2014 with Survival Data

- **Purpose:** Study those St. Anthony's Hospital patients diagnosed with esthesioneuroblastoma of the nasal cavity from 2006 through 2014 in an effort to ensure that they had the best possible care in accordance with the NCCN Treatment Guidelines, and to comply with the American College of Surgeons Commission on Cancer (CoC) Standard 4.7, with plans for improvement in quality of care should any be needed.
- **Introduction:** Esthesioneuroblastomas (ENB) are a rare form of cancer of the nasal cavity. Based on the reports in the current literature, approximately only 1,200 cases of ENB have been identified since 1924 across the United States. Interestingly, 80 percent of these have been identified in the last 25 years. Here at St Anthony's Hospital, we had 13 cases diagnosed and/or treated by a dedicated otolaryngologist between 2006 and 2014.
- **Method:** The data on patients with ENB or olfactory neuroblastomas of the nasal cavity were gathered from the St. Anthony's Hospital Cancer Registry for the years 2006 through 2014. All patients had been treated by the same dedicated otolaryngologist/surgeon with some additional adjuvant treatment data gathered from his practice notes. All charts were reviewed for the same criteria and the results are reported below.

#### Findings

- **Histology:** These tumors of the nasal cavity are either commonly called olfactory neuroblastomas or ENB and, according to the International Classification of Diseases for Oncology, are considered malignant in behavior and are reportable to Center for Disease Control by the Cancer Registry. The prognosis depends on the magnitude of the disease on initial diagnosis. It should be noted that precise histologic diagnosis is difficult because ENB's are often confused with other small round cell neoplasms of the nasal cavity.



■ **Age, sex and race:** According to current reported literature, ENBs do not show any predilection toward any individual sex or race, and diagnoses occurs in a wide range of age groups; however, there does appear to be a bimodal peak occurrence in the third and sixth decade of life. Even with the small number in this study, the same conclusion is supported from the data at St. Anthony’s Hospital where one patient presented in the pediatric age range, a young male age 16. There was also one male who presented in the 80 plus age group. Three patients presented in the 20-39 age group and three in the 60-79 age group. The majority with six cases (46.1 percent) were in the 40-59 age group. Likewise, with regard to gender, we had a total of seven males and six females and we found no predominance in race.



■ **Presenting symptoms:** Presenting symptoms can include a unilateral polyp, decreased or lack of ability to smell and taste, headache, nausea, and in some rare cases, facial swelling. However, according to current literature, the presenting symptoms in 70 percent of patients is nasal obstruction and in 46 percent they had epistaxis and/or discharge. Nasal obstruction was the predominant presenting symptom (76 percent) in the 13 SAH patients, with a discolored discharge in 15 percent. See the table below for presenting symptoms.

Patients	1	2	3	4	5	6	7	8	9	10	11	12	13
Nasal blockage	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓
Hoarseness			✓										
Facial pressure												✓	
Chronic rhinosinusitis					✓								
Loss of smell or taste							✓					✓	
Discolored nasal drainage								✓					✓

■ Stage and grading: Staging and grading is different for the olfactory neuroblastoma than other cancer sites and, although often AJCC staging for the head and neck is used as a “working stage” for these patients, there is actually no AJCC staging schema for ENB or olfactory neuroblastomas. The staging system used for these type of cancers is known as the Kadish system, which uses the following:

- Group A: Tumor is limited to the nasal cavity
- Group B: Tumor is limited to the nasal cavity and paranasal sinuses
- Group C: Tumor extends beyond the nasal cavity and paranasal sinuses:
  - Intracranial compartment
  - Orbit
  - Distant metastatic disease
- Group D: Cervical nodal metastases (newly proposed)



Hyams histologic grading system is a promising prognostication tool that offers an added value to staging in predicting long-term survival of the patient. In our study, 61 percent (8/13) of patients had Kadish C staging, 31 percent or 4/13 had Kadish B staging and 8 percent (1/13) had Kadish A staging. As seen below, only one SAH case had an unknown grade.

Patients	1	2	3	4	5	6	7	8	9	10	11	12	13	%
<b>Kadish Stage</b>														
<b>A</b>												✓		<b>8%</b>
<b>B</b>	✓		✓				✓		✓					<b>31%</b>
<b>C</b>		✓		✓	✓	✓		✓		✓	✓		✓	<b>61%</b>
<b>D</b>														<b>0%</b>
<b>Hyams Grade</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>?</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	

■ Treatment: Due to the rarity and complexity of ENB, there exists considerable heterogeneity in treatment. Complete surgical resection of the tumor followed by radiation therapy is recognized by most studies as the optimal treatment. However, some institutions report success with alternative treatment sequences, including surgery without radiation. More recently, chemotherapy has been introduced into the therapeutic repository. Unlike most surgical specimens from the head and neck, those from the nasal cavity and paranasal sinuses, even the very rare en bloc, are difficult to orient, and surgical margins are difficult to analyze. So, because one can rarely be completely confident of the adequacy of surgical margins, postoperative radiation to minimize the risk of local recurrence seems justified in almost all patients. Several institutions have reported that intensity-modulated radiotherapy can provide good local control with low rates of radiation-induced toxicity, in children as well as in adults. The following table shows the treatment either single modality or combined modalities on all 13 SAH patients with intraoperative procedures along with reconstruction. No patients had a lapse in their radiation treatments and only one did not receive radiation to the neck, but had neck dissection instead.

■ Postoperative procedures, recurrence and changes: Due to the relatively high rate of neck involvement at presentation, follow-up surveillance with a PET/CT is routinely obtained to evaluate for occult metastasis or recurring disease. The table below shows the 13 patients at SAH with surveillance imaging and recurrence either locally, regionally or distal, and the treatment for any recurrence. It also shows postsurgical changes that the patient did experience.





Patients	1	2	3	4	5	6	7	8	9	10	11	12	13
Endoscopic resection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Skull base reconstruction		✓	✓			✓	✓		✓		✓		
Intraoperative CSF leak			✓			✓	✓		✓		✓		
Lumbar drain placement		✓	✓	✓			✓				✓		✓
Craniotomy performed		✓			✓			✓		✓			✓
Radiation therapy:													
Proton beam													
To ethmoid	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
To neck	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
Chemotherapy		✓	✓	✓	✓		✓	✓		✓	✓		✓
Postoperative MRI/PET	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Recurrence:													
Local													
Regional					✓			✓					
Distal		✓			✓			✓					
Epiphora		✓	✓	✓	✓		✓	✓	✓	✓	✓		✓
Sino-nasal changes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bone exposure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Seizures								✓		✓	✓		
Encephalomalacia		✓	✓	✓			✓			✓	✓		✓
Eye brow loss				✓									
Treatment for mets:													
Chemotherapy			✓					✓					
Surgery					✓								
Radiation								✓					
Days from diagnosis to surgery	7	5	12	6	13	13	54	3	15	1	10	14	8
Days from surgery to radiation therapy	54	84	44	41	77	N/A	77	83	49	126	43	61	40

■ Survival: Time delay from presentation to surgery and from surgery to radiation and chemotherapy are very important to the survival of the patient. Most institutions favor surgery as the first mode of treatment followed by postoperative irradiation. Despite the difficulties associated with the treatment of ENB, evolving treatment modalities (including surgery) with radiation and adjuvant chemotherapy have contributed to the better management and increased survival of ENB patients. With our 13 patients:

- The days from diagnosis to surgery ranged from one day to 54 days
- The days from surgery to radiation therapy ranged from 41 days to 126 days

The table below shows the year of diagnosis and the graph shows the months of overall survival from the date of diagnosis until the date of last contact of surviving patients during 2015 or expiration which ever came first.

	1	2	3	4	Expired	5	6	7	Expired	8	9	10	11	12	13
Dx year	2014	2010	2008	2010	2009	2014	2008	2012	2013	2007	2012	2009	2011	2009	2011
Surv months	6	61	79	66	15	6	77	8	20	91	43	65	47	65	47



■ Conclusion: Esthesioneuroblastoma (ENB) patients diagnosed and treated at St. Anthony’s Hospital have undergone appropriate treatment with surgery and, where expected, radiation has followed. All living patients continue appropriate follow-up surveillance due to the high risk of recurrent disease in this type of cancer.

Donald C. Lanza, MD, Otolaryngology



St. Anthony's Hospital