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BON SECOURS ST. MARY'S HOSPITAL CANCER INSTITUTE

2010 Annual Report

BON SECOURS ST. MARY'S HOSPITAL
Bon Secours Richmond Health System

Good Help to Those in Need®

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Our Mission

To provide compassionate, quality healthcare services to those in need, including the poor and dying, for the purpose of alleviating human suffering..

Chairman's Report

The components of the Bon Secours St. Mary's Hospital Cancer Care Center, an integral part of the Bon Secours Cancer Institute, reflect our commitment to care and service to our patients. 2009 marked our 34th year of continuous approval by the Commission on Cancer of the American College of Surgeons. The center received its first approval on August 1, 1975. Our designation as a Community Comprehensive Cancer Program by the American College of Surgeons assures that we provide a multidisciplinary approach to the care of our patients. Patients and families are provided high quality care from the time of diagnosis through treatment and follow up. Our team consists of physicians, nurses, nutritionists, pastoral care, social work/care management, physical and occupational therapists, home health, hospice, palliative care and many other specialists. Members of each discipline work together to design treatment plans tailored specifically to each patient's situation. Our program is based on the mission and values of the Bon Secours Health System. Our cancer registry accessioned over 1,800 patients this year. We continue to monitor more than 12,000 patients annually. This assures continued follow up care of our patients and helps us to determine their treatment outcome.

We are pleased to present this annual report of our activities. Our site-specific study this year features our work with brain cancer. The study describes our experiences with this diagnosis and offers a comparison to national statistics. Our primary site table provides an overview of statistics regarding all cancer diagnoses that we treat. We hope that as you review this report, you will be able to see the comprehensive approach we take to providing the highest quality of care to the patients of our community.

George Parker, MD
Chairman, Cancer Committee

Cancer Committee Members

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ACOS Liaison, Surgery

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Nurse Manager of GYN Surgical Oncology

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Teresa Crist, RTT
Clinical Director of Radiation Oncolgy

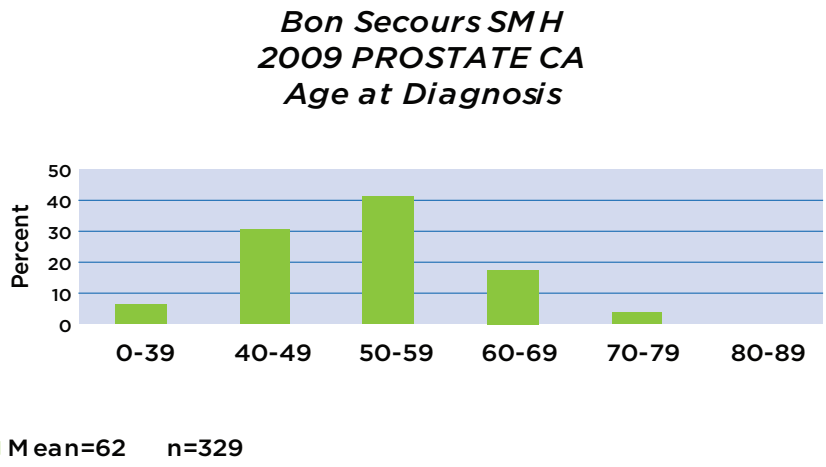
Terry Levandowski
Liaison Representative for the American Cancer Society

Site Study—Prostate

T. J. Wallace, MD, PhD

Prostate cancer is the most common cancer, excluding skin cancer, and the second leading cause of cancer related death in men in the United States. According to the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) data, it is estimated that 217,730 men will be diagnosed with and 32,050 men will die of cancer of the prostate in 2010. According to autopsy data, 70% of men > 80 years of age and 40% of men > 50 years of age have pathologic evidence of prostate cancer.[1] Between 2003 and 2007, the median age at diagnosis for cancer of the prostate was 67 years of age. In 2009, the average age at diagnosis at St. Mary's hospital was 62 with 63% of men diagnosed over the age of 60 (Fig. 1, 2).

Fig. 1



According to the SEER database between 2003 and 2007, the age-adjusted incidence rate was 156.9 per 100,000 per year. African American men have the highest incidence of prostate cancer of any group (234.6 per 100,000). At St. Mary's in 2009, 28% of patients treated for prostate cancer were African American while 71% were Caucasian (Fig. 3).

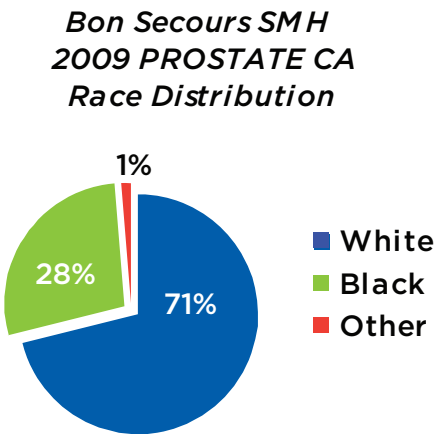


Fig. 3

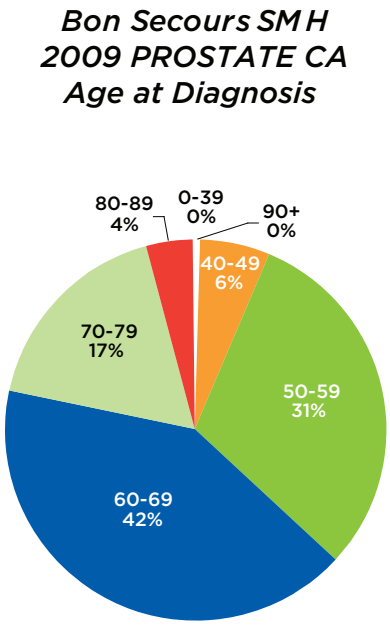


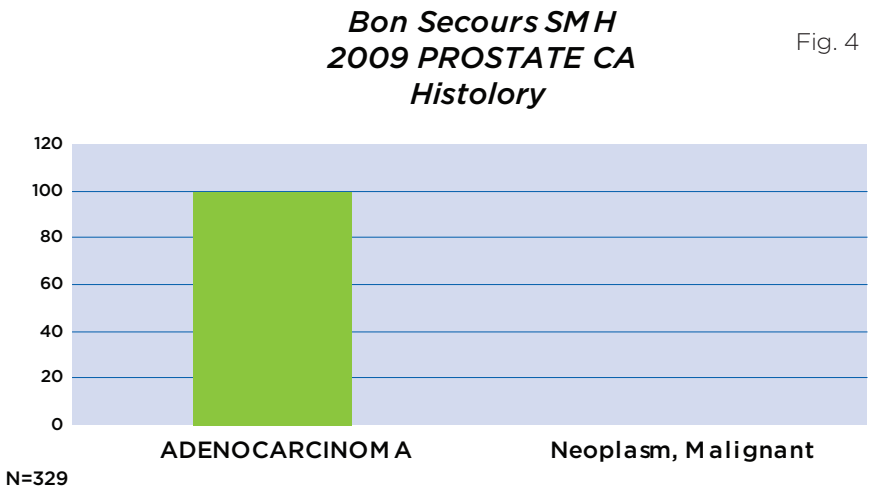
Fig. 2

Site Study—Prostate

The exact etiology of prostate cancer is unknown at present. However, many etiologic factors have been suggested. A high fat diet was first proposed as a potential contributing factor for the development of prostate cancer after a study of Asian immigrants living in the U.S. showed that they had a higher incidence of prostate cancer than their Japanese counterparts living in Japan or China.[2,3] It has been shown that diets high in fat content may increase the relative risk of prostate cancer by a factor of 1.6 to 1.9.[4] Familial clustering of prostate cancer was first reported in the 1960s.[5] A large case-control study, showed a two-fold increase risk of prostate cancer in men with a family history in a single first-degree relative, a five-fold risk if there were two affected relatives and a relative risk of 10.9 when there were 3 first-degree relatives with prostate cancer.[6]

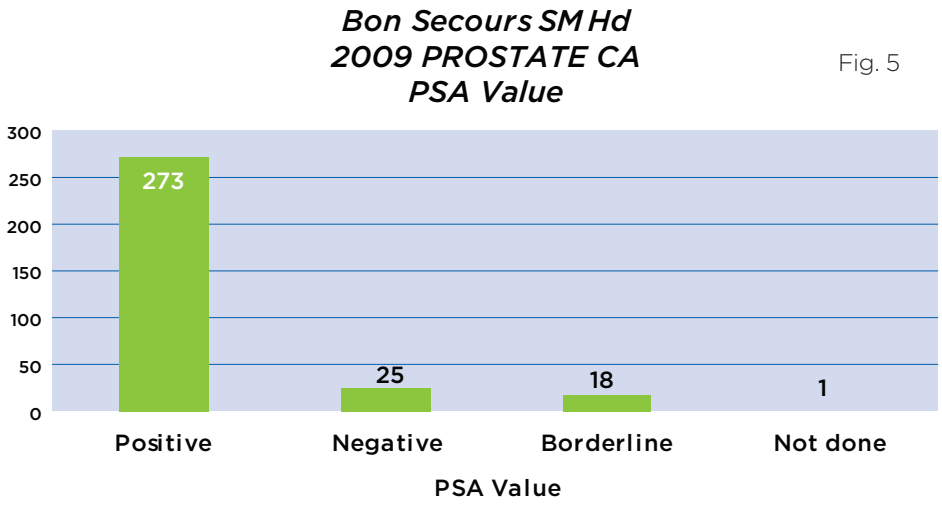
High-grade prostatic intraepithelial neoplasia (PIN) is the histologic entity widely considered to be the most likely precursor of invasive prostate cancer[7]. PIN is characterized by cellular proliferation within preexisting ducts and glands with cytologic changes that mimic neoplasm. PIN is associated with progressive abnormalities of phenotype and genotype that are intermediate between normal prostatic epithelium and cancer. The most common histology of prostate carcinoma is adenocarcinoma with 95% of cases assigned this diagnosis. At St. Mary's, in 2009, 100% of the cases of prostate cancer were adenocarcinoma (Fig. 4).

Fig. 4



A normal PSA value ranges from 0 to 4 ng/ml, however the upper level of normal may be adjusted according to age and race. While PSA screening is controversial, in the United States, annual PSA is used as a screening tool for men 50 years of age and over with a life expectancy of at least 10 years. Because 25% of prostate cancer can be diagnosed in men with normal PSA values, it should be used in combination with the digital rectal examination.[8] At St. Mary's in 2009, 89% of the patients diagnosed with prostate cancer had elevated or borderline PSA values (Fig. 5).

Fig. 5

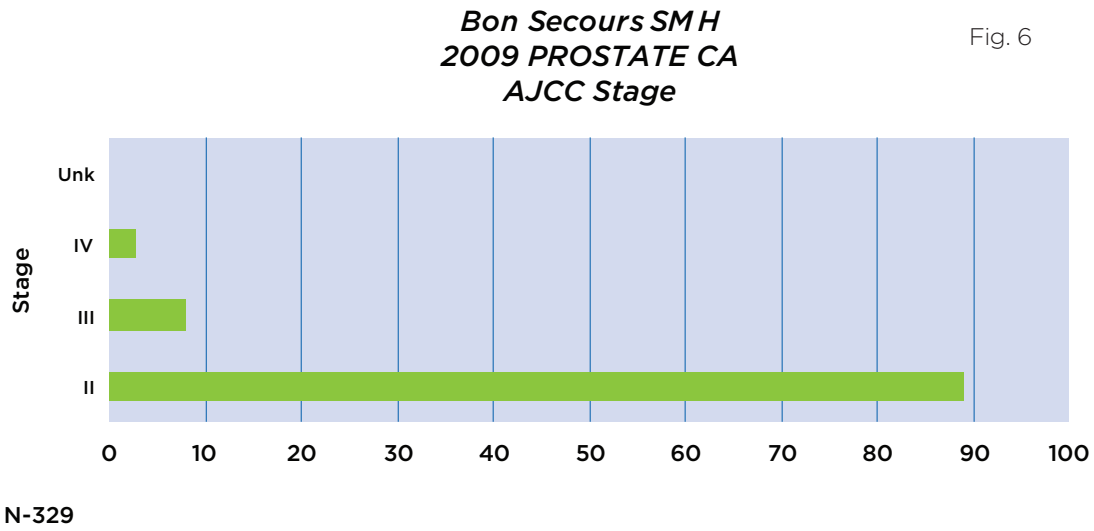


Site Study—Prostate

PSA velocity has also become a useful tool when used in conjunction with the PSA. For men with a PSA of < 4ng/ml, data suggest that a PSA velocity of >/= 0.35 ng/ml/y is suspicious for the presence of cancer. For men with a PSA of 4-10ng/ml, a PSA velocity of >/= 0.75ng/ml/y is suspicious for malignancy. In addition to a PSA and DRE, work up should also include a bone scan for clinical stage T1-T2 disease and a PSA > 20ng/ml, a Gleason score of = 8 or clinical stage T3–T4 disease. Plain films should also be done to correlate findings. A pelvic CT scan or MRI (institution preference/availability) should be ordered for clinical stage T3, T4 or T1–T2 with a risk of lymph node involvement of > 20%.

Prostate cancer stage grouping is based upon the clinical TNM staging system and the Gleason score. A grade I tumor is well differentiated with slight anaplasia corresponding to a Gleason score of 2–4. Grade II is moderately differentiated with moderate anaplasia corresponding to a Gleason score of 5-6 and Grade III-IV is poorly differentiated with marked anaplasia and a Gleason score of 7–10. The majority of patients diagnosed with Prostate cancer are considered stage II; the disease is confined to the prostate with variable Gleason scores. Staging at St. Mary's was consistent with national averages with 89% of patients diagnosed with stage II disease (Fig. 6)

Fig. 6



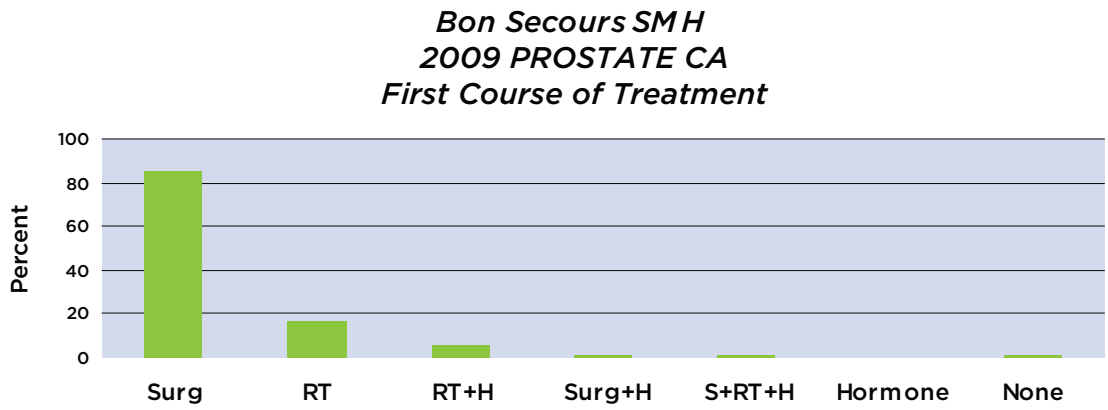
Treatment may consist of expectant management, surgery (Both open and robotic), brachytherapy, external beam radiation therapy, hormonal therapy or a combination of two or more of the above modalities. The decision depends on a patient's projected survival typically over 10 years, which is based on age and comorbidities, patient preference (side effects of treatment versus living with cancer) and on the risk grouping (NCCN risk guidelines are recommended) assigned at diagnosis (i.e., low, intermediate or high risk). Radical retropubic prostatectomy is the gold standard for surgical techniques however, in experienced hands the laparoscopic and robotic approaches seem to have comparable outcomes when compared to the traditional open approach.[9,10] At St. Mary's hospital in 2009, surgery was the initial choice of therapy in 75% of patients diagnosed with prostate cancer (Fig. 7).

With the advent of IMRT over the last decade, external beam radiation can be delivered much more accurately. The modulation of the radiation beams allows for smaller margins around the target. This enables the delivery of higher doses to the prostate while minimizing the amount of normal tissue treated, which, in turn, decreases the acute side effects. Also, with the introduction of image-guided radiation therapy (IGRT), the precision of the treatments has been improved because it corrects for the day-to-day variation in prostate movement.

Low-dose rate brachytherapy involves the permanent transperineal implantation of radioactive sources into the prostate gland without any incision. The highest radiation dose is confined to the prostate and a small volume of surrounding tissue. The strength of the radiation decreases over time and depends on the half-life of the isotope used. High dose-rate brachytherapy involves the transperineal placement of treatment catheters through which an individual radioactive source is robotically placed temporarily at various dwell positions to achieve a conformal dose of radiation to the prostate. At the end of treatment, the catheters are removed and the treatment is repeated multiple times to achieve a curative dose to the prostate.

Site Study—Prostate

Fig. 7



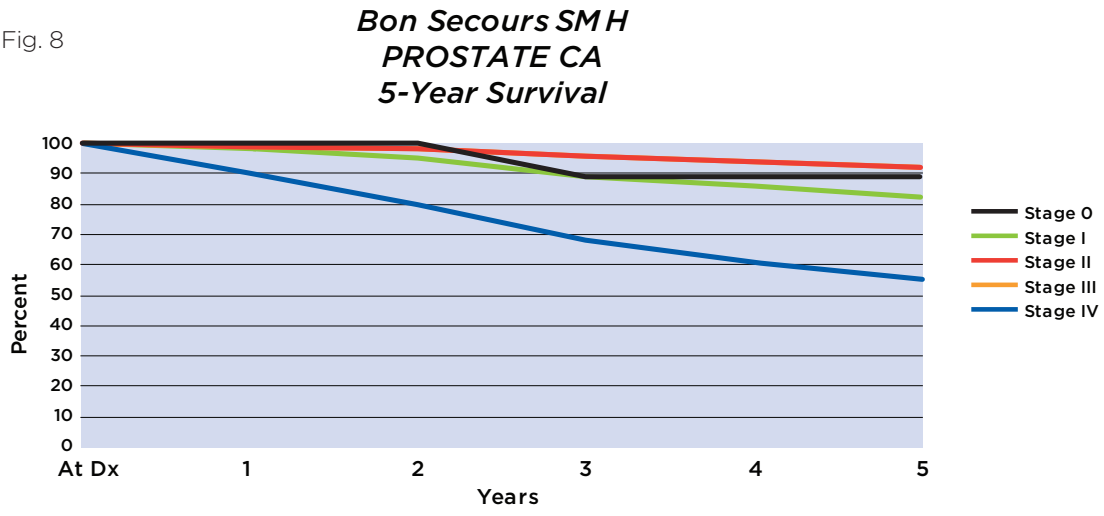
1st Course of Tx by Best Stage

	Stage II	Stage III	Stage IV	Unk
Surg	222	22	3	1
RT	53	0	0	0
RT+H	16	2	1	0
Surg+H	2	1	1	0
Surg+RT+H	0	1	1	0
Hormone	0	0	1	0
None	0	0	2	0

Treatments also available as definitive options on clinical trial include cryotherapy, or freezing of the prostate gland and High Intensity Focused Ultrasound (HIFU) which heats and destroys the prostate gland.

Hormonal therapy, or total androgen blockade has been shown to have a survival advantage when used in conjunction with external beam radiation therapy, usually for more advanced stages of prostate cancer. The effects of hormone ablation therapy may have multiple synergistic effects when combined with radiation therapy.[11] Hormone ablation therapy is given neoadjuvantly to patients receiving external beam radiation therapy and thereafter for 2 to 3 years.[12,13] Hormone therapy may also be used as a single modality in an elderly patient with more advanced disease. The prostate cancer survival data at St. Mary's in 2009 compared very favorably with the data from the National Cancer Data Base (NCDB). The five year survival rate for both Stage II (confined to the prostate) and Stage III (spread beyond the prostate capsule) at St. Mary's was 92%. This compared with a survival rate of 90% for both stage II and III according to the NCDB data from 1998-2000 (Fig. 8, 9).

Fig. 8

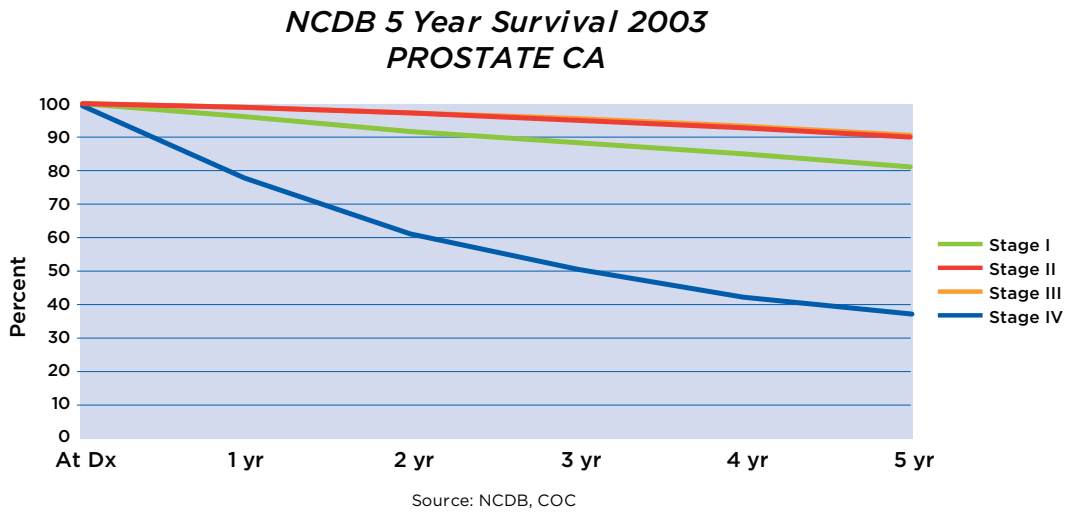


The five year survival for Stage IV disease at St. Mary's was 55% compared to 37% according to the NCDB.

While the debate over the efficacy of prostate cancer screening continues, 217,730 men will be diagnosed with and 32,050 men will die of prostate cancer in 2010. Bon Secours St. Mary's hospital continues to compare favorably with national averages with regard to treatment outcomes for prostate cancer. On the cutting edge of technology at St. Mary's, this trend will hopefully surpass national expectations in future years.

Site Study—Prostate

Fig. 9



Source: NCDB, COC

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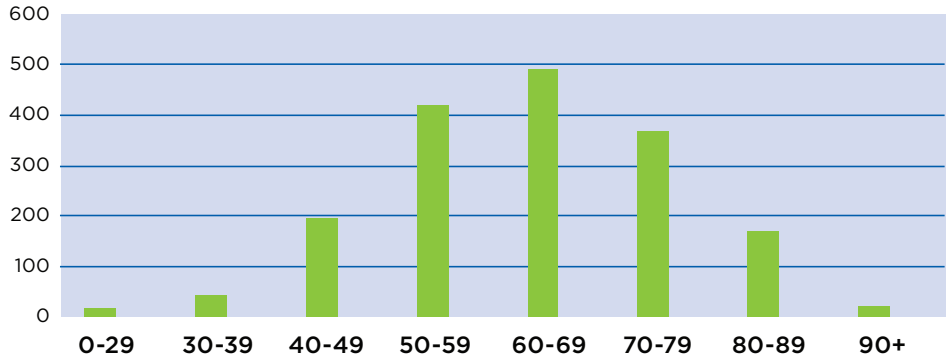
Primary Site Table

Primary Site	Total (%)	Male	Female	Analytic	NA	Alive	Exp	Stg 0	Stg I	Stg II	Stg III	Stg IV	N/A	Unk
ORAL CAVITY & PHARYNX	27 (1.5%)	20	7	26	1	26	1	0	9	3	3	5	0	7
Tongue	7 (0.4%)	4	3	7	0	7	0	0	2	0	1	1	0	3
Salivary Glands	4 (0.2%)	3	1	3	1	4	0	0	1	2	0	0	0	0
Floor of Mouth	1 (0.1%)	0	1	1	0	1	0	0	1	0	0	0	0	0
Gum & Other Mouth	4 (0.2%)	2	2	4	0	4	0	0	4	0	0	0	0	0
Nasopharynx	1 (0.1%)	1	0	1	0	1	0	0	0	0	0	0	0	1
Tonsil	3 (0.2%)	3	0	3	0	3	0	0	0	0	1	0	0	2
Oropharynx	1 (0.1%)	1	0	1	0	1	0	0	1	0	0	0	0	0
Hypopharynx	6 (0.3%)	6	0	6	0	5	1	0	0	1	1	3	0	1
DIGESTIVE SYSTEM	214 (11.7%)	112	102	206	8	162	52	6	39	55	33	44	9	20
Esophagus	15 (0.8%)	12	3	15	0	14	1	0	4	6	4	0	0	1
Stomach	16 (0.9%)	10	6	16	0	12	4	0	5	3	1	6	1	0
Small Intestine	2 (0.1%)	1	1	2	0	1	1	0	0	0	1	1	0	0
Colon Excluding Rectum	81 (4.4%)	40	41	76	5	68	13	5	15	20	16	16	1	3
Cecum	19	9	10	19	0	14	5	0	3	4	6	5	0	1
Ascending Colon	16	7	9	15	1	15	1	1	3	5	5	1	0	0
Hepatic Flexure	2	2	0	2	0	2	0	0	1	1	0	0	0	0
Transverse Colon	6	2	4	6	0	5	1	0	1	2	1	2	0	0
Splenic Flexure	1	0	1	1	0	0	1	0	0	0	0	1	0	0
Descending Colon	8	3	5	8	0	7	1	0	2	4	0	1	0	1
Sigmoid Colon	17	10	7	16	1	14	3	3	3	3	3	4	0	0
Large Intestine, NOS	12	7	5	9	3	11	1	1	2	1	1	2	1	1
Rectum & Rectosigmoid	31 (1.7%)	18	13	30	1	24	7	1	7	7	6	7	1	1
Rectosigmoid Junction	4	2	2	4	0	3	1	0	2	2	1	1	0	0
Rectum	27	16	11	26	1	21	6	1	5	7	5	6	1	1
Anus, Anal Canal & Anorectum	7 (0.4%)	2	5	6	1	6	1	0	0	4	1	0	0	1
Liver & Intrahepatic Bile Duct	8 (0.4%)	5	3	7	1	5	3	0	2	1	1	2	0	1
Liver	7	4	3	6	1	4	3	0	1	1	1	2	0	1
Intrahepatic Bile Duct	1	1	0	1	0	1	0	0	1	0	0	0	0	0
Other Biliary	5 (0.3%)	4	1	5	0	3	2	0	1	1	1	0	1	1
Pancreas	42 (2.3%)	19	23	42	0	23	19	0	3	13	2	12	0	12
Retroperitoneum	1 (0.1%)	0	1	1	0	1	0	0	1	0	0	0	0	0
Peritoneum, Omentum & Mesentery	6 (0.3%)	1	5	6	0	5	1	0	1	0	0	0	5	0
RESPIRATORY SYSTEM	143 (7.8%)	69	74	131	12	94	49	1	33	5	31	39	2	20
Nose, Nasal Cavity & Middle Ear	1 (0.1%)	0	1	1	0	1	0	0	0	0	0	1	0	0
Larynx	10 (0.5%)	9	1	10	0	10	0	1	6	1	0	0	0	2
Lung & Bronchus	132 (7.2%)	60	72	120	12	83	49	0	27	4	31	38	2	18
BONES & JOINTS	2 (0.1%)	0	2	2	0	1	1	0	0	1	0	0	0	1
Bones & Joints	2 (0.1%)	0	2	2	0	1	1	0	0	1	0	0	0	1
SOFT TISSUE	8 (.04%)	6	2	8	0	7	1	0	3	3	0	0	0	2
Soft Tissue (including Heart)	8 (0.4%)	6	2	8	0	7	1	0	3	3	0	0	0	2
SKIN EXCLUDING BCCA & SCCA	94 (5.1%)	52	42	91	3	89	5	16	50	7	9	2	4	3
Melanoma — Skin	88 (4.8%)	49	39	85	3	83	5	16	50	7	8	2	0	2
Other Nonepithelial Skin	6 (0.3%)	3	3	6	0	6	0	0	0	0	1	0	4	1
BREAST	490 (26.8%)	1	489	476	14	477	13	136	168	99	35	11	1	26
Breast	490 (26.8%)	1	489	476	14	477	13	136	162	99	36	11	1	26
FEMALE GENITAL SYSTEM	164 (9.0%)	0	164	156	8	150	14	5	81	17	24	12	11	6
Cervix Uteri	21 (1.1%)	0	21	20	1	21	0	0	14	1	2	1	0	2
Corpus & Uterus, NOS	93 (5.1%)	0	93	89	4	87	6	0	54	8	8	6	11	2
Corpus Uteri	84	0	84	82	2	79	5	0	53	7	8	5	7	2
Uterus, NOS	9	0	9	7	2	8	1	0	1	1	0	1	4	0
Ovary	34 (1.9%)	0	34	31	3	27	7	1	9	2	12	5	0	2
Vagina	3 (0.2%)	0	3	3	0	3	0	1	2	0	0	0	0	0
Vulva	13 (0.7%)	0	13	13	0	12	1	3	2	6	2	0	0	0
MALE GENITAL SYSTEM	365 (20.0%)	365	0	332	33	363	2	0	3	293	26	9	0	1
Prostate	362 (19.8%)	362	0	329	33	360	2	0	0	293	26	9	0	1
Testis	3 (0.2%)	3	0	3	0	3	0	0	3	0	0	0	0	0
URINARY SYSTEM	123 (6.7%)	82	41	112	11	107	16	28	38	13	14	17	1	1
Urinary Bladder	57 (3.1%)	47	10	47	10	50	7	23	6	7	4	7	0	0
Kidney & Renal Pelvis	60 (3.3%)	32	28	59	1	53	7	3	32	5	8	9	1	1
Ureter	5 (0.3%)	2	3	5	0	3	2	1	0	1	2	1	0	0
Other Urinary Organs	1 (0.1%)	1	0	1	0	1	0	1	0	0	0	0	0	0
BRAIN & OTHER NERVOUS SYSTEM	41 (2.2%)	18	23	39	2	31	10	0	0	0	0	0	39	0
Brain	21 (1.1%)	12	9	21	0	12	9	0	0	0	0	0	21	0
Cranial Nerves Other Nervous System	20 (1.1%)	6	14	18	2	19	1	0	0	0	0	0	18	0
ENDOCRINE SYSTEM	46 (2.5%)	19	27	44	2	46	0	0	14	2	3	4	16	5
Thyroid	30 (1.6%)	7	23	28	2	30	0	0	14	2	3	4	0	5
Other Endocrine including Thymus	16 (0.9%)	12	4	16	0	16	0	0	0	0	0	0	16	0
LYMPHOMA	43 (2.4%)	22	21	41	2	40	3	0	11	8	6	8	0	8
Hodgkin Lymphoma	7 (0.4%)	3	4	7	0	7	0	0	1	3	1	2	0	0
Hodgkin–Nodal	6	3	3	6	0	6	0	0	1	3	1	1	0	0
Hodgkin–Extranodal	1	0	1	1	0	1	0	0	0	0	0	1	0	0
Non-Hodgkin Lymphoma	36 (2.0%)	19	17	34	2	33	3	0	10	5	5	6	0	8
NHL-Nodal	26	12	14	25	1	24	2	0	4	5	4	5	0	7
NHL-Extranodal	10	7	3	9	1	9	1	0	6	0	1	1	0	1
MYELOMA	10 (0.5%)	6	4	9	1	5	5	0	0	0	0	0	9	0
Myeloma	10 (0.5%)	6	4	9	1	5	5	0	0	0	0	0	9	0
LEUKEMIA	13 (0.7%)	10	3	13	0	7	6	0	0	0	0	0	13	0
Lymphocytic Leukemia	4 (0.2%)	2	2	4	0	3	1	0	0	0	0	0	4	0
Myeloid & Monocytic Leukemia	8 (0.4%)	7	1	8	0	3	5	0	0	0	0	0	8	0
Other Leukemia	1 (0.1%)	1	0	1	0	1	0	0	0	0	0	0	1	0
MISCELLANEOUS	45 (2.5%)	26	19	44	1	30	15	0	0	0	0	0	44	0
Miscellaneous Sites	45 (2.5%)	26	19	44	1	30	15	0	0	0	0	0	44	0
Total	1828	808	1020	1730	98	1635	193	192	449	506	184	150	149	100

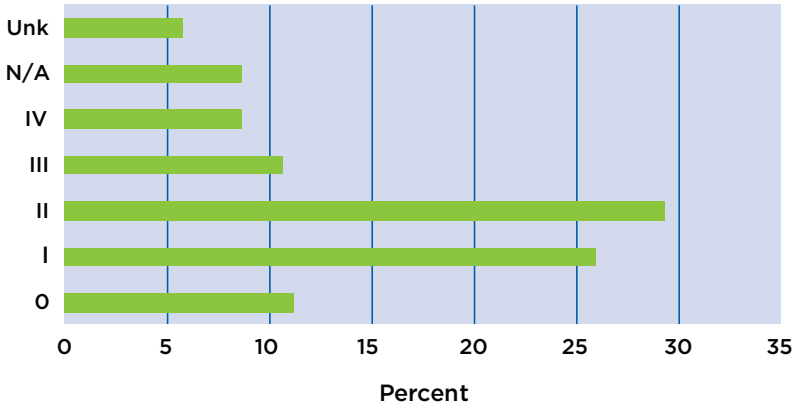
Statistics

Bon Secours SMH
2009 Age at Diagnosis

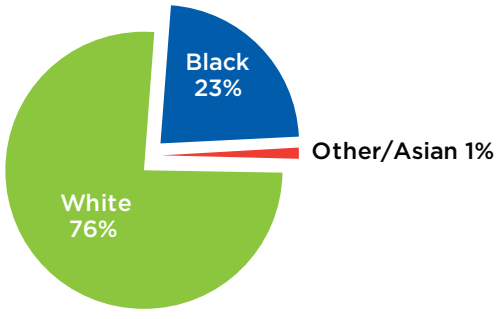


Mean=63

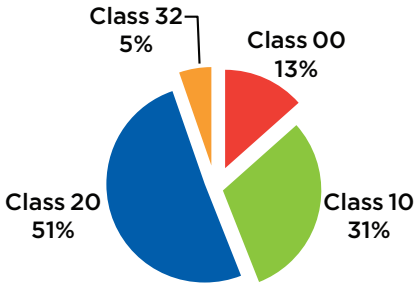
Bon Secours SMH
2009 AJCC Stage



Bon Secours SMH
2009 Race Distribution

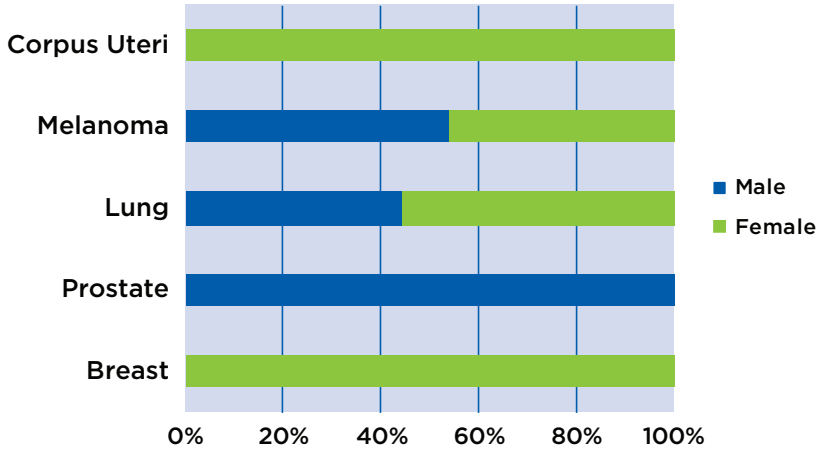


Bon Secours SMH
2009 Class of Case

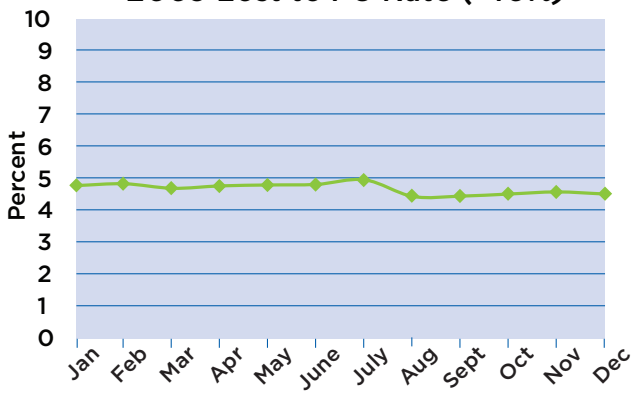


Statistics

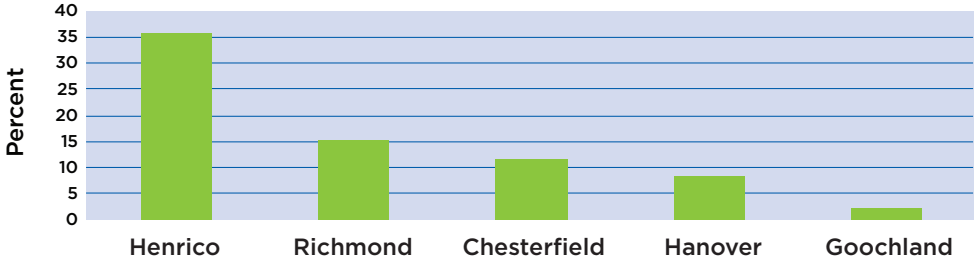
Bon Secours SMH
2009 Top 5 Sites by Sex



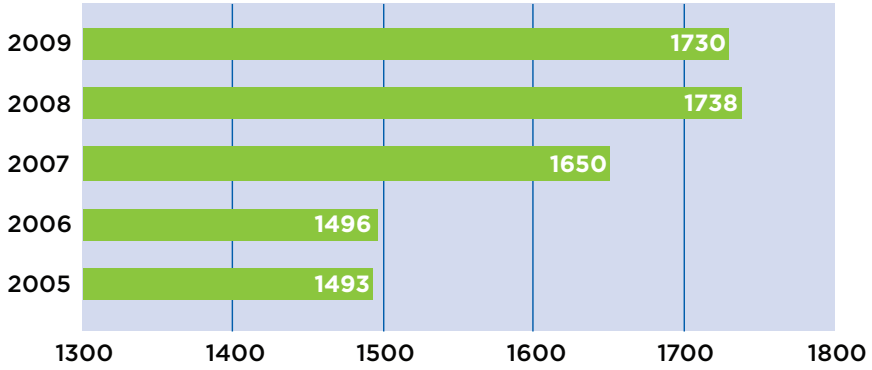
Bon Secours SMH
2009 Lost to FU Rate (<10%)



Bon Secours SMH
2009 Top 5 Counties at Diagnosis



Bon Secours SMH
Analytic Cases per Year



Cancer Care Components

CANCER REGISTRY

The Registry maintains an information database in excess of 30,000 cancer patients diagnosed and/or treated at Bon Secours St. Mary's Hospital since 1986. During the 2009 year, the Cancer Registry accessioned over 1,700 new analytic cases. Demographic information, medical history, diagnostic findings, cancer type, various extent of disease classifications, treatment and follow-up information is collected. Beginning with cases diagnosed in 2004, public law requires the cancer registry to record and follow benign CNS tumor patients. To ensure continued cancer surveillance and to provide significant end-result reporting, all analytic cancer patients are followed on an annual basis for life. Our current follow up rate has continued a perpetual rise to above 95%. The data maintained by the registry is available for use by the medical staff, hospital administration and other hospital personnel for special studies, audits and research. Data from the registry is submitted to the State Cancer Registry monthly and annually to the National Cancer Database. The registry has received commendation for error free data submissions of the most current year since required in 2003. Registry services include reporting of cancer incidence, patterns of care, benchmark comparison data and consultative services on Cancer Program Standard interpretation. Data analysis and comparison reports are also available and are exhibited at our weekly cancer conference. Included in this publication is the site specific study which contains a colorful display of data extracted from the registry database. Currently the registry is staffed by 3 cancer registry professionals (CTR's), one cancer registrar and three support staff.

CANCER CONFERENCE

The conferences, held weekly are for the benefit of the medical staff and other allied health professionals and provide physicians with a category 1 CME credit through UVA Hospital. Cases of various types of malignant diseases are selected based on special interest and associated diagnostic or therapeutic problems. There is an informal discussion of the disease process and treatment options by a multidisciplinary panel for each case presented. A total of 47 conferences and 209 cases were presented for the year 2009.

RADIATION ONCOLOGY

Radiation Oncology offers a full array of services from external beam to SRS (stereotactic radiosurgery). Serving around 500 patients at both a hospital and free standing center, we care for all adult patients. We offer HDR (high dose remote) brachytherapy, IGRT (image guided radiation therapy), IMRT (intensity modulated radiation therapy), SBRT (stereotactic body irradiation), and respiratory gating. The centers are accredited by the ACR and the JCAHO.

CANCER COMMITTEE

The Cancer Committee consists of a multidisciplinary team, which meets every other month. This standing committee serves as the policy making body of the cancer program. The Cancer Committee provides professional guidance for the Cancer Registry as well as consultation service and educational programs for the staff.

ONCOLOGY NURSING

Bon Secours St. Mary's specially trained oncology nurses work closely with the physicians to provide optimal care for their patients. The commitment of the oncology units is to meet physical, psychosocial, and spiritual needs of patients and their families. Education of Oncology nurses is an integral part of our program. Our OCNs and clinical nurse specialist plan regular in-services for the staff in the hospital caring for oncology patients. Educational programs include ONS Chemotherapy & Biotherapy Course, oncology core curriculum, pain management and specific disease review. The ONS Chemotherapy / Biotherapy course is offered twice each year.

Cancer Care Components

ONCOLOGY NURSE NAVIGATOR

Located in the St. Mary's Cancer Resource Center, the Oncology Nurse Navigator is available to meet with patients, families, and caregivers to evaluate any needs they may have surrounding their diagnosis and treatment and to help facilitate getting those needs met. Educational materials are available to patients and families to help them understand the diagnosis, treatment, procedure, and even complementary therapies. The Patient Navigator provides material appropriate to each patient/caregiver's understanding. The Navigator can also assist in financial, personal, and communication issues, identification of barriers impairing patients from receiving exceptional complete care and assisting in the resolution of such issues. She can serve as a liaison between the patient and physician as needed and is available to assist in the coordination of supportive care such as support groups and family conferences. The Navigator also has the knowledge to identify community resources that are appropriate for the individual patients. Newly diagnosed cancer patients can easily be overwhelmed with the entire aspect of healthcare and barriers that may come with it. All in all, the Patient Navigator's goal is to serve patients by helping to make their health care experience as positive as possible

CARE MANAGEMENT

The Care Management Department at Bon Secours St. Mary's Hospital takes a very active role in the daily care of individuals diagnosed with cancer as well as their families. The primary services offered are: individual needs assessment, post-hospital care planning, emotional counseling, and resource identification (American Cancer Society, financial services, etc.). These services are offered to inpatients and outpatients receiving radiation therapy and or chemotherapy. The department along with the Navigator assists with coordination of transportation by ambulance, wheelchair van, taxi, and volunteers to outpatient services, such as radiation therapy, and the outpatient infusion center. This is often an area of great concern for outpatients who are unable to drive themselves to treatment.

RESEARCH

The Cancer Care Center staff of St. Mary's Hospital is committed to helping people learn about clinical trials available to them. Our research nurse and nurse navigators maintain information on all clinical trials in central Virginia. They utilize online resources to locate clinical trials nationally for people who are interested in them. St. Mary's Hospital Department of Nursing sponsors research related to exercise and quality of life on site.

CULLATHER BRAIN TUMOR QUALITY OF LIFE CENTER

Cullather Brain Tumor Quality of Life Center is a nurse-run center opened in September 24, 2006 under the direction of Dr. Sherry Fox and in collaboration with community partner, Jack Cullather. In four years of operation the center has seen over 400 patients with non-malignant, malignant and metastatic brain tumors. The Cullather center provides free one-on-one consultation with the patient and family. In addition to the nurse director, the center also employees a patient advocate, Cathy Willis, and Lee Carter a License Clinical Social Worker who specializes in counseling services. Together, they work as a team to identify the issues a patient and family are having and connect them to the right resources. Patients receive individualized care with such things as physical, occupational, nutritional, and psychological services, equipment to help them navigate their home environment, help with financial, insurance and legal issues and strategies for coping with illness and hospitalizations. Ongoing education and anticipatory guidance related to having a brain tumor are also provided. In four years, the center has recruited and involved over 100 volunteers in center activities, created a newsletter, website and a caregiver on-line support group, conducted five fundraisers, hosted social events for patients & their families and provided them with massage therapy and respite care, developed a marketing CD to highlight our services and supported other brain tumor related activities in the Richmond area

Cancer Care Components

ONCOLOGY IMAGING & INTERVENTIONAL RADIOLOGY

The SMH Radiology Department provides the full range of diagnostic imaging studies including plain radiography, mammography, ultrasound, computed tomography (CT), magnetic resonance imaging (MRI) and nuclear medicine. Position emission tomography/computed tomography (PET/CT) and breast MRI are of particular importance to cancer patients. Commonwealth Radiology, a group practice of 29 board certified radiologists, provides the imaging interpretations. Voice recognition technology assures that final signed reports are rapidly available. All images and reports are on a picture archiving and communication system (PACS) and available for review by any physician within the hospital or in their office. Interventional radiologists perform image-guided interventions including image guided needle biopsy, peripherally inserted central catheters (PICC lines) and portacath placements.

In June the Bon Secours St. Mary's Women's Imaging Center became designated as a Breast Imaging Center of Excellence (BICOE) by the American College of Radiology (ACR).This designation is awarded only to centers that are accredited by the ACR in stereotactic breast biopsy, breast ultrasound and ultrasound-guided breast biopsy, and by the ACR or FDA-approved state accrediting body in mammography. The ACR awards this accreditation for the achievement of high practice standards after a peer-review evaluation of the practice. Evaluations are conducted by board-certified physicians and medical physicists who are experts in the field. They also assess the qualifications of the personnel and the adequacy of the facilities' equipment. This accreditation was awarded for a period of three years. There are only five BICOE designated mammography facilities in the greater Richmond area. Out of 189 mammography facilities in the Commonwealth of Virginia, only 16 are at BICOE status.

PALLIATIVE CARE

This past year, the Palliative Care service became a medical practice designed to align services with referring physicians to support the BSHSI goal of providing, holistic, comprehensive care to our patients. With this transition, the Palliative Care team currently consists of board certified Palliative Care physicians, including a Medical Director, Nurse Practitioners, Licensed Clinical Social Workers as well as Pastoral and administrative support teams.

Palliative Care is an interdisciplinary consult service that provides patient and family- centered care that focuses on the physical, emotional and spiritual needs of patients throughout the continuum of illness. Care is provided at the same time as all other medical treatments and is designed to facilitate coordination of care and patient access to information.

The vision of palliative care is that it will be a Center of Excellence for holistic, quality, compassionate care. We are known for our commitment to relieve suffering for our patients coping with a life limiting injury, all stages of serious illness or facing complex medical decisions. Care is always individualized based on the values and goals of our patients, their families and expert medical opinion.

OUTPATIENT INFUSION CENTER

The RCH Bremo Outpatient Infusion Center is located on the campus of St. Mary's in Medical Office Building South. The OPIC provides a full range of services by appointment to adult, ambulatory, self-care, patients and has an experienced and compassionate all-RN staff of nurses and a dedicated support team. In addition to routine IV medications, other services include administration of chemotherapy and patient education, administration of blood and blood products, IV antibiotics, hydration and injections. The Infusion Center has approximately 550 patient visits per month. The Bremo OPIC has received awards for achieving some of the highest staff and patient satisfaction scores in the Bon Secours Richmond Health System for the past three years.

Cancer Care Components

HOME HEALTH CARE

Bon Secours Richmond Home Care offers a comprehensive range of services to patients of all ages from infants to seniors. The programs are designed to meet the unique needs of individuals. The services provided assist the patient in achieving continuity of care when returning home and helps ease this transition with the support of trained professionals. These services are provided under the order of a physician and must meet Medicare/Medicaid or insurance guidelines. Our Home Care team offers the following services to the chronically or acutely ill patients on an intermittent basis: Home Infusion nursing, skilled nursing, physical therapy, occupational therapy, speech therapy, registered dietician, medical social worker, and home health aide services for patients in their homes. The role of skilled nursing is to assist patients and families in learning to manage their illness and medications, and also provides skilled services such as infusion therapy and wound care at home. Physical, occupational and speech therapy work with patients to facilitate their mobility and improve strength with the goal of reaching maximum functioning and independence in the home. A dietician is available to assist with an assessment of nutrition and teaching, the medical social worker helps patients and caregivers explore community resources and home health aides assist with personal care while the nurses and therapists are working with the patients. Bon Secours Home Care provides care to their patients using a holistic approach that encompasses body, mind and spirit which includes education, support, and encouragement for family members who are caring for the patient.

HOSPICE

Hospice is a special way of caring that focuses on relieving symptoms and supporting patients with a life expectancy (or prognosis) of 6 months or less. Patients and their families are the focus of care helping them to make the patients remaining days of life as comfortable and meaningful as possible. Patients continue to receive care from their own physicians but with the added support and comfort from the Bon Secours Hospice team. Team members visit patients and their families regularly to give care, answer questions, and teach new care giving skills. Medical and pharmaceutical help is available 24 hours a day, 7 days a week. Emphasis is placed on the physical, psychosocial, emotional, and spiritual aspects of care. The needs of Bon Secours Hospice patients and their families are met by using an interdisciplinary team approach of social workers, chaplains, registered nurses, hospice aides, and hospice physicians/medical doctor. The care can be provided in the patient's home, nursing facility, assisted or independent living facility. Hospice is a Medicare Benefit that includes routine home care, inpatient symptom management, respite and continuous care. Medicaid and some private insurance provide hospice coverage as well. Trained volunteers are available to patient and families when they enter the program. Any person within a 60-mile radius of Bon Secours St. Mary's Hospital can be accepted into the program. The decision to enter the program is mutually agreed upon by the patient, family, and their physician. Hospice care includes bereavement follow-up with the family for up to 13 months after the death of the patient.

Cancer Care Components

MISSION SERVICES

The integration of Mission Services and the BSRHS Cancer Program is accomplished in various ways. Chaplains from Spiritual Care Services routinely give spiritual support to cancer in-patients and their families, as well as provide crisis intervention as needed. Additionally, members of Ministry and Community Health Outreach, Faith Community Health Ministry, Ethics, Holistic Health, and Cross-Cultural services provide consultation, staff support, public education and assistance with advance directives both within the hospital and the community. A Faith community Nurse (Parish Nurse) Coordinator attends the VA Breast Cancer Coalition meetings, and they also host awareness-raising "Pink Teas" in their community parishes.

The Every Woman's Life (EWL) program enrolls and screens eligible indigent women for breast and cervical cancer. In order to qualify for the program's free services, a woman must be age 40 – 64, uninsured or underinsured at 200% of the federal poverty level or less. Every Woman's Life can enroll women between the ages of 10–9 years of age with abnormal Pap tests or breast lumps as funding allows. Women with abnormal findings are referred for diagnostic work-up and case management services. If cancer is detected, women become eligible for enrollment in Medicaid. Since EWL's inception at Bon Secours in 2003, the program has enrolled 1607 women, 66% of whom are from minority populations; performed 2686 mammograms, 1410 Pap tests, and diagnosed 52 women with breast cancer.

Finally, the Administrative Director of Community Health Advocacy is a member of the VA Cancer Plan Action Coalition (CPAC) and was one of five editors of the Virginia Cancer Plan 2008–2012. CPAC's primary goals are to reduce the impact of cancer, facilitate collaborative partnerships in Virginia and promote and assist with implementation of the state cancer plan. George Parker, MD, also represents BSRHS in this endeavor.

Highlights & Quality Improvements

HIGHLIGHTS:

- New Electronic Medical Record System (ConnectCare).
- New Stereotactic Biopsy unit purchased.
- Provide access to breast and cervical cancer screening to the Bon Secours Richmond Community Hospital.
- Brain Tumor Quality of Life Center started the Healing Vibrations Program offering complimentary or integrative therapies to patients.
- Breast Program Leadership subcommittee formed to work towards NAPBC accreditation.
- Space for Lymphedema clinic expanded.
- Chemotherapy certification classes to accommodate MRMC and SFMC.

QUALITY IMPROVEMENT:

- The rate of documentation of breast cancer patients receiving hormonal therapy increased.
- The rate of documentation of patients receiving radiation therapy after breast conserving therapy increased to 90%.
- The rate of documentation of adjuvant chemotherapy was considered or administered for Stage III colon cancer patients is 100%.
- Pedometers provided for patients to improve home based excerise.
- Lymph node sampling in colorectal patients reached benchmark.
- Oncology Program rotation for nursing students developed.
- COPN approved for stereotactic Radiosurgery (SRS).

Oncology Services & Acknowledgements

Cancer Registry	281-8259
Care Management	281-8443
Cullather Brain Tumor Quality of Life	287-7329
Home Care	627-5200
Hospice	627-5360
Lymphedema Care	281-8216
Medical Oncology	287-7804
Nutrition therapy	359-9355
Oncology Clinical Nurse Specialist	287-7201
Oncology Nurse Navigator	281-8314
Oncology Resource Center	287-7809
Outpatient Infusion Therapy	287-7227
Pain Management	281-8282
Palliative Care	287-7875
Pastoral Care	281-8393
Radiation Oncology	281-8350
Research/Clinical Trials	287-7418
Social Services	281-8445
Support Groups	359-9355
Women's Imaging Center	287-7070
Oncology Information Call Line	359-9355

A special thanks to the following departments for their assistance in the compilation of this report and the Cancer Registry: Health Information, Radiation Oncology, Laboratory/Pathology, Radiology, Dietary, Volunteer Office, Medical Staff Office, Environmental Services, and Nursing Administration.

A special thanks to Aaron Schwitzer, a Bon Secours St. Mary's volunteer, without whose help the Cancer Registry could not function.

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The Cancer Registry is located in the Medical Office Building South of St. Mary's Hospital, Suite 208.