

Cancer Report 2009

Using Statistical Data From 2008



Cancer Committee - Chairman's Report

St. Anthony's Hospital Cancer Committee is proud to present the 2009 Annual Cancer Report, reflecting the collected data from 2008. The Cancer Committee monitors and guides the cancer program to ensure that our patients have access to the highest standards of care in both the diagnosis and management of cancer.

This year's data reflects on another very successful year, with increased growth in the program and record number of analytic cases (996), which represents a significant change from the last few years (829 in 2006 and 786 in 2007). Susan Sheppard McGillicuddy Breast Center has become an increasingly important community resource and led to a record number of women diagnosed with breast cancer in 2008. A patient care evaluation of the breast cases diagnosed demonstrated that a great majority of women are being diagnosed at an early stage (79 percent are either Stage 0, I or IIa).

There has been further growth in the activity of the tumor boards, which provide patients with a multidisciplinary evaluation of their case. With the addition of a bimonthly breast cancer tumor board, the number of tumor boards has increased from 21 to 33 per year, and more than 11.5 percent of all cases have been discussed at these conferences, exceeding the goals set by the Commission on Cancer.

Further development in electronic charting has facilitated the work of the Cancer Registry in achieving high standards in abstracting and follow-up of the patients seen at this hospital, with greater than 90 percent follow-up and 94 percent of cases abstracted within six months of first contact. Detailed physician review of the quality of registry data has shown a very high accuracy rate.

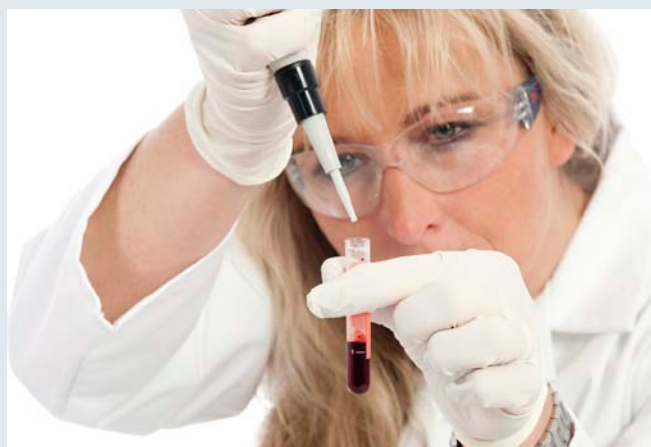
The Cancer Committee has worked hard to educate and promote the accurate use of staging, which encourages compliance with national standards of care including the NCCN treatment guidelines. A patient care evaluation study on colon cancer management showed a dramatic increase in one of the key surgical-pathology goals (retrieving at least 12 lymph nodes at the time of resection) and noted that this benchmark rose from only 27-37 percent in previous years to 82 percent. Another detailed outcome study of patients with colon cancer demonstrated the impact of the older age population and high number of second primaries found in our patient population.

Along with the success of the Breast Center, there has been further growth in other high-quality cancer programs that contribute to the successful outcomes for patients treated at this hospital (robotic cancer surgery, access to participation in research trials and Intensity-Modulated Radiation Therapy). 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.

Robert Miller, M.D.

Chairman

Cancer Committee



Quality Assessment and Improvements

The St. Anthony's Hospital Cancer Committee (SAHCC) has long embraced a philosophy of quality assessment and improvement. Quality is defined as meeting or exceeding the needs and expectations of the customer. At St. Anthony's Hospital (SAH), this is achieved through continuous improvement of everything we do and focusing on the care process.

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 system-wide, which demonstrates positive impact on customer service, improved outcomes and reduced cost.

In 2009, the SAHCC identified both short-term and long-term goals and improvement opportunities. One short-term improvement was to expand the patient education and support services provided. The nursing team within the Cancer Care Center revised all patient education material and began to include a video for all patients prior to beginning radiation therapy. The video reinforces the important information provided by the radiation oncologist and nurses during the patient's initial consultation. The "new patient packet" was also revised to include contacts and resources such as the American Cancer Society and a listing of all support groups in the community.

One of the long-term goals continued in 2009 was to support the Susan Sheppard McGillicuddy Breast Center accreditation by the National Accreditation Program for Breast Centers. In addition to the implementation of a multidisciplinary breast conference twice a month, the SAHCC has approved use of the National Comprehensive Cancer Network (NCCN) guidelines as the approved standard of care for breast cancer management. The physicians incorporate NCCN guidelines into the discussion of all patients presented at the tumor conference. SAH Administration anticipates applying for breast center accreditation in early 2010.

The SAHCC strengthened its partnership with the American Cancer Society (ACS) in 2009. In addition to providing facilities and services for the St. Petersburg Man-to-Man prostate cancer support group, the processes implemented by the 2008 SAH cancer care team to insure that newly diagnosed cancer patients are made aware of ACS services and how to access them, resulted in SAH facilities exceeding their accrual goals.

The SAHCC monitors indicators 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



2008 Statistical Summary

Incidence

In 2008, there were 996 new cases of cancer diagnosed at St. Anthony's with 68 recurrent or metastatic cancer from cases diagnosed and treated elsewhere (non-analytic). Figure 1 depicts the annual new accessions (cases) since St. Anthony's Cancer Registry reference date of January 1, 1998.

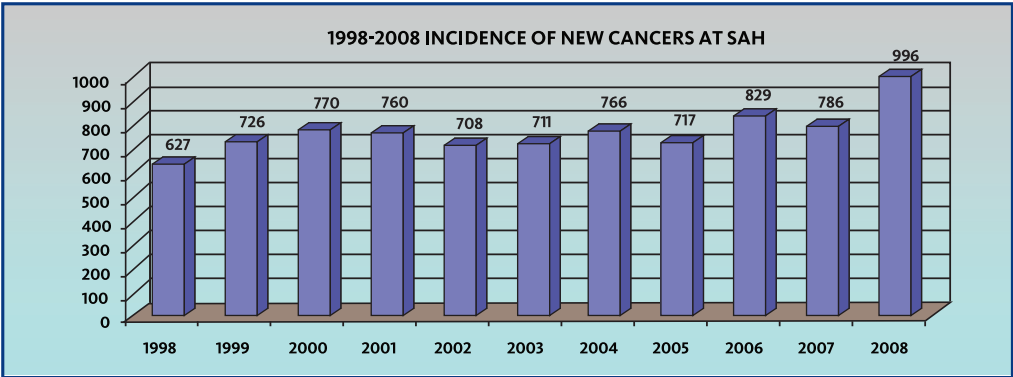


Figure 1

Class of Case

Class 0 are cases that were diagnosed at St. Anthony's Hospital and went elsewhere for treatment. Class 1 cases were both diagnosed and received part/all of the first course of treatment at St. Anthony's Hospital. Class 2 cases were diagnosed elsewhere and came to St. Anthony's Hospital for part or the entire first course of treatment. In 2008, 265 (27 percent) came from other facilities to continue first course of treatment at St. Anthony's Hospital, while 555 (55 percent) patients were both diagnosed and received part or all of first course of treatment at St. Anthony's Hospital. Only 176 (18 percent) of newly diagnosed cases were too ill for further treatment, declined treatment and/or decided to seek treatment at another institution.

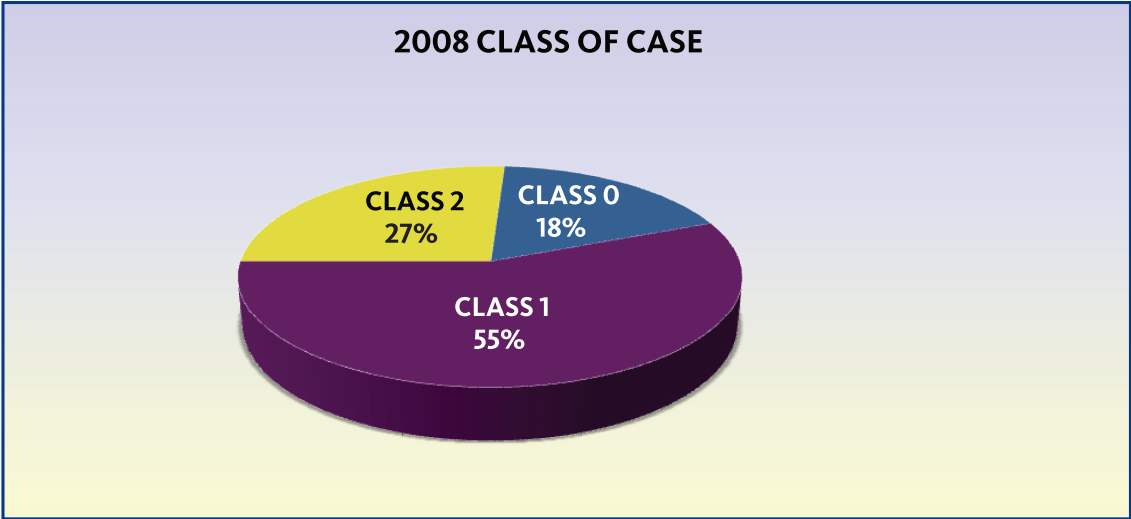


Figure 2

Top Five Primary Cancer Sites at St. Anthony's Hospital

The top five most frequently occurring cancers at St. Anthony's Hospital in 2008 were breast at 30 percent, lung at 14 percent, colorectal at 8 percent, prostate at 8 percent and bladder at 5 percent.

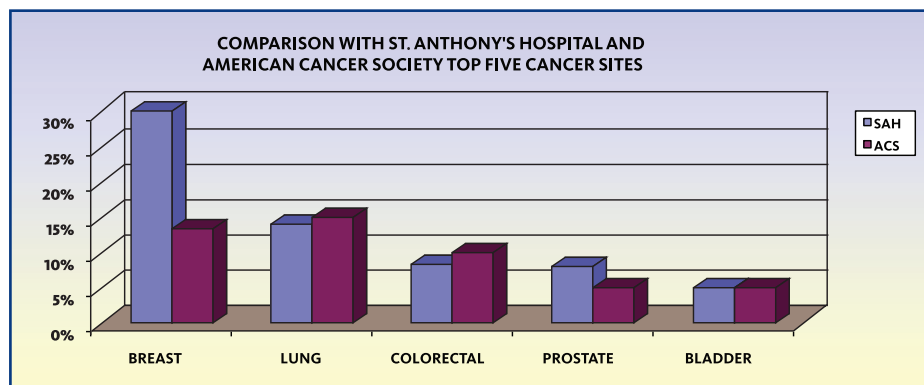


Figure 3

Comparing to the American Cancer Society, their data shows breast at 13 percent, lung at 15 percent, colorectal at 10 percent, prostate at 5 percent and bladder at 5 percent. Breast data will naturally be higher at St. Anthony's due to fact that we have the breast center attracting a larger share of the breast cancer population.

Table 1

Primary Site	Total	Male	Female
ALL SITES	996	430	566
Oral Cavity	55	40	15
Tongue	9	8	1
Oropharynx/Hypopharynx	4	2	2
Other	41	29	12
Digestive System	128	78	59
Esophagus	6	4	2
Stomach	8	7	1
Colon	56	28	28
Rectum	26	19	7
Anus/Anal Canal	9	4	5
Liver	15	13	2
Pancreas	19	10	9
Other	8	3	5
Respiratory System	167	94	72
Nasal/Sinus	12	4	8
Larynx	12	8	4
Lung/Bronchus	143	82	60
Blood and Bone Marrow and Bone	21	12	9
Blood and Bone Marrow	18	10	8
Bone	3	2	1
Connect/Soft Tissue	8	3	5
Melanoma and Other Skin	24	17	7
Breast	302	5	297
Female Genital	40	0	40
Cervix Uteri	7	0	7
Corpus Uteri	23	0	23
Ovary	9	0	9
Vulva	1	0	1

Male Genital	84	84	0
Prostate	81	81	0
Testis	1	1	0
Other	2	2	0
Urinary System	71	51	20
Bladder	45	33	12
Kidney/Renal	25	18	7
Other	1	0	1
Brain and CNS	38	15	23
Meninges	17	5	12
Brain	18	8	10
Other	3	2	1
Endocrine	28	9	19
Thyroid	20	5	15
Other	8	4	4
Lymphatic System	37	19	18
Lymph Nodes	37	19	18
Unknown Primary	11	7	4
Other/Ill-defined	1	1	0

Demographics

Data from the American Cancer Society's *Facts and Figures for 2008* estimated that there will be more than 1,437,180 new cancer cases in 2009 and 101,920 of those cases will be diagnosed in Florida. Gender at St. Anthony's Hospital was a little less equally distributed than 2007, with males (430) and females (566).

Race was consistent with the 2007 data: Caucasian 87 percent, Africa American 11 percent, and Hispanic Asian, Oriental and American Indian 2 percent. More than 25 percent of patients reported use of tobacco products (cigarette and/or cigars), and 30 percent reported previous use. The adjacent figure depicts the age distribution at diagnosis.

The median age for all cancer sites at diagnosis was 67, with more than 70 percent of all cases being diagnosed between the ages of 59 and 79.

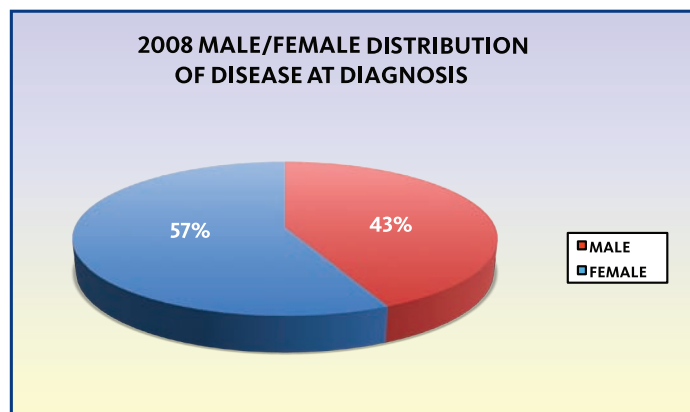


Figure 4

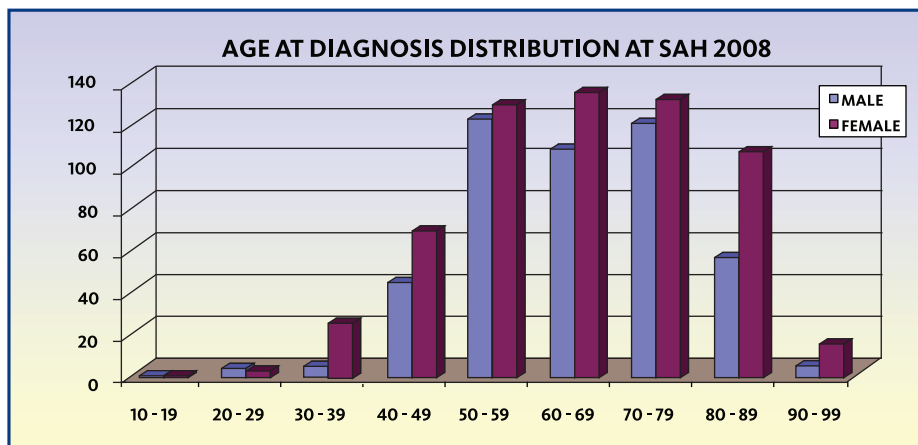


Figure 5

Stage at Diagnosis for 2008

Stage plays an important role in the prognosis and treatment of cancer. Analysis of staging of the 1,064 analytic and non-analytic cases during 2008 showed the following: Stage 0 – 88 cases, Stage 1 – 289 cases, Stage 2 – 241 cases, Stage 3 – 125 cases and Stage 4 – 161 cases, with 77 cases of unknown stage and 85 cases not eligible for staging.

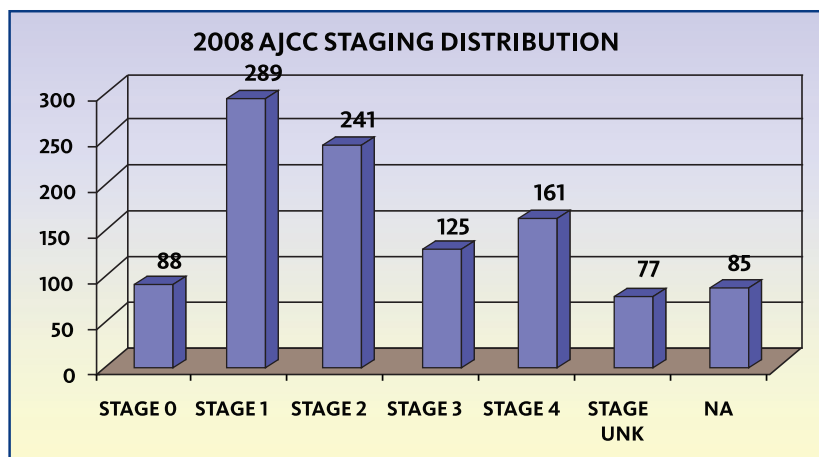


Figure 6

Evaluation of Care for the Colon Cancer Patient at St. Anthony's Hospital (SAH) 1999-2003

Including Comparison With National Cancer Data Base (NCDB) Survival Data

Michael Diaz, M.D.

Cancer Liaison Physician

St. Anthony's Hospital Cancer Committee

Introduction

The purpose of this study is to review the incidence, distribution and survival rates for patients diagnosed and/or treated for cancer of the colon at St. Anthony's Hospital (SAH). Colon cancer is a common cause of death in both men and women in the United States. Based on current data from the Surveillance, Epidemiology, End Results (SEER) database, a division of the National Cancer Institute, it is estimated that 108,070 men and women will be diagnosed with cancer of the colon in 2009. Additionally, 5.2 percent of men and women born today will be diagnosed with cancer of the colon (and rectum) during their lifetime. This translates to one out of 19 men and women being diagnosed with cancer of the colon (and rectum) at some time during their life. Cancer of the colon was the third most common cause of cancer diagnosed at St. Anthony's Hospital during 2008.

Method

A review of 365 analytic cases of cancer of the colon diagnosed and/or treated at SAH during 1999 through 2003 was conducted. The date range was chosen based on availability of five-year survival data. The aggregate data from the SAH analytic cases were compared to those from the National Cancer Database (NCDB). The five-year observed survival rates of the analytical cases from SAH for 1999 through 2003 were compared to the observed survival rates from the NCDB for 1998 through 2001 as the NCDB data from 2002 and 2003 has not yet been published for comparison.

Results

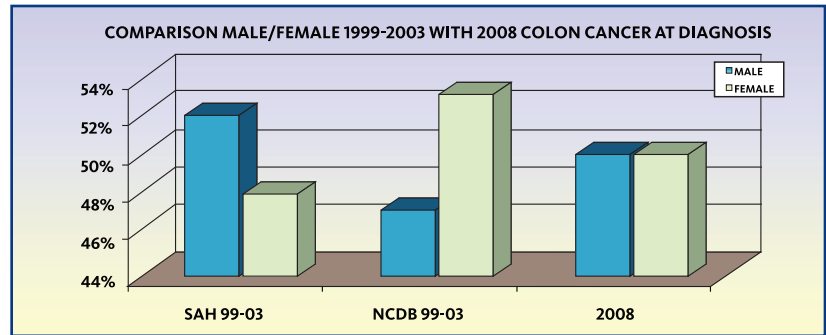
Male-to-Female Distribution

The distribution for cancer of the colon by sex for SAH from 1999 through 2003 is summarized in Table 1 and Graph 1. Also available for comparison during this same time period is the

	SAH 1999-2003	NCDB 1999-2003	SAH 2008
Male	52%	47%	50%
Female	48%	53%	50%

Table 1

distribution from the NCDB. The percentage for males at SAH is 52 percent compared to the NCDB male percentage at 47 percent. As expected, the rate for women at SAH is 48 percent and NCDB is 53 percent. For comparative purposes, the distribution rates of male and female for SAH 2008 analytic cases for cancer of the colon (Class 0, 1 and 2) has been included and is even at 50 percent for both males and females.



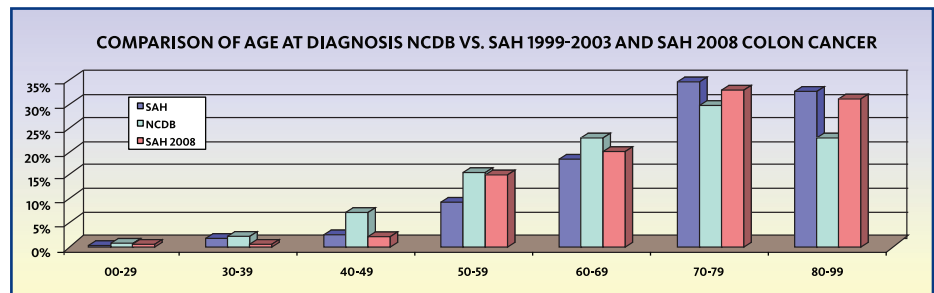
Graph 1

Distribution by Age at Diagnosis

The percentage distribution for the age at diagnosis for cancer of the colon at SAH, 1999 through 2003, can be found in Table 2 and Graph 2. Also available for comparison is the percentage distribution at age of diagnosis from the NCDB from 1999 through 2003. The differences in the age distribution can be explained by the older patient population seen in St. Petersburg, Florida, which SAH serves (compared to the national population). Data from 2008 SAH distribution has also been added for interest sake.

	0-29	30-39	40-49	50-59	60-69	70-79	80-99
SAH	0%	2%	3%	9%	19%	35%	33%
NCDB	1%	2%	7%	16%	23%	29%	23%
SAH 2008	0%	0%	2%	15%	20%	33%	31%

Table 2



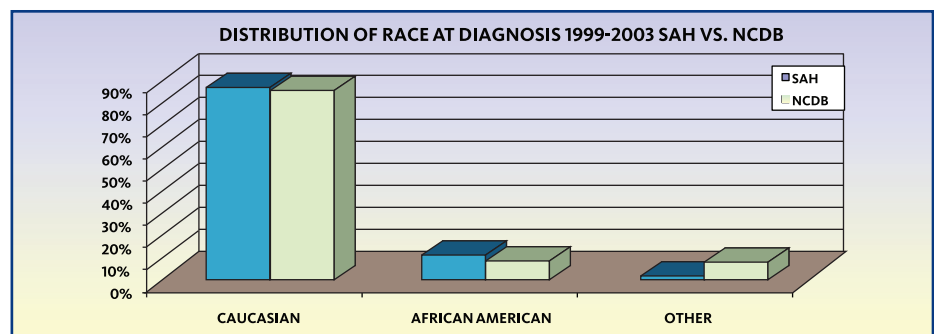
Graph 2

Distribution by Race at Diagnosis

The percentage by race diagnosed with cancer of the colon at SAH from 1999 through 2003 can be seen in Table 3 and Graph 3. Provided for comparative purposes are the percentage by race diagnosed with cancer of the colon from the NCDB from 1999 through 2003. Any discrepancies are related to the different patient population managed at SAH compared to the national averages. The majority of the cases diagnosed at SAH (87 percent) were Caucasian. African Americans comprised 12 percent of the cases and other nationalities were at 1 percent.

	Caucasian	African American	Other
SAH	87%	12%	1%
NCDB	82%	10%	7%

Table 3



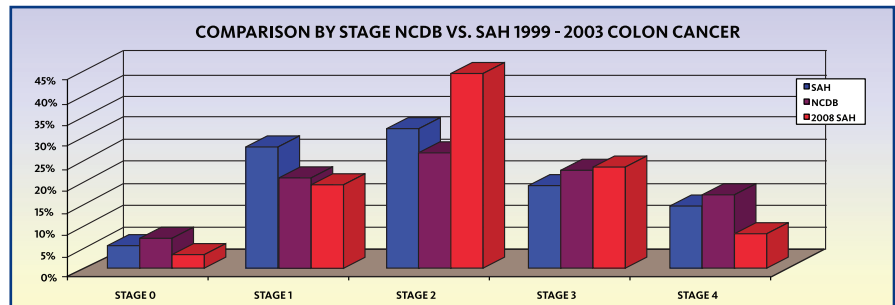
Graph 3

Distribution by Stage at Diagnosis

The percentage distribution by stage at the time of diagnosis can be found in Table 4 and Graph 4. At SAH from 1999 through 2003, approximately 60 percent were diagnosed at an early stage before the cancer metastasized to local/regional lymph nodes or to distant sites. Approximately 28 percent were diagnosed at Stage 1 and 32 percent diagnosed at Stage 2. These results are comparable to those from the NCDB. Approximately 33 percent were diagnosed at a later stage after the cancer had left the initial site and metastasized to either regional lymph nodes or to distant sites. Approximately 19 percent were diagnosed at Stage 3 and 14 percent diagnosed at Stage 4. Once again, the results at SAH are comparable to those from the NCDB. Included in Table 4, for comparative purposes, are the SAH stage of diagnosis observed for 2008. The data may possibly be indicating a trend of diagnosis at an earlier stage given the higher percentage of Stage 2 diagnosis compared to Stage 4. Analysis of future data will determine if this is indeed significant.

	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4
SAH	5%	28%	32%	19%	14%
NCDB	7%	21%	26%	22%	17%
2008 SAH	3%	19%	45%	23%	8%

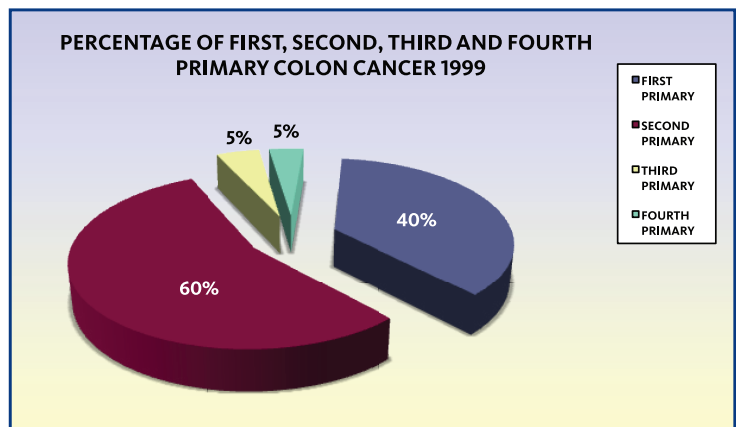
Table 4



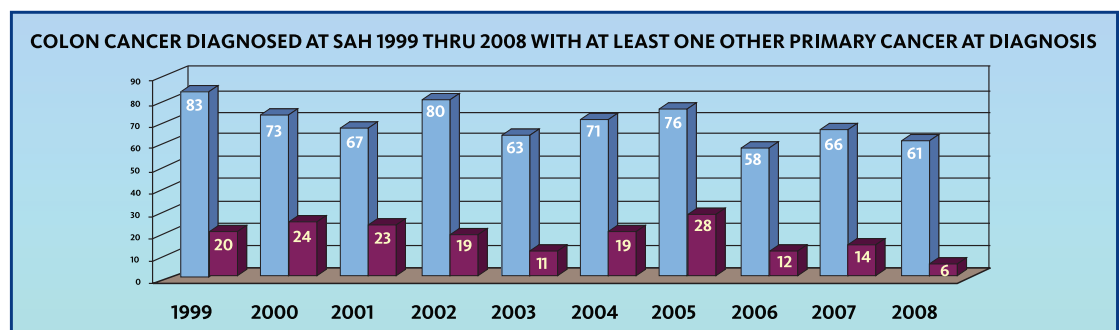
Graph 4

Multiple Primary Cancers of the Colon

An interesting side issue with multiple primary cancers arose during review of this data. Of the 365 cases diagnosed and treated at SAH during 1999 through 2003, 97 had at least one other primary cancer at the time of diagnosis (refer to Graph 5 and 6). Review of 1999 data alone showed that of the 83 colon cancer cases identified, not only did 20 of the cases have another primary cancer, but one of those 20 patients had colon cancer as the third primary cancer and another had colon cancer as the fourth primary cancer.



Graph 5



Graph 6

Long-term Relative Survival Data

The five-year relative survival data for patients diagnosed at SAH from 1999 through 2003 with cancer of the colon are presented in Graph 7 by stage and compared to the survival data from the NCDB. Relative survival is lower in the SAH population for Stage 0, 1, 2 and 3 patients. Five-year relative survival for Stage 4 is comparable for both groups.

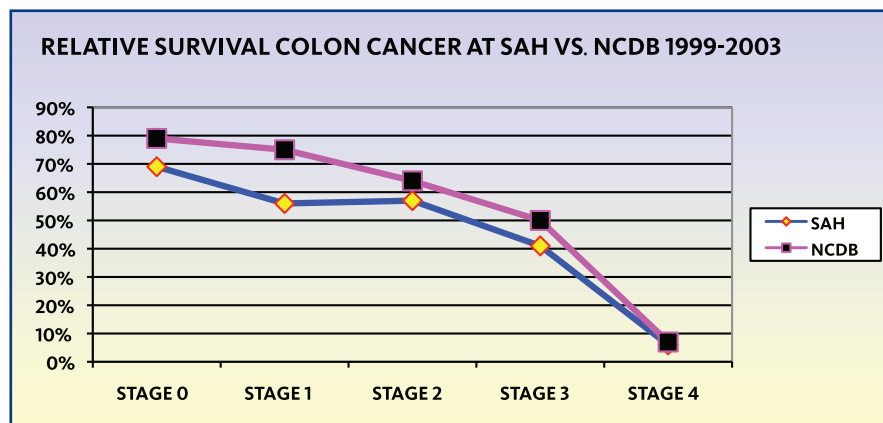
	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4
SAH	69%	56%	57%	41%	6%
NCDB	79%	75%	64%	50%	7%

Table 5

Discussion

Significant demographic differences in the age at diagnosis as well as differences in race are seen in the SAH patient population compared to that from the NCDB data. The other

demographic differences such as sex and stage at time of diagnosis are comparable and well within expected statistical variability. The SAH survival data is consistently lower than the survival data from the NCDB. The most significant factor is related to the older age at time of diagnosis seen at SAH compared to the NCDB. Not only are older patients considered to have shorter life expectancies due to other co-morbid conditions, but older patients with colon cancer are more likely to have acquired additional malignancies, which can have a dramatic impact on patient survival. Twenty-six percent of the patients from the SAH population during 1999 through 2003 had at least one other malignancy at the time of diagnosis of the colon cancer.



Graph 7

Respectfully submitted,

Michael Diaz, M.D.

Cancer Liaison Physician

St. Anthony's Hospital Cancer Committee

Colon Cancer Management at St. Anthony's Hospital:

Adherence to the National Cancer Center Network Management Guidelines

Michael Diaz, M.D.

Medical Oncology, Cancer Liaison Physician

Purpose

The purpose of this report is to provide a summary and review of the ability to demonstrate quality care in the management of colon cancer at St. Anthony's Hospital (SAH) as measured by the adherence to the treatment guidelines established by the National Cancer Center Network (NCCN). The scope of this report involves a review of the colon cancer cases diagnosed and/or treated at SAH during 2008. The report reviews key components of treatment management (as established by the NCCN) regarding pre-surgical evaluation, surgical, as well as post surgical management of colon cancer.

Fifty-five cases of colon cancer that were diagnosed and surgically managed at SAH in 2008 were included in the review. Key elements of management were recorded by the St. Anthony's Cancer Registry based on review of the medical records and information provided by the managing physicians. The pre-surgical elements included in the study were documentation of colonoscopy, CEA levels and documentation of pre-surgical scans. The key surgical element involved removal and identification of at least 12 lymph nodes. The key post-surgical element involved the use of adjuvant chemotherapy if appropriate.

Results

Table 1 Pre-surgical Elements		
Documentation of Colonoscopy (n=55)	Number	Percentage
Documentation That Colonoscopy Was Performed	50	90.91%
Patient Refused	1	1.82%
None Performed	1	1.82%
Documentation Unavailable	3	5.45%
Documentation of Pre-surgical CEA (n=55)	Number	Percentage
CEA Documented	37	67.27%
CEA Not Documented	18	32.73%
Documentation of Pre-surgical Scan (n=55)	Number	Percentage
Pre-surgery Scan Documented	35	63.64%
Pre-surgery Scan Not Documented	20	36.36%

Table 2 Surgical Elements		
12 or More Lymph Nodes Removed (n=55)	Number	Percentage
12 or More Lymph Nodes	46	81.82%
Less Than 12 Lymph Nodes	9	16.36%

Note: One was Stage 0 and one was Stage 4

Table 3 Post-surgical Elements		
Adjuvant Chemotherapy Offered/Given/Considered (n=23)	Number	Percentage
Documentation of Chemo Given	11	47.83%
Documentation of Chemo Offered	2	8.70%
Documentation of Chemo Considered	4	17.39%
Total	17	73.91%
Other	1	4.35%
Unknown	5	21.74%

Table 4 Percentage of Cases Following NCCN Guidelines		
NCCN Guidelines Adherence (n=55)	Number	Percentage
Percentage NCCN Guidelines Followed	19	34.35%
NCCN Guidelines Not Followed	36	65.45%

Discussion

The pre-surgical elements consisted of documentation of a colonoscopy, CEA level and pre-surgical staging CT scan. The high percentage of documentation of a colonoscopy is to be expected for several reasons. The colonoscopy is typically the modality through which colon cancer is diagnosed. Also, the colonoscopy report is the documentation used to justify the surgical resection. Documentation of the CEA level and pre-surgical staging are not required to proceed with the surgery. These studies might actually have been done, but are not necessarily added to the patient's medical record. The cancer registry relies on the physicians' practices to provide the documentation and is limited by compliance with the written request. The registry does not have the resources to aggressively pursue multiple requests or the ability to contact the patient for more information. The Commission on Cancer (a division of the American College of Surgeons) is actually recommending that the surgeon state, in the pre-surgical checklist immediately just before surgery, the clinical stage of the colon cancer and the imaging study utilized to assess the clinical stage. This would facilitate documentation of this key element in the medical record.

The compliance with the surgical elements was at 82 percent with 12 or more lymph nodes removed at the time of surgical resection. This number has dramatically improved over the past few years from 27 to 37 percent recorded from 2004 to 2006 at SAH. This has been achieved in part from a greater effort from surgeons as well as the implementation of new techniques in the pathology department to better identify lymph nodes in the respected surgical tissue.

Compliance with the post-surgical element, adjuvant chemotherapy, when appropriate, was approximately 74 percent, which is a notable increase from past studies. The compliance rates with this element historically have been in the 40 to 60 percent range based on comparable data from 2004 to 2006 at SAH. This increase in compliance has been achieved, in part, by improved access to patient clinical records by the St. Anthony's Cancer Registry, such as having direct access to the outpatient electronic medical records in one of the large medical oncology practices that manages a high percentage of the oncology patients diagnosed at SAH. Twenty-one percent of the cases were labeled as unknown due to lack of availability of any documentation. As stated previously, the cancer registry relies on the physicians' practices to provide the documentation and is limited by compliance with the written request, lack of resources to aggressively pursue multiple requests or the ability to contact the patient for more information.

Overall total compliance with all of the key elements from the NCCN treatment guidelines for colon cancer is estimated at approximately 34 percent for the year 2008. No previous studies at St. Anthony's Hospital exist to serve for comparison. This result will serve as a baseline from which we can plan improvement and monitor our progress over time. As stated above, improvement in compliance with NCCN treatment guidelines will require better documentation of the elements by physicians as well as increased access to information/documentation by the St. Anthony's Cancer Registry.

Respectfully submitted,

Michael Diaz, M.D.

Cancer Liaison Physician

St. Anthony's Hospital Cancer Committee

Improving the Life of the Colon Cancer Patient

Gregg Shore, M.D.

Board Certified Colorectal Surgeon

Director, St. Anthony's Hospital Center for Intestinal Continence

The Ostomy Support Group of Florida is dedicated to improving the quality of life for people (and their loved ones) who have, or will have, an ostomy — may it be a colostomy, ileostomy, urostomy or any of the continent diversions, such as the Kock pouch, BCIR, J-pouch or even the urinary Indiana pouch. We are here to support those who have had these surgeries due to cancer, ulcerative colitis, Crohn's disease, familial polyposis or any disease that requires an ostomy.

The Ostomy Support Group had its first meeting on March 26, 2008, with speaker Dr. Michael Diaz discussing anemia to an audience of four patients. In the past year, we have grown to 11 paid members and a listing of 24 total people who are not all members. The upcoming meetings will include seat belt safety for ostomates, nutrition and an enterstomal therapist "question and answer" period.

The members will also begin training through the UOAA to be certified in a visitation program. At the patient's request, and a doctor's order, a trained support member will visit someone preparing for ostomy surgery or a new postoperative ostomy patient.

The group meets the last Wednesday of every month at St. Anthony's Hospital on the fourth floor. For any questions about meetings or membership, you may contact Leslee Hall, secretary, at hall_leslee@yahoo.com.



2009 Oncology Committee Members

Robert D. Miller, M.D.	Cancer Committee Chairman/Radiation Oncologist
Daniel Saenz, M.D.	Pathology
Claudia Bundschu, M.D.	Radiology
Teresa Bradley, M.D.	Administration/Cancer Committee Advisor
Michael Diaz, M.D.	Cancer Liaison Physician/Medical Oncologist
Corey Evans, M.D.	Pain Control/Palliative Care
Tim McMahon	Cancer Care Program Administrator
Rosalie Conner, R.N.	Oncology Nursing
Mary Gardner	Nursing Education Specialist
Cindy Crisci	American Cancer Society
Reverend Al Hall	Pastoral Care Representative
Nancy Shannon	Public Member - Community Service
Jane Morse-Swett	Facility-based - Community Outreach
Alfonso Castro	Rehabilitation Services
Michelle Fewster	Clinical Research
Dinah Merrill, CTR	Oncology Data Services Manager
Francis Brown, RD	Dietary Services
Gail Bledsoe	Health Information Systems Manager
Bonnie Mason	Marketing Manager, St. Anthony's Hospital

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.



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