Cancer Report 2012

Using Statistical Data from 2011

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Cancer Committee — Chairman's Report

St. Anthony's Hospital Cancer Committee is proud to present the 2012 Annual Cancer Report, reflecting the collected data from 2011 cancer statistics. The Cancer Committee monitors and guides the cancer program to ensure that our patients receive the highest standards of care in the diagnosis and treatment of their malignancies.

In 2011, there were 854 new cases of cancer diagnosed and/or treated at St. Anthony's Hospital. Fifty-one percent of these patients were both diagnosed and received their first course of treatment at St. Anthony's Hospital, 26 percent came from other facilities to continue first course of treatment at St. Anthony's Hospital, while 23 percent of the newly diagnosed cases were too ill for further treatment, declined treatment and/or decided to seek treatment at another institution. During 2011, the top five most common sites diagnosed and/or treated at St. Anthony's Hospital were breast at 29 percent, lung at 13 percent, colorectal at 10 percent, prostate at 7 percent and lymphoma at 4 percent.

Quality improvement standards and goals were established with collaborative efforts between the St. Anthony's NAPBC-accredited Breast Program Leadership Committee and St. Anthony's Hospital Cancer Committee. One study identified that 51 percent of the breast cancer patients who had positive biopsy findings went on to have an MRI with outcomes that changed the planned surgical treatment of their cancer. Another study to evaluate the care of the prostate cancer patient in the years 2006 through 2011, showed that the robotic-assisted prostate surgery, which allows for a shorter stay and less postoperative complications, had gone from zero in 2006 to 63 percent of all prostatectomies being robotic in 2011.

In 2012, St. Anthony's Hospital continued weekly Breast Cancer Conferences as well as weekly General Tumor Board Conferences with both NCCN guidelines and staging being discussed for each case to ensure expeditious review of cases to obtain multidisciplinary input directly influencing treatment planning and management of each patient's quality care. There were a total of 123 breast cancer cases presented for discussion during 2012, and in the general site conference, a total of 219 cases were presented. The attendance of the required multiple disciplines remained high at above 80 percent.

Clinical goals included the ability to offer high-dose rate (HDR) radiation for GYN cancers, affording the St. Anthony's patient the option of this type of radiation treatment much closer to home. The ability to offer our patients who are at high risk for lymphedema is another service that has been studied and is going ahead through the Rehabilitation Department.

Along with dedication of the Breast Program Leadership, the St. Anthony's Cancer Committee has seen further growth in our high-quality cancer programs that contribute to the successful outcomes for patients treated at this hospital. The Cancer Committee will continue its commitment to patient monitoring and quality improvement activities and strive to expand the care available to cancer patients in our community.

Michael Diaz, MD
Chairman Cancer Committee

Quality Assessment and Improvements

There were a number of key initiatives and improvements identified by the physician members of the St. Anthony's Hospital Cancer Committee (SAHCC). These opportunities were focused on improvement in service, outcome and cost indicators as defined by our customers. The Committee recognizes that our objective is to provide a superior customer experience by meeting or exceeding their needs and expectations of each customer. At St. Anthony's Hospital (SAH), this is achieved through looking for ways to continually improve the cancer care process, one patient and one caregiver at a time.

The SAH reporting system for quality assessment and improvement is known as Team MAP. The process includes the following steps:

- Select indicators to monitor
- Monitor these indicators and identify improvement opportunities
- Prioritize processes to be improved, focusing on Service, Outcome and Cost
- Take action to improve the process
- Evaluate the impact the process change has on customer needs through a pilot program
- Implement process changes systemwide which demonstrate positive impact on customer service, improved outcomes and reduced cost

In 2012, the SAHCC focused on providing improved customer service and ancillary services that should improve clinical outcomes. One such service is the opening of the BayCare Esoteric Laboratory, allowing for some of the molecular testing (i.e. FISH – Her2Neu assay) that once required being sent out to a reference laboratory. This reduces the time that results are available by two to three days on average. It also reduces the overall expense per test as well.

Additional clinical improvements include the purchase of applicators for the high-dose rate unit (HDR) that allow for patients to receive radiation boosts to the cervix after completion of their external beam radiation treatments. In the past, patients requiring cervical cancer radiation boosts would be referred to Morton Plant Hospital for this procedure. This option left many patients who live in St. Petersburg less than satisfied due to the inconvenient drive.

The SAHCC also considered new clinical services presented by physicians and other members of the cancer care team. Hyperthermic peritoneal chemotherapy has shown both a symptom management and overall survival advantage for some patients. This palliative treatment is beneficial for patients who have peritoneal spread of cancer. After surgical debulking, heated chemotherapy is instilled in the operating room for a specified period of time. This clinical treatment was still being considered at the end of 2012. Another clinical treatment being considered through the rehabilitative services is use of the L-DEX system to identify patients at risk for developing lymphedema and beginning early intervention to either delay or prevent the edema. This device was strongly supported by the SAHCC and will be submitted for 2013 capital purchasing consideration.

The SAHCC monitors indictors and improvements during Cancer Committee meetings. All SAH improvement activities are ultimately reported to the system President as well as the Board of Trustees through the Quality Leadership Task Force.

Tim McMahon
Cancer Program Administrator

2011 Statistical Summary

Incidence: In 2011, there were 854 new cancer cases and 176 cases with recurrent or metastatic cancer from cases diagnosed and treated elsewhere (non-analytic). Figure 1 depicts the annual new accessions (patients) in St. Anthony's over the last 10 years.

Class of Case: During 2011, the registry continued to adjust to the new coding processes put in place with the changes of Class of Case made in 2010. Only analytic cases are reported to the Commission on Cancer. ***Class 00***, although not followed for survival data, are reportable to the CoC as analytic cases, and consist of patients diagnosed at St. Anthony's Hospital; the registry has documentation of where they have gone for further treatment. In 2011, we had 199 or 23.3 percent of class 00 cases. ***Class 10-14*** are cases that have been diagnosed and/or treated at St. Anthony's Hospital or the decision of no further cancer treatment was made at our facility. For 2011, there were 431 or 50.4 percent cases in the class 10-14 category. ***Class 20-22*** are cases that have been diagnosed elsewhere and come to SAH for treatment or St. Anthony's was involved in the diagnosing process, and/or the decision was made for treatment with palliative comfort measures only. In the 20-22 class of cases for 2011, there were 224 or 26.2 percent of the total cases (see figures 2 and 3).

Top Five Primary Cancer Sites at SAH During 2011: The top five most frequently occurring cancers at St. Anthony's Hospital during 2011 were breast, totaling 248 or 29 percent of the annual caseload, lung cases totaled 142 (13 percent), prostate 56 (7 percent), colorectal 58 (10 percent) and lymphatics totaling 28 or 4 percent of our total analytic caseload. This can be compared to the American Cancer Society National Data of breast at 14.4 percent, lung at 13.8 percent, prostate at 15 percent, colorectal at 9 percent and lymphatics at 4 percent (see figure 4).

Figure 1. 2002–2011 Incidence of New Cancer *(10 Year Period)*

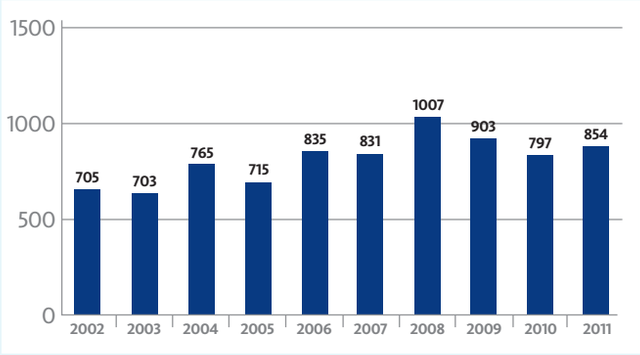


Figure 2. Class of Case

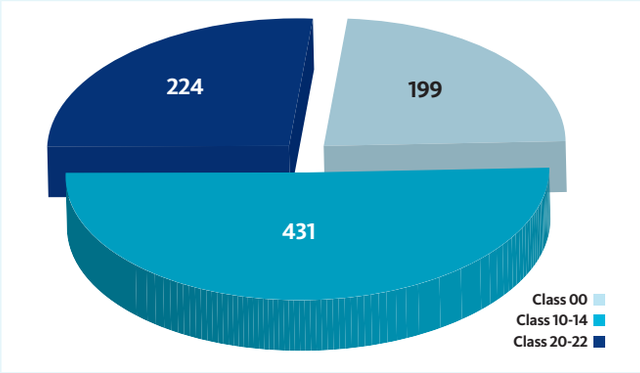


Figure 3. Class of Case

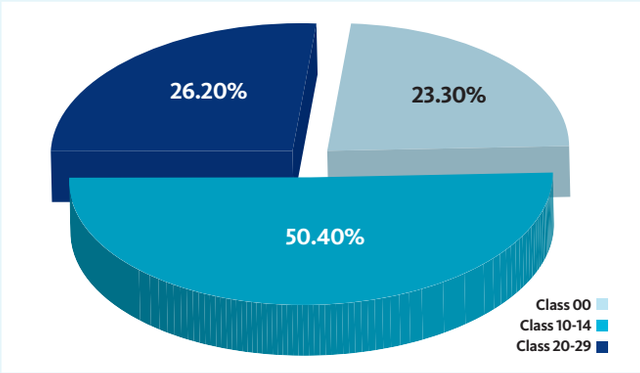
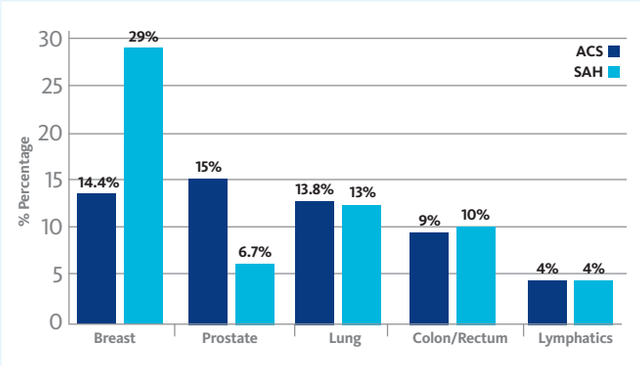


Figure 4. Top Five Cancer Sites Comparison
(St.Anthony's vs American Cancer Society)



Analytic and Non-Analytic Cases During 2011

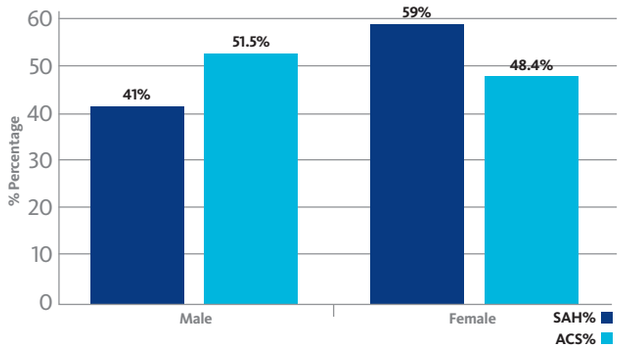
All primary site distribution by gender are shown in Table 1.

Primary Site	Total	Male	Female
All Sites	**854**	**346**	**507**
Oral Cavity	40	29	11
Tongue	16	13	3
Hypopharynx	2	1	1
Other	22	15	7
Digestive System	151	88	63
Esophagus	5	4	1
Stomach	6	4	2
Colon	58	32	26
Rectum	32	21	11
Anus/Anal Canal	6	3	3
Liver	15	11	4
Pancreas	23	10	13
Other	6	3	3
Respiratory System	126	63	63
Nasal/Sinus	9	5	4
Larynx	10	6	4
Lung/Bronchus	107	52	55
Blood and Bone Marrow and Bone	12	10	2
Leukemia	6	5	1
Multiple Myeloma	2	2	0
Other	4	3	1
Connect/Soft Tissue	6	6	0
Melanoma and Other Skin	33	17	16
Breast	248	4	244
Female Genital	40	0	40
Cervix Uteri	2	0	2
Corpus Uteri	29	0	29
Ovary	8	0	8
Vulva	1	0	1
Other	1	0	1
Male Genital	62	62	0
Prostate	56	56	0
Testis	5	5	0
Other	1	1	0
Urinary System	47	33	14
Bladder	27	19	8
Kidney/Renal	19	14	5
Other	1	1	0
Brain and CNS	27	9	18
Brain (Benign)	3	0	3
Brain (Malignant)	8	4	4
Other/Meninges	16	5	11
Endocrine	19	7	12
Thyroid	16	5	11
Other	3	2	1
Non-Hodgkin/Lymph System	28	9	19
Hodgkin/Lymph System	4	4	2
Unknown Primary/Ill-Defined	10	7	3

Table 1

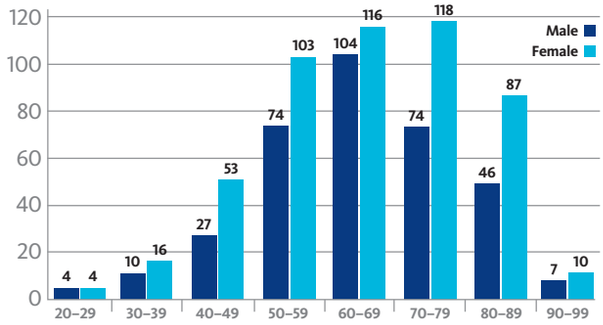
Demographics: Data from American Cancer *Society Facts and Figures for 2011* estimated that there will be over 1,596,670 new cancer cases reported in the U.S. with 113,400 new cases from Florida alone. At SAH, the data on distribution of cancer by gender was 346 for males or 41 percent, and for females 507 or 59 percent. When compared to the ASC percentage, St Anthony's has a greater percentage of female than male, but this certainly would be correct given the fact that over a third of our cases are breast cases, with the Susan McGillicuddy Breast Center attracting a larger female population (figure 5).

Figure 5. Age and Sex Distribution 2011 Cases SAH



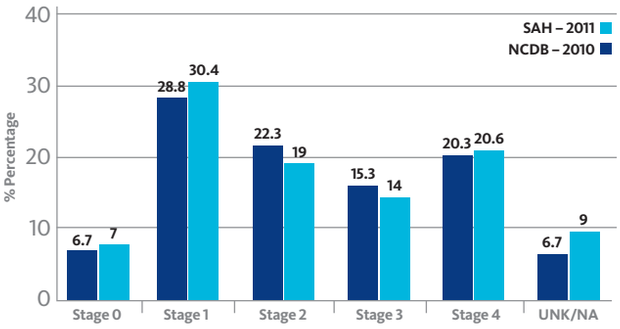
Age at Diagnosis: According to the American Cancer Society *Facts and Figures for 2011*, the median age for developing cancer is 67 years of age and the probability by gender of developing cancer of any site is one in every two males and one every three females. At St. Anthony's Hospital, the greatest number of females fell in the 70-79 age group with 118 or 14 percent of the 2011 caseload. However, the greatest number of males fell in the 60–69 age group with 104 or 12.1 percent of the total 2011 caseload.

Figure 6. Age and Sex Distribution 2011 Cases SAH



Stage at Diagnosis: During 2011, the St. Anthony's Cancer Registry recorded 7 percent stage 0, 30.4 percent stage 1 and 19 percent stage 2 cancers. For stage 3, there were 14 percent and for stage 4 there were 20.6 percent. Again, St. Anthony's has that high stage 4 total of cancers, due to the ability for us to treat lung cancers in our radiation center and lung is one of those sites of cancer that presents in an advanced late stage. When comparing the 2010 *stage-at-diagnosis* with the 2011 data, there is not a great deal of difference in the percentages; the majority of stage 1 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. The *stage-at-diagnosis* for stage 4 disease remains basically high from year to year, again due to the late stage of lung cancer at presentation.

Figure 7. Stage at Diagnosis *(NCDB 2010 Data vs. SAH 2011 Data)*



One of those sites that have no staging schema is brain, and since the Centers for Disease Control has deemed it mandatory that the registry collect both benign brain and malignant brain masses, there will always be a percentage of our cases that have no staging whatsoever, and in 2011, 9 percent of our cases fell into this category. Comparison with the National Cancer Data Base (NCDB), 2010 stage-at-diagnosis is given below. Only 2010 data can be used from NCDB as that is the latest staging data published, but it gives us a window into percentages of staging at presentation across the nation.

Patient Care Evaluation Study 2012

Prostate Cancer at St Anthony's Hospital: 2006–11
Survival Data Comparison with NCDB 2003–06 Data

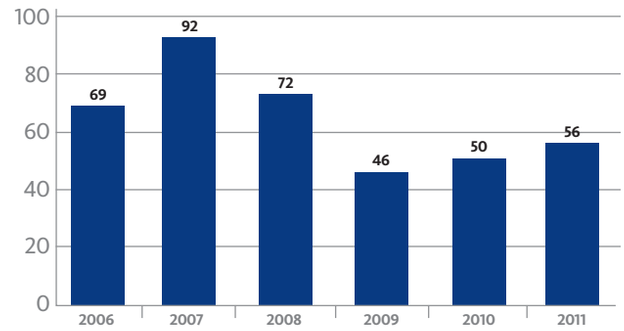
Purpose: In accordance with the American College of Surgeon's, Commission on Cancer, Cancer Care Programs Accreditation, the Cancer Committee at St. Anthony's Hospital requested that the registry prepare a study on prostate cancer to include the years 2006 through 2011 with survival data from 2003 through 2006 to be compared with the NCDB (most current) data with focus on quality of care and outcome data.

Method: The Cancer Registry gathered data from analytic cases only. Class 00 through class 24 make up the analytic class of cases - class of case 10 through 14 are cases diagnosed and/or treated at St. Anthony's Hospital and class of case 20 through 24 are cases already diagnosed elsewhere when the patient entered our facility but treatment, either surgical, hormonal or radiation therapy is administered at St. Anthony's Hospital. No recurring cases (class 30 through 32) or consulting cases were included in this data. Class 00, though still counted as analytic cases in the CoC data, are those cases diagnosed at St Anthony's Hospital but are receiving their treatment at another facility. Class 00 were included in the overall percentages, but were excluded from the treatment statistics in this study.

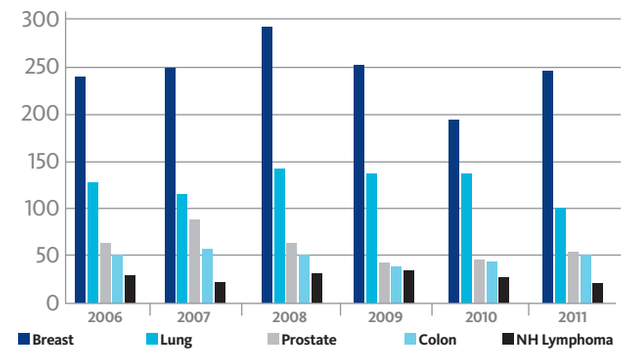
Findings:

- **Incidence:** During the years 2006 through 2011, there were 385 incidences of newly diagnosed and/or treated prostate cancers at St. Anthony's Hospital. Prostate is one of the five top incidences of cancer diagnosed and/or treated at St. Anthony's Hospital during the last 10 years. Data was gathered on a total of 385 analytic prostate cancer cases entered into the registry during the years 2006 through 2011. The American Cancer Society has published a comparison graph showing the top most prevalent sites of cancer diagnosed during 2011 nationally, that of Florida and those of St. Anthony's Hospital and prostate cancer is third only to breast and lung cancer which confirms what the SAH registry data shows for 2006 through 2011 in the graphs below.

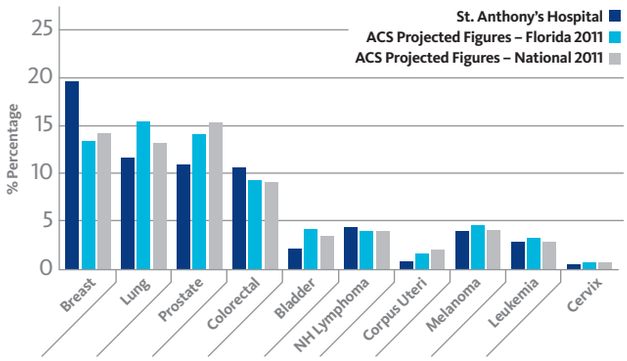
Prostate Cancer Cases at St. Anthony's Hospital: 2006–2011



Comparison Top Five Sites St. Anthony's Hospital: 2006–2011



Ten Most Prevalent Cancer Sites – 2011



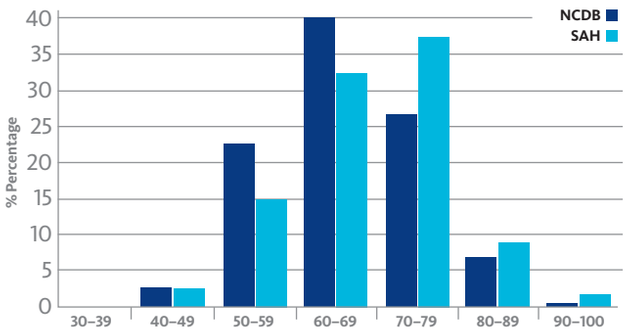
- **Age:** A comparison was made with the NCDB data reported over the last 10 years, 2001 through 2011, nationally and with St. Anthony's Hospital during the same period of time and the majority of our patients fall into the same 60-69 and 70-79 age categories.

- **Stage:** Staging of any cancer is necessary for treatment planning and according to the AJCC Staging manual, 7th edition, prostate cancer has a tendency to metastasize to the bone, but early detection is possible with the blood test of prostatic specific antigen (PSA). However, the diagnosis is usually made using a transrectal ultrasound (TRUS) guided biopsy. The incidence of both clinical and latent carcinoma increases with age and this cancer is rarely diagnosed clinically in men under 40 years of age. Diagnosis of a clinically suspicious area of prostate enlargement can be confirmed histologically by needle biopsy usually with at least 12 cores of tissue taken from each quadrant of the prostate gland. Less commonly, prostate cancer may be diagnosed by inspection of the resected tissue from a transurethral resection of the prostate for obstructive voiding symptoms. TNM staging has limitations especially for organ confined prostate cancer, and for this reason prognostic factors such as clinical stage, pretreatment serum PSA and Gleason score have been included in the stage groupings for final treatment planning.

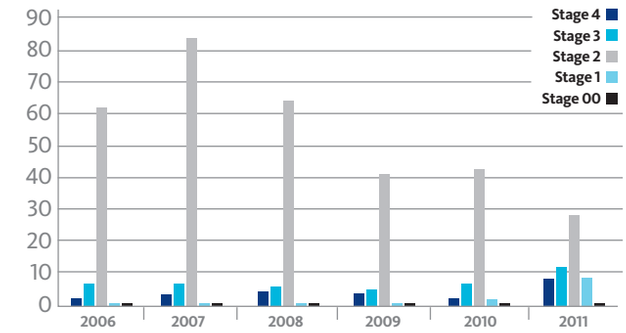
  As can be seen in the graph above, most patients at St. Anthony's Hospital present at diagnosis with stage 2, usually found by rising PSA, prompting a core needle biopsy.

- **Treatment:** With the exclusion of class 00, there were a total of 374 analytic cases studied for treatment outcomes. Treatment for prostate cancer consists of a variety of treatment options with hormones, radiation therapy and surgery, either alone or in various combinations. In some cases, depending on the nonaggressive nature of the disease, the physician may opt for a wait-and-watch approach to therapy during which time the PSA would be monitored closely for any increase in PSA value.

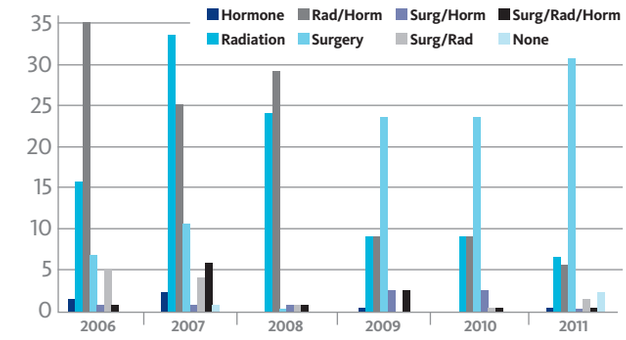
St. Anthony's Hospital vs. NCSB Prostate by Age (2001–2011)



Prostate Cancer by Stage at St. Anthony's Hospital (2006–2011)



Prostate Cancer with Treatment (2006–2011)



Surgery: Of the 159 patients who had surgery there were 28 who had transurethral resection of the prostate (TURP) with biopsy for diagnostic purposes and to relieve symptoms. Prior to 2008, radical retropubic prostatectomy with removal of the prostate gland through an incision in the abdomen was the main surgical procedure for disease control or eradication. This surgical procedure changed at St. Anthony's in 2008 with the introduction of da Vinci robot-assisted surgery with the following advantages to the prostate cancer patient:

- More precise removal of the cancerous tissue
- The ability for greater nerve sparing surgery
- Faster return to normal sexual and urinary function
- Less blood loss
- Less risk of wound infection and complications

Year	Routine	Robot- Assisted
2006	16	0
2007	15	0
2008	15	14
2009	10	11
2010	9	16
2011	12	21
TOTAL	**77**	**62**

Survival: When comparing survival rates, we looked at the prostate cancer patients between the years 2003 and 2006 which is the latest available data published by the National Cancer Data Base (NCDB). For this study we looked at survival data for stage 2 cases of prostate cancer. Stage 0, 1, 3 and 4 were negligible in total caseload and were not considered large enough to use in the survival study. The majority of prostate cancer patients fell into the stage 2 category (155) and these were compared to the NCDB data of the same stage. The patients at St. Anthony's had an 88 percent survival rate at the end of the first 12 months, but fell to 42.7 percent at the 60-month mark. The NCDB data showed stage 2 patients with a 97.6 percent survival rate at the end of the first 12 months, and by the 60th month they had a survival rate of 87.9 percent. Keeping in mind the aging population of the St. Anthony's patient at diagnosis with a median age of 70 and the probability of a variety of accompanying comorbid conditions, this would explain the difference in survival data by the 60th month between the St. Anthony's patient and the National Cancer Data Base.

Conclusion: In general, patients diagnosed with prostate cancer at St. Anthony's Hospital present in the early stages of the disease resulting in overall favorable outcomes. This study did not demonstrate the need for any changes in the diagnosis and treatment of prostate cancer at our hospital.

Respectfully submitted,

Eric Katz Diner, MD
Urologic Surgeon

2012 Oncology Committee Members

St. Anthony's Hospital Cancer Registry

Michael Diaz, MD	Cancer Committee Chairman/Medical Oncology
Ron Colaguori	Administration/Cancer Committee Advisor
Tim McMahon	Cancer Program Administrator
Derrick Cox, MD	Cancer Physician Liaison/Surgeon
Daniel Saenz, MD	Pathology
Claudia Bundschu, MD	Diagnostic Radiology
Corey Evans, MD	Pain Control/Palliative Care
Rosalie Conner, RN	Oncology Nursing
Laurie Dobler	Community Outreach
Mary Gardner, RN	Nurse Education
Dinah Merrill, CTR	Certified Tumor Registrar
Francis Brown, RD	Dietary Services
Robert Miller, MD	Radiation Oncology
Rev. Al Hall	Psychosocial/Pastoral Care
Cindy Crisci	American Cancer Society Representative

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.

Vision

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

Values

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

Notes

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