

CVMC Cancer Committee

In the latter part of 2009, a small work group was brought together to discuss seeking American College of Surgeons (ACoS), Commission on Cancer (CoC) accreditation as a Community Hospital Cancer Program. In early 2010, members were added to this collaborative multidisciplinary group, which became the Central Vermont Medical Center (CVMC) Cancer Committee. The committee was charged with evaluating and building upon existing services, while working towards its goal of achieving CoC accreditation, to ensure that our cancer patients have access to a full scope of services that support their needs.

The CVMC Cancer Committee presently supports a number of initiatives to monitor and improve multidisciplinary cancer care processes. Over the past year, the committee has made great strides towards achieving American College of Surgeons cancer program accreditation. It has been a busy year for the committee with completion of a number of process improvement initiatives. Our central focus has been to coordinate our oncology services as part of an ongoing collaborative effort to benefit and meet the needs of our patients.

CVMC promotes a number of prevention, early detection and educational programs through Healthy Community Program Offerings. Our partnerships with Vermont-based community programs have strengthened our cancer program, as we strive to provide comprehensive, multidisciplinary care for our cancer patients. Community Outreach activities include Tobacco Cessation Workshops that enrolled 156 participants as of the end of November and prostate cancer screenings in October with 33 men screened. In addition, four women's clinics were sponsored for uninsured or underinsured women, along with free mammograms through the Komen Project.

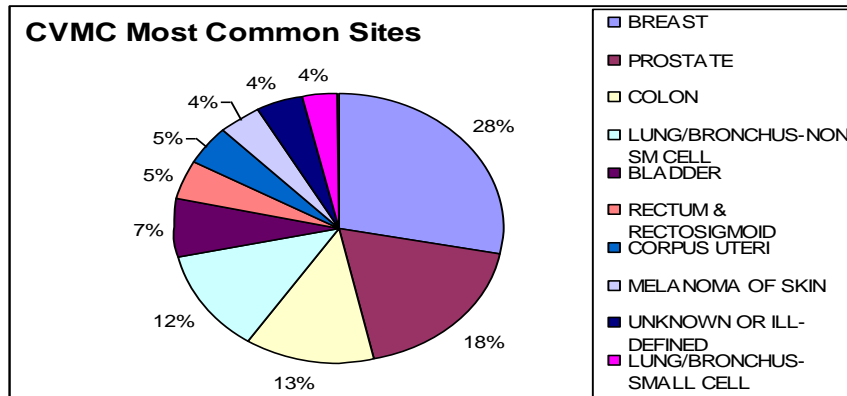
The Cancer Committee leads the medical center's cancer program by setting program goals, monitoring program activity, evaluating patient outcomes and improving care. Ongoing monitoring and evaluation is central to the success of the program. In part, this can be achieved through clinically meaningful analyses of cancer patient diagnoses, treatment and outcomes to ensure quality care. Therefore, as this year draws to a close, we have chosen to focus on the care of colon cancer patients, using data collected by the medical center's cancer registry.

The committee plans to continue its collaborative effort in 2011, to further enhance our cancer program to best meet the needs of the patients in our community. January 2011 will bring the start of our prostate brachytherapy program and the addition of a second monthly tumor board. Outreach activities will be assessed, offerings will continue through our Healthy Community Program and with participation in the Stowe Weekend of Hope and the Relay for Life, as was the case in 2010. Our goal to obtain CoC accreditation as a Community Hospital Cancer Program will serve to further enhance our cancer program and its quality of patient care.

Colon Cancer at CVMC

There are presently 4718 cases accessioned in the CVMC cancer registry, the hospital’s computerized information system which is used as a resource for the investigation of cancer and its causes. During calendar year 2009, 308 new cancer cases were accessioned into the registry. To date, the most common cases seen at CVMC were breast, prostate, colon, lung and bladder cancer.

Table 1: CVMC Most Prevalent Sites:



Colon cancer is the third most prevalent cancer diagnosed at CVMC, accounting for 13 percent of the malignancies entered into the cancer registry database since the medical center began collecting data on January 1, 1994.

At CVMC, thirty-five cases of invasive colon cancer were diagnosed and/or treated during 2008 and 2009 involving thirty-one patients, as two patients had more than one reportable site of colon cancer. Four of the patients were diagnosed by screening colonoscopy. Of the thirty-one patients diagnosed at CVMC during this period, 3 percent were diagnosed before the age of 50 years and 58 percent of the patients were older than 74 years of age.

A March 2010 Journal of Oncology Practice review of cancer registry records from 2003 to 2004 in Maine, New Hampshire and Vermont included an analysis of 2,848 colon cancer patients.¹ The collaborative study provides a regional benchmark for comparison of CVMC’s colon cancer registry data. The study found that 7.4 percent of the study patients were diagnosed before the age of 50 years, a somewhat higher number than for CVMC, and 42.6 percent of the study patients were older than 74 years of age, compared to 58 percent beyond the age of 74 years at CVMC.¹

Colon cancer is the third most common cancer diagnosed in men and women in the United States per published Surveillance Epidemiology and End Results (SEER) 2003 – 2007 rates, as well as in the state of Vermont for the same reporting period.² During 2007, there were 197 cases of invasive colon cancer diagnosed state-wide, with invasive colon cancer incidence rates by Vermont County as shown in Table 2.

Table 2: Vermont Incidence by County:

Invasive Colon Cancer Incidence by Vermont County 2007 (Number of Cases)							
Addison	11	Essex	--	Orange	8	Windham	13
Bennington	19	Franklin	16	Orleans	9	Windsor	15
Caledonia	14	Grand Isle	--	Rutland	26		
Chittenden	38	Lamoille	--	Washington	16		
-- Rates based on 5 or fewer cases not individually calculated							
Incomplete reporting by Veteran's Administration hospitals in 2007 due to policy change							
Vermont Department of Health, Burlington, VT, December 13, 2010							

Treatment

Surgery is the most common treatment for localized colon cancer. Of the thirteen cases of Stage 1 and Stage 2 colon cancer diagnosed at CVMC, all were treated with surgical resection (Table 3). Poor prognostic features are considered to determine if adjuvant therapy should be administered to Stage II patients. During the time period reviewed none of the CVMC Stage II patients received adjuvant chemotherapy.

The CoC maintains web-based benchmarking databases for use by its accredited cancer programs to offer providers collaborative data in an effort to ensure quality, multidisciplinary and comprehensive cancer care. The CoC has developed the following quality measure related to Stage III colon cancer: Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer.³ Likewise, National Comprehensive Cancer Network (NCCN) Guidelines recommend 6 months of adjuvant chemotherapy for patients with Stage III (T1-4, N1-2, M0) resected colon cancer.⁴

Table 3: CVMC Colon Cancer Treatment Summary:

CVMC First Course Treatment Summary 2008 & 2009 Cases	Stage I	Stage II	Stage III	Stage IV	Unknown	TOTAL
Surgery & Chemotherapy	0	0	4	6	0	10
No Treatment	0	0	0	1	4	5
Surgery Only	7	6	4	0	1	18
Chemotherapy Only	0	0	0	1	1	2
TOTAL	7	6	8	8	6	35

In the Northern New England report, adjuvant chemotherapy was given to 57.3 percent of Stage III colon cancer patients with small rural or large rural residences compared to 64.7 percent in urban areas.¹ At CVMC, four of eight Stage III patients received chemotherapy, suggesting a high rate of compliance with the CoC recommendations (Table 3). Of the eight Stage III patients at CVMC, all were considered for chemotherapy. Of those who did not receive adjuvant chemotherapy, one patient was over the age of 80, two declined the recommendation and one declined the recommended medical oncology consult. The number of colon cancers in 2008 and 2009 at CVMC

amount to small numbers for comparison and it is likely that since 2003-2004 the CoC initiatives may have resulted in more patients receiving chemotherapy.

The CoC also recommends the removal and pathological examination of at least 12 regional lymph nodes for resected colon cancer.³ This is consistent with the NCCN Guidelines recommendation that a minimum of 12 lymph nodes be examined to establish N stage.⁴ It is felt the ratio of metastatic to examined lymph nodes was a significant prognostic factor.⁴ As cited in the Northern New England report, the standard of the removal of at least 12 lymph nodes during the surgical procedure was met in 42.8 percent of Northern New England patients versus 24 of 28 patients or 86 percent at CVMC, indicating our strong performance in keeping with this recommended practice (Table 4).¹

Table 4: CVMC Regional Lymph Nodes Removed with Resection

Regional Lymph Nodes Removed 28 Cases Resected	Stage I	Stage II	Stage III	Stage IV	Unknown	TOTAL
12 or More Lymph Nodes Removed	5	6	7	5	1	24
Less than 12 Lymph Nodes Removed	2	0	1	1	0	4

During 2008 and 2009, two Stage IV colon cancer patients diagnosed at CVMC were entered on colorectal studies. CALGB 80405 is for patients with untreated metastatic adenocarcinoma of the colon or rectum. The two patients randomized to this study received treatment with FOLFOX and Cetuximab. New information requiring K-RAS determination, the testing of tumor tissue for gene mutation, changed eligibility requirements. Treatment with Cetuximab was discontinued for one of the patients after specimen submission for K-RAS determination, as this therapy was unlikely to yield an overall survival benefit for the patient.

In summary, the diagnosis and management of colon cancer at Central Vermont Medical Center exemplifies our commitment to quality care. Through ongoing assessment of our program initiatives and meaningful analyses of our clinical practices as they relate to recognized evidence-based national treatment practices, we ensure comprehensive, quality care is available to our patients. Our cancer program objectives are consistent with CVMC’s mission to work collaboratively to meet the needs and improve the health of the residents of central Vermont.

CVMC Cancer Committee 2010

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References/Data Sources

¹ Oncology Care in Rural Northern New England (Collaborative Group). *Journal of Oncology Practice*, Vol. 6, Issue 2, March 2010.

² Surveillance, Epidemiology, and End Results (SEER): The SEER Program collects and publishes cancer incidence and survival data.

³ American College of Surgeons, Commission on Cancer, National Cancer Data Base (NCDB), Quality Tools for Cancer Programs. www.facs.org/cancer/ncdb/qualitytools.html

⁴ National Comprehensive Cancer Network, NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines), Version 2.2011, Colon Cancer.