CancerCare of Maine

Report on Cancer 2009, 2010

Bringing Hope to Life
Research to Cures

TOGETHER We're Stronger

Eastern Maine Medical Center℠
Inspiring confidence in care

EMHS MEMBER

EXECUTIVE DIRECTOR'S REPORT

Allen L'Italien, RN

This past year has been most memorable with our move to our new facility in Brewer – the Lafayette Family Cancer Center – home to radiation and medical oncology, hematology, laboratory and imaging services, a retail pharmacy, a café, two "resource corners" and even a gift shop. The beautiful new facility provides great comfort to our patients and families.

Champion the Cure - the campaign theme of "Who Do You Know Who Had Cancer?" was prompted by the unfortunate fact that Maine has in recent years either led or been near the top of states with the highest cancer incidence. People were asked to consider giving in memory or in honor of their friends, colleagues and loved ones who have been challenged by cancer. And they were inspired to support the creation of an environment where beautiful views, the latest and most beneficial technologies and the most talented physicians and staff would come together to provide the best possible place in which to receive cancer treatment and gain access to cutting edge research.

The Campaign's Executive Committee was both inspired and inspiring giving generously of their time, ingenuity and financial resources. Bill Horner, MD along with his spouse, Cookie Horner, RN, acted superbly as campaign co-chairs, guided by the wisdom of honorary chair, Clif Eames. At a time when the U.S. economy was at its most challenging during the winter of 2008/2009, Danny and Carla Lafayette stepped forward to pledge $2 million, the largest gift in the history of EMMC. Their commitment helped to ensure the campaign's success.

The campaign concluded in July of 2010, with a special celebration outdoors at the Lafayette Family Cancer Center. 3,091 gifts totaling $12.5 million were given by individuals, corporations and foundations from across the country to support the advancement of cancer research and treatment. This final tally surpassed the $9.5 million campaign goal by $3 million and doubled EMMC's previously largest campaign total. As executive director of CancerCare of Maine, on behalf of our patients, their families, our community, our physicians and staff, I want to personally thank each and every person who contributed to our success - bringing new excellence in care to our region.

The new center has been a key attraction in the recruitment of 6 new medical and radiation oncologists vital to care of our patients. The significant leap in technology has already demonstrated great advantages for some patients. From high dose radiation treatment delivered robotically across a few days rather than complex surgery or many weeks of radiation therapy to treatment delivered in 4 or 5 minutes rather than 20 minutes – the benefit to patient comfort and care is enormous. Efforts to expand clinical research are well underway. We are privileged to be the recipient of a Partridge Foundation Grant to set up multidisciplinary care utilizing translational (bench to patient) research.

I am privileged to recognize the hard work by all the physicians and staff who were in the forefront of upgrading their skills and education so that we are able to take full advantage of the technological advantages that are not available in any other cancer center in Maine. We most certainly appreciate the trust that the patients, families, and communities place in us for their care at such a critical time in their lives.

CANCER LEADERSHIP COMMITTEE 2010

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Patty Miles, RN, Manager, Inpatient Oncology
Renee Stefanik, RHIT, CTR
Lead Cancer Registrar
Nadine Tasker*, RN
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Maggie Wiken, Manager, Budget - EMMC

CANCER COMMITTEE CHAIR REPORT

Paul Szal, MD

The cancer program at Eastern Maine Medical Center found itself very busy during 2009 and 2010 as it built its cancer center, prepared for the transition of service, took occupancy of its new home and opened its doors to deliver state-of-the-art-care to citizens of Maine across the region. As a result you will find that this report combines information relevant to the care of our patients during each of those years. I would like to take this opportunity to thank members of the community, physicians and staff at Eastern Maine Medical Center who made it all possible and make it work so well for our patients every day.

SERVICE
In 2008, 84% and in 2009, 89% of those diagnosed with cancer underwent some form of surgery. At EMMC in 2008 there was a 9% decline in the number of surgical procedures and 6% decline in surgical patients; in 2009 volume rebounded above the 2007 levels with surgical procedures up 26% (1902 total) and patients 16% (1311 total). During 2010, 1620 patients and families began care in medical oncology (MO); 728 in radiation oncology (RO) and 18 in pediatric oncology. Volume growth continues in each area. Care on Grant 6 Oncology has shifted from admissions by medical oncologists alone to reliance on internal medicine hospitalists for general oncology admissions with medical oncology maintaining consultation and responsibility for chemotherapy and leukemia admissions daily. The arrangement offers best patient management and care. With our move to the Lafayette Family Cancer Center (LFCC) a consultation service was added by EMMC's surgeon's specializing in orthopedic oncology increasing the timeliness of referrals and effectiveness of care. Behavioral medicine consultation addressing treatment related anxiety and cognitive changes was added to help expand the base support services available through social work, chaplaincy, patient service advocates and volunteers. Along the continuum, in 2009 strengthened by the addition of two more physician providers EMMC's Palliative Care Consultation team completed 30% more consultations (1018) than in 2008; in 2010 service to those with a cancer diagnosis increased by 15%. Expansion to Brewer is set for 2011.

NEW TECHNOLOGY –
With the opening of the Lafayette Family Cancer Center (LFCC) in Brewer came the opportunity to bring to the region and the State advanced technology - Stereotactic Radio Surgery (SRS) and Stereotactic Body Radio Therapy (SBRT). As 2010 draws to a close using SRS we have treated 14 patients with brain tumors; using SBRT we have treated 2 patients with lung cancer. Each modality spared the patient either more complicated surgery or more prolonged radiation therapy. As we increase utilization of rapid arc technology it will not only enhance the quality of care, but the comfort of the patient as well. Additionally we are beginning to use PET-CT in radiation therapy treatment planning – taking full advantage of its co-location in the new cancer center. Use of each technology represents a step forward in the quality of care we are now able to deliver to those throughout this region and in the State of Maine.

QUALITY
Our commitment to excellence includes peer review, comparison to national standards and program enhancements to assure our patients receive the best care possible. Each year we review the four major cancer sites, comparing stage at diagnosis and survival with most currently available data from the National Cancer Data Base (NCDB). For cases diagnosed in 2007 when comparing EMMC with NCDB data for stage at diagnosis for breast, colon, and prostate cancer rates were the same. We had a higher rate of diagnosis of stage I lung cancer and a lower rate of stage IV when compared to the state or NCDB – a favorable trend. (Our data from 2008 and 2009 are similar.) Evaluating 5-year survival rates requires reviewing the most current nationally comparative data - 1998 to 2002. For those diagnosed with breast, colon, lung or prostate cancer, the 5-year survival rate of those cared for at EMMC matched both national and state levels for each stage of diagnosis. We also comply with national standards set for the management of both breast and colo-rectal cancers.

In this report you will find our focus on thyroid cancer. I want to thank Dr. Waddell personally for his excellent report. I encourage you to take a moment to review his work.

CANCER REGISTRY REPORT

Renee Stefanik, RHIT, CTR

The Cancer Registry is an integral part of the cancer program at EMMC. Cancer registrars develop a case abstract (summary) for each person diagnosed and/or receiving his or her first course of treatment at EMMC. They complete annual lifetime follow-up – monitoring diagnostic and treatment results. Successful follow-up provides accurate data for calculating survival rates. EMMC's lifetime follow-up is at 86% for cases since 1998 (ACOS-COC standard is 80%); 92% for cases diagnosed within the past 5 years (ACOS-COC standard is 90%).

Physicians utilize AJCC Staging to stratify patients and to determine optimal treatment decisions. According to ACOS-COC standards, our registrars take this one step further to establish a collaborative stage. EMMC physician compliance with staging completion requirements has been consistently above the 90% standard without prompting at 93%, with registrar follow up at nearly 100%.

Tables included reflect cancer case accessions, frequency, stage of disease at presentation and prevalence for 2008 and 2009 at EMMC.

Per regulatory compliance, data are collected, maintained, and reported to the Maine State Cancer Registry and the National Cancer Data Base (NCDB). Submissions were on time and completed with a high degree of accuracy. Increasingly the Registry is called on to share aggregate data – requiring nearly 10% of one staff person's time. The registry was key in supporting Champion the Cure and in our expanding clinical research program.

Case Conferences held weekly provide physicians with the opportunity to prospectively discuss diagnostics and treatment options for their patients. All major cancer sites are reviewed. Conferences reviewing breast biopsy results and thoracic cases are held weekly. Twenty percent of our analytic cases were reviewed in both 2008 (364) and 2009 (339) with 99% presented prospectively. (ACOS-COC standard is 10%.) Participation is open to medical and allied health professionals, both on site and via interactive television connection - NNETS. If interested in participating or making a referral, contact us at 973-7483.

Primary site - Frequency Distribution: 2009 Accessioned Cases

Primary Site	Total - 2009	Male	Female	% Analytic	# Analytic	Stage 0	Stage I	Stage II	Stage III	Stage IV
Oral	40	32	8	2%	37	0	4	4	5	21
Esophagus	20	17	3	1%	19	0	2	6	4	6
Stomach	18	15	3	1%	16	1	1	2	4	5
Colon	193	94	99	10%	173	4	14	58	54	43
Rectal	99	50	49	5%	82	1	20	22	23	14
Liver & Biliary	42	21	21	2%	37	0	9	5	5	13
Pancreas	34	14	20	2%	30	0	4	5	3	17
Larynx	19	12	7	1%	18	1	5	2	2	7
Lung & Bronchus	364	195	169	21%	350	1	100	33	93	121
Mesothelioma	5	4	1	0%	5	0	0	2	2	0
Bones & Joints	2	2	0	0%	1	0	1	0	0	0
Soft Tissue	13	8	5	1%	10	0	3	3	0	1
Melanoma	54	35	19	3%	43	9	11	6	13	4
Breast	348	3	345	19%	325	63	143	76	32	10
Cervix	10	0	10	0%	8	0	2	2	2	1
Uterus	44	0	44	2%	39	0	17	5	10	6
Ovary	12	0	12	1%	10	0	2	0	4	4
Prostate	197	197	0	10%	163	0	0	116	31	16
Testis	6	6	0	0%	6	0	3	1	2	0
Bladder	66	52	14	4%	61	25	12	10	3	11
Brain & CNS	43	23	20	2%	35	0	0	0	0	0
Thyroid	31	10	21	2%	28	0	23	2	0	2
Lymphoma	111	62	49	6%	96	0	22	14	23	35
Myeloma	19	9	10	1%	13	0	0	0	0	0
Leukemia	62	45	17	3%	53	0	0	0	0	0
	1852	906	946	98%	1658	105	398	374	315	337
Other	50	40	10		37					
Total	1,902	946	956		1,695	110	406	341	288	326

CANCER OCCURRENCE

Accessioned (New to EMMC) Cancer Cases: Analytic /Non-Analytic Comparison

	2006	2007	2008	2009
Total Analytic Cases	**1719**	**1834**	**1791**	**1695**
Cancer diagnosed and/or treated @ EMMC	943	939	910	881
Cancer diagnosed elsewhere with first treatment @ EMMC	776	895	881	814
Total Non-Analytic Cases	**205**	**180**	**151**	**207**
Cancer diagnosed & treated elsewhere; follow up @ EMMC				
Total Accessioned Cases	**1924**	**2014**	**1942**	**1902**

2008 and 2009 Most Prevalent Analytic Cases at Eastern Maine Medical Center (EMMC) Compared to American Cancer Society (ACS) Estimates

	EMMC Analytic (actual)				ACS Estimates	
Site	2008		2009		2009	
Lung	357	18%	350	18%	219440	15%
Breast	333	17%	325	17%	192370	13%
Prostate	231	12%	163	9%	192280	13%
Colo-Rectal	247	13%	255	13%	146970	10%
Lymphoma	87	4%	96	5%	65980	4%
Leukemia	66	3%	53	3%	44790	3%
Bladder	35	2%	61	3%	70980	5%
Melanoma	42	2%	43	2%	68720	5%
Uterus	38	2%	39	2%	42160	3%
Pancreas	30	2%	30	2%	42470	3%
Top Ten	1466	75%	1572	74%	1086160	73%
Total Cases	1942		1902		1479350	

Primary site - Frequency Distribution: 2008 Accessioned Cases

Primary Site	Total - 2008	Male	Female	% Analytic	# Analytic	Stage 0	Stage I	Stage II	Stage III	Stage IV
Oral	44	34	10	2%	40	3	10	4	2	19
Esophagus	24	23	1	1%	23	1	3	4	4	8
Stomach	32	23	9	2%	32	0	4	3	5	13
Colon	174	97	77	9%	158	2	32	55	40	26
Rectal	92	63	29	5%	89	0	23	22	24	17
Liver & Biliary	15	11	4	1%	11	0	3	1	2	4
Pancreas	33	16	17	2%	30	0	1	9	2	16
Larynx	19	14	5	1%	17	2	4	2	2	7
Lung & Bronchus	372	191	181	20%	357	0	79	26	87	147
Mesothelioma	10	6	4	1%	10	0	1	2	2	3
Bones & Joints	1	0	1	0%	1	0	0	1	0	0
Soft Tissue	11	5	6	1%	9	0	2	0	2	0
Melanoma	48	28	20	2%	42	10	17	8	6	0
Breast	349	9	340	19%	333	64	140	89	27	9
Cervix	4	0	4	0%	4	0	1	0	2	1
Uterus	39	0	39	2%	38	0	26	3	6	2
Ovary	24	0	24	1%	18	0	2	2	9	4
Prostate	255	255	0	13%	231	0	0	173	38	12
Testis	11	11	0	1%	11	0	8	2	0	0
Bladder	42	37	5	2%	35	12	6	5	4	8
Brain & CNS	55	21	34	3%	52	0	0	0	0	0
Thyroid	19	3	16	1%	19	0	12	3	2	1
Lymphoma	98	55	43	5%	87	0	15	19	15	36
Myeloma	32	16	16	2%	28	0	0	0	0	0
Leukemia	72	40	32	4%	66	0	0	0	0	0
	1875	958	917	97%	1741	94	389	433	281	333
Other	67	26	41		50					
Total	1,942	984	958		1,791	96	395	404	261	324

BREAST AND OSTEOPOROSIS CENTER

Elaine Chambers, RN, MS

The Breast and Osteoporosis Center is very proud to be designated as a Breast Imaging Center of Excellence through the American College of Radiology for the third consecutive year. To receive the honor we must meet all qualifications along with proven quality standards. There have been many exciting changes at both locations of the Breast and Osteoporosis Center. Both sites offer FDA certified and ACR accredited high quality digital mammography with all of our mammograms receiving a CAD review. We continue to provide same day results for our diagnostic mammography patients at the State Street location.

In September of 2009, the Breast and Osteoporosis Center's screening center on Union Street moved from one end of the building into the beautiful newly renovated Imaging Center located at the other end of the Healthcare Mall. With this move we expanded our hours, capacity and the ability to perform bone density exams. This allows our patients to have both exams scheduled back to back while enjoying the easy access.

The Breast and Osteoporosis Center Nurse Educators were among the first in the country and in Maine to become Certified Breast Care Nurses through the Oncology Nursing Society. Joint projects between our Nurse Educators and CCOM Research have helped many women participate in clinical research and tissue banking.

Under the leadership of Susan O'Connor, MD, Medical Director of the BOC, our Breast Diagnostic Clinic continues to meet the needs of many of our patients from all over our region. This popular clinic provides expanded service at the time of visit for many patients.

Early detection is still the best tool in the battle against breast cancer. We remain committed to community education. Through Caring Connections, a joint program of EMMC and the Bangor Y, we offer community education on breast and cervical cancer and osteoporosis. We assist low-income women to access breast and cervical health care. Outreach programs extend into eight Maine counties. Caring Connections support groups have expanded and now include a new group for young women survivors of breast cancer. In 2010 we said goodbye and best wishes to retiring long term director of Caring Connections, Ro Legasse and welcomed the new director, Suzanne Brunner.

The Prosthetic and Apparel Shop located in BOC on State Street transferred the headwear and hairpiece service to Whiting Hill Pharmacy. Located in the new Lafayette Family Cancer Center in Brewer it provides service closer to patients.

CLINICAL RESEARCH

Thomas Openshaw, MD

Recent advances in cancer treatment have provided a large number of new drugs which better target cancer cells with increased efficacy and often with decreased side effects. New knowledge about the specific genetic profile of cancers has allowed us to understand how best to use these new agents to treat individual patients. The use of cancer gene profiling to better tailor the treatment to the specific patient's needs is known as personalized medicine.

Translational research is the use of genetic profiling and other laboratory research to develop better cancer treatments; to allow better 'personalization' of cancer treatment. Ongoing clinical trials aim to further define the best treatment for cancer based on the pattern of gene activity found in specific tumors.

It is very important that citizens in our region have access to these clinical trials, which make new agents accessible to Maine patients. When patients participate, they may receive a treatment which may be more effective in treating their cancer. When patients from Maine participate, they make it more likely that the new treatments developed will be effective for other Maine citizens in the future.

CancerCare of Maine expanded its clinical research program to bring the benefits of clinical trials to Maine citizens. We have over 30 trials open for participation. Many study the gene profiles of cancers to determine the best treatment for each individual. These clinical trials are the same trials as are available in university cancer centers across the United States and Canada. This assures that patients in our region have excellent access to the most advanced and current treatment available. A new partnership between CancerCare of Maine and the Harold Alfond Center for Cancer Care in Augusta will make these clinical trials available to patients in central Maine, as well.

Every new patient at CancerCare of Maine is carefully reviewed to determine whether a clinical trial may be right for them. We also consider a clinical trial each time there is a change in cancer treatment. This has allowed many more patients to participate in clinical trials. In the last two years, participation in clinical trials has increased by 35%. We are confident that clinical trial participation will result in better treatment of our patients now and in the future, as more personalized treatments are made available through this research. For information contact us at **973-4249.**

FOCUS: THYROID CANCER

Brad Waddell, MD, FACS

Background
The thyroid gland is located in the middle of the neck in front of the trachea (windpipe). The gland is shaped like a butterfly with a right and left lobe connected by a thin strip (isthmus) that crosses the trachea. The thyroid is an endocrine gland with the follicular cells of the gland making thyroid hormone which helps regulate the important metabolic functions such as heart rate, body temperature and energy level. The parafollicular cells (C cells) make calcitonin which works with parathyroid hormone to regulate the body's calcium levels.

Thyroid Cancer
It is estimated that almost 45,000 men and women will be diagnosed with thyroid cancer in the United States in 2010. Approximately 1700 will die from the disease in 2010. Women are affected more than men accounting for three quarters of new cases.

There are four main types of thyroid cancer:

Papillary cancer is the most common and accounts for 70-80% of all thyroid cancers. It occurs in women 2-3 times more commonly than men with a median age at diagnosis between 30 and 50. Papillary thyroid cancers account for 90% of radiation induced thyroid cancers; are familial in approximately 3% of patients. The overall cure rate for papillary cancer is very high especially for small cancers in young patients.

Follicular cancer of the thyroid is the next most common thyroid cancer accounting for 10-15% of cases. The female to male ratio is 3:1 and the mean age of presentation is 50. The overall cure rate is high as with papillary cancers.

Medullary thyroid cancer accounts for 5-10% of thyroid cancers. Unlike papillary and follicular thyroid cancers, medullary cancers are neuroendocrine tumors arising from the parafollicular cells of the thyroid. Approximately 25% of medullary thyroid cancers are hereditary.

Anaplastic thyroid cancer is the least common (1-2%) and most deadly. Unlike the other types of thyroid cancer, anaplastic cancer affects males more than females and typically presents at a later age (after 65). Most patients have metastatic disease at the time of diagnosis and survival is typically less than one year even with aggressive treatment.

Risk Factors
Radiation is one of the most well known risk factors for the development of thyroid cancer. The thyroid gland of children is especially sensitive to radiation. In the past, radiation was used to treat benign entities such as acne and enlarged tonsils. Many patients treated in this manner went on to develop thyroid cancer later in life. In addition, exposure to nuclear fallout from accidents such as Chernobyl and intentional use (e.g. Hiroshima and Nagasaki) has been linked to increased thyroid cancer rates.

Genetics play a role in some thyroid cancers with 20-25% of medullary thyroid cancers resulting from an inherited abnormal gene. Genetics appear to play a smaller role in other thyroid cancer subtypes. For reasons which are unclear, gender appears to play a role with both benign thyroid nodules and thyroid cancers being three times more common in women than men.

Staging and Treatment
Thyroid cancers are staged using the AJCC (American Joint Commission on Cancer) staging system. Relevant factors include size of the tumor, direct extension of the tumor beyond the thyroid, spread to regional lymph nodes and metastases to distant sites. Unique to the staging of papillary and follicular thyroid cancers, the age of the patient is a component of the staging system. This is in recognition of the fact that younger patients (<45) have excellent survival rates with differentiated thyroid cancers.

Treatment of thyroid cancer includes surgery, radioiodine therapy, hormonal therapy and external beam radiotherapy. Surgery is the primary mode of treatment for the vast majority of thyroid cancers. Total thyroidectomy is usually the appropriate procedure but unilateral lobectomy and isthmusectomy may be acceptable in certain patients – e.g. those with well differentiated, small (<1-2cm) tumors confined to one lobe of the gland. Indications for regional lymph node dissection vary and are based upon tumor histology, clinical findings (physical exam and/or ultrasound) and surgeon/patient preference.

Radioiodine (I-131) has been used in the management of differentiated (papillary and follicular) thyroid cancers since the 1940s. Radioiodine is taken up and concentrated by thyroid follicular cells and then causes direct radiation induced cytoxicity. In patients with differentiated thyroid cancer, radioiodine can be used (post-thyroidectomy) for imaging or treatment purposes depending upon the dose given. Most commonly, radioiodine is used therapeutically for adjuvant ablation of residual thyroid tissue and possible residual microscopic thyroid cancer.

Thyroid hormone suppression is a form of hormonal therapy commonly used adjuvantly whether or not radioiodine has been given. Thyroid hormone replacement is used to prevent hypothyroidism and minimize TSH (thyroid stimulating hormone) stimulation of tumor growth. Hormone replacement is typically given in doses that fully suppress TSH but the exact dose can be varied based upon extent of disease and likelihood of recurrence.

External beam radiotherapy is not necessary in most patients with thyroid cancer. It can be used as primary therapy for unresectable cancers (e.g. anaplastic tumors), as adjuvant therapy after surgical resection (e.g. tumors with extrathyroidal extension) and as palliative therapy for recurrent cancers.

Prognosis
The prognosis for most patients diagnosed with thyroid cancer is excellent. This is especially true for patients with differentiated cancers (papillary and follicular) in whom long term survival rates exceed 90%. The notable exception, however, is anaplastic thyroid cancer which has a uniformly dismal prognosis. Risk factors for recurrence and death in patients with differentiated thyroid cancers are age at diagnosis (older patients fare worse), size of the primary tumor, extrathyroidal extension and distant metastases.

Data Analysis
In a review performed in 2010, demographic and outcome data for patients treated for thyroid cancer at Eastern Maine Medical Center (1999-2009) was compared to state and national data sets (National Cancer Data Base - NCDB). There were 183 cases diagnosed at EMMC during this interval.

The majority of the patients were female (EMMC – 77%, Maine – 80%, NCDB – 76%). The age at diagnosis was comparable for all three groups as well with most patients being diagnosed between 30 and 60. True incidence and prevalence data are impossible to determine for EMMC but there is a clear trend with more patients being diagnosed and treated for thyroid cancer at EMMC over the last 10 years. During the first three years of the study interval (1999-2009) an average of 7 cases were diagnosed per year at EMMC compared to an annual average of 22 cases for the last three years of the study interval. Age at diagnosis and gender distribution (as well as stage) remained relatively stable during the same interval.

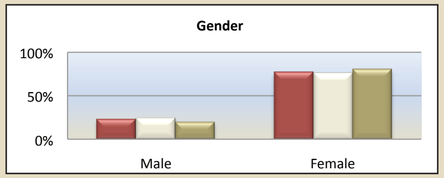
Slightly more patients were diagnosed at earlier stage at EMMC and in Maine when compared to the national averages – Stage 1 cases accounted for 63% of the total for EMMC and Maine compared to 58% in the NCDB. Likewise, the histologic distribution of cases diagnosed at EMMC was slightly more favorable with papillary cancers accounting for 90% of the total which is slightly higher than the historical national averages which range from 70-80%.

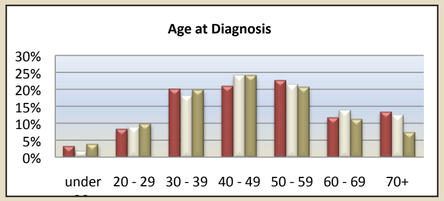
The small numbers and generally excellent prognosis associated with thyroid cancer make it difficult to perform a statistically meaningful survival analysis of EMMC data. However, the outcomes of patients treated at EMMC during this interval appear to be consistent with national data. Survival data is available for 149 patients diagnosed at EMMC between 1999 and 2009. For Stage I patients diagnosed between 1999 and 2005 at EMMC the overall survival rate is 100% compared to NCDB 5-yr overall survival rate of 98% for Stage I. Across all ten years, twelve of the 149 patients have died, however, thyroid cancer appears to be the cause of death in only 4. Three of these patients were elderly (mean age 79) and had distant metastases at the time of diagnosis. The 4th patient to die of thyroid cancer was diagnosed at an earlier age with Stage II disease, had multiple significant medical co-morbidities and developed distant metastases following treatment.

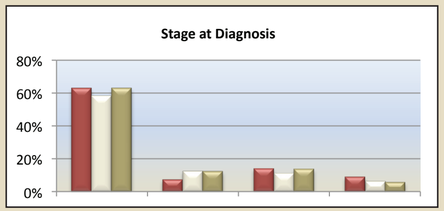
Conclusion
Thyroid cancer incidence appears to be rising in Maine as well as nationally. Earlier detection of smaller papillary cancers accounts for much, but not all, of the increases. Thyroid cancer continues to have a very favorable prognosis compared to other malignancies but the possibility of death due to the disease cannot be ignored. Surgery remains the mainstay treatment for thyroid cancer with radioiodine and hormonal suppression therapy commonly used adjuvantly. External beam radiotherapy and chemotherapy are used much less frequently.

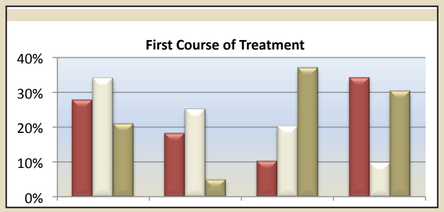
Analysis of demographic data at EMMC reveals a slightly higher percentage of favorable cancers (earlier stage, papillary) than seen nationally but the numbers are too small for truly accurate statistical analysis. Analysis of outcomes data is similarly difficult but outcomes for patients treated at EMMC appears to compare favorably to national data sets.

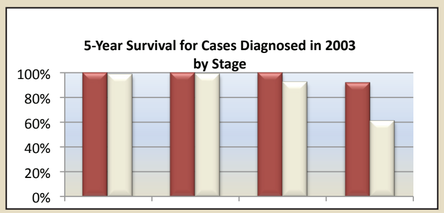
THYROID CANCER DATA
EMMC, NCDB AND MAINE COMPARISONS











For comparison cases reviewed were diagnosed 2000 to 2007

EMMC – all cases accessioned at Eastern Maine Medical Center
NCDB – National Cancer Data Base
Maine – all hospitals in Maine reporting to NCDB

S = Surgery R = Radiation Therapy H = Hormone

2009, 2010 – Annual Report – December 31, 2010
*Contributors not otherwise noted ** Editor
Registry Statistical Information Referenced – January 1 to December 31, 2008 and 2009, except where otherwise specified
Statistical Analysis – Pat Hofmaster, PhD, Director, Performance Improvement and Data Management
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