



Central Maine Comprehensive Cancer Center

.....
2010 ANNUAL REPORT
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The Central Maine Medical Family

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2009 BREAST CARE CONFERENCES

Number of Conferences	26	
Number of Cases Presented	219	
Number of Prospective Cases	199	90%
Number of Cases without Cancer	10	5%
Number of Follow-Up/Retrospective Cases	10	5%
Average Attendance	13	327 Total
Physicians	227	69%
Allied Health	57	18%
RN/FNP	43	13%



2009 GENERAL TUMOR BOARD

Number of Conferences	22	
Number of Cases Presented	99	
Number of Prospective Cases	95	96%
Number of Follow-Up/Retrospective Cases	2	2%
Number of Cases without Cancer	2	2%
Average Attendance	20	439 Total
Physicians	252	58%
Allied Health	138	31%
RN/FNP	49	11%



2009 THORACIC CONFERENCES

Number of Conferences	18	
Number of Cases Presented	92	
Number of Prospective Cases	66	72%
Number of Cases without cancer	21	23%
Number of Follow-Up/Retrospective Cases	5	5%
Average Attendance	9	167 Total
Physicians	146	87%
Allied Health	13	8%
RN/FNP	8	5%



Chairman's Report

by Nicholette Erickson, M.D.

The past year has been one of continued growth and improvement for the Central Maine Comprehensive Cancer Center. In this publication, we are reporting on cases diagnosed and treated in 2009, as well as reviewing a number of facets of the services provided by our cancer program.

We are very pleased to report the addition of several new cancer specialists to our staff. Dr. Courtney Jensen has joined Dr. Sue Mandell in the Radiation Therapy Department. Dr. Jensen is a graduate of the University of Wisconsin, and recently completed her specialty training in Radiation Oncology at Wake Forest University in North Carolina. She is joined by Dr. Daniel Rausch who will be practicing medical oncology and hematology. Dr. Rausch is a graduate of Tufts University School of Medicine in Boston, and just completed his fellowship training in medical oncology and hematology at Lahey Clinic Medical Center in Burlington, Massachusetts.

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We are very happy to welcome both Dr Jensen and Dr Rausch and look forward to expanding our ability to care for the central Maine region.
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In June of this year, the cancer program completed a successful survey by the American College of Surgeons Commission on Cancer. The Commission on Cancer (CoC) Accreditation Program encourages hospitals and treatment centers to improve the quality of cancer care by meeting many standards that

relate to early detection of cancer, cancer treatment, community outreach and education among others. Our approval as a CoC designated Comprehensive Community Cancer Center allows us to demonstrate our ongoing commitment to the highest quality of cancer care available in our region.

One element of care involves clinical research, which allows new therapies to be offered to our patients close to home, and to help move the field of cancer care forward. We are particularly happy to be a participating site for the I-ELCAP early lung cancer detection trial. In this report, Louise Marcotte details our latest efforts in clinical research.

This year has also seen the addition of inpatient palliative care services under the direction of Dr. Bruce Condit. Dr. Condit, along with Jackie Fournier ANP, provide consultative services to patients and families who are dealing with difficult issues at the end of life, including symptom management and clarification of goals of therapy.

We are proud of our accomplishments in the last year, and look forward to continued development and progress in the year ahead. None of these accomplishments would have been possible without the hard work and dedication of the professionals and staff who work each day caring for our patients. These individuals should be recognized for their contributions.

Nicholette Erickson MD



▶ Prostate Brachytherapy Survival Study 2000-2004

by Sue Mandell, M.D.

Since 1999, the department of radiation oncology has been performing iodine-125 seed implantation for prostate cancer. The survival study focuses on 249 low risk and early intermediate patients whose date of diagnosis ranged from January 2000 through December 2004. Date of implantation ranged from May 2000 through May 2006.

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Brachytherapy is a form of radiation where tiny pellets containing radioactive material are implanted directly into the prostate.

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With Brachytherapy, radiation is limited to short distances. It is a technique where the radioactive iodine pellet is applied in close proximity to a malignancy. Therefore, it can deliver a higher dose of radiation to the prostate while sparing nearby tissue and adjacent organs not at risk to contain disease.

During the 1980s, advances in imaging technologies made this procedure more feasible. Traditional transrectal ultrasound (TRUS) and computerized tomography allowed for accurate placement of the radioactive seeds. Using a perineal template guidance system and TRUS, a uniform seed distribution is performed through the template with needle punctures. Dose distribution and seed placement is designed based on computer software programs.

We chose iodine-125 based on 10- to 15-year national survival rates from 79-93%. Iodine-125 had an half-life of about 60 days and it emits low-energy x-ray and gamma rays to deliver a high dose selectively to appropriate tissues at risk.

Our patient selection criteria and dosing strategy has been established by the American Brachytherapy Society and also forms the basis of treatment in the 2010 NCCN Guidelines for Oncology. Low risk candidates are ideal candidates for seed implantation alone and encompass T1 through T2a, Gleason score less than or equal to 6 and a PSA less than or equal to 10 ng/mL.

Preferable prostate volumes include a size from 20-40 g, although selected pt size up to 50 g can also be implanted. Larger gland size is inappropriate secondary to the inability to obtain proper dosing. Appropriately sized glands also will require less seeds for the 145 Gray dosing, and therefore, less side effects short term.

Intermediate-risk prostate cancer patients suitable for an implant alone include Gleason score 7 (3+4) with a less than 50% histologically positive specimen. Androgen deprivation therapy (ADT) is recommended for the duration of 4-6 months only in these patients. T2b, T2c, Gleason 7 with greater than or equal to 50% disease in the specimen are recommended to have IMRT/IGRT external beam radiation alone or in conjunction with a seed implant along with androgen deprivation therapy and are not included in this report.

This report of 249 patients with 5-year survival were Stage II's; age 65 years or older unless patients refused a radical prostatectomy or were medically inoperable. Age range was 48 to 84 years with an average of 68.6 years.

Adjuvant hormones were used for downsizing of the gland to prepare for the seed implant or at the discretion of the referring urologist. Duration of hormones ranged from 3 months to 3 years. Many patients have been started on hormone manipulation at the time of diagnosis before a radiation oncology consultation. 175 or 70% of the 249 patients received androgen deprivation therapy.



Date of the last contact ranged from November 2001 to June 2010. For purposes of this study, 5-year data follow-up from date of diagnosis was used to assess response from radiation.

Results

40 patients deceased, 16% total patients. Only 2 died of metastatic prostate cancer while 38 patients had PSA all less than or equal to 1.0

Only 0.8% died of disease. The other 28 patients died of other causes including a second cancer. Overall survival rate 84%. Overall biochemical disease-free survival 99%

Conclusions

Modern brachytherapy using transperineal interstitial permanent iodine-125 radioactive seeds offers patients good quality of life with convenient treatments with our data offering superb local control rates and overall survival. National data reports 67-87% biochemical relapse-free survival dependent on risk stratification.

Brachytherapy offers patients a successful treatment outcome with acceptable toxicity based on the previous 2004 annual report. What role androgen deprivation therapy played in control rates and overall survival is unknown as many patients received this therapy adjuvantly. A future article will look at the toxicity profile in comparison to national data outcomes.

I would like to thank Barbara Matarazzo and Denise Melanson, for their help in accruing this data for the manuscript.

Sue A. Matarazzo



▶ Cancer Registry Report

by Sue Mandell, M.D.

This year, Samantha Brooks, CTR, assumed responsibility as the tumor registry coordinator. Barbara Matarazzo, CTR, passed the national certification of tumor registrars. We congratulate both of these professionals for their dedication and work. We also had an upgrade in our software, which has helped in improving data collection and documentation.

Our top 3 diagnoses at Central Maine Medical Center remain breast, lung and prostate. Colorectal and now bladder round out the top 5. Bladder has surpassed non-Hodgkins lymphoma this year at 5.7% cases versus 4.4% cases respectively.

Surprisingly, we have a decrease in melanoma diagnoses from 24 cases in 2007, to 21 cases in 2008, to only 9 cases in 2009. In reviewing data, this appears to be secondary to the loss of Dr. Bonawitz, a plastic surgeon who was available for melanoma sentinel node mapping and surgical management. However, with the recent addition of Dr. Harmatz to the medical staff and plastic surgery, I believe we will see an increase in the number of analytical cases at CMMC that are diagnosed and treated here. This year, this is a 1.1% of all of our 2009 cases analyzed, compared to 5% nationally.

Most of the cancer incidences have remained stable and are equal to nationally diagnosed percentages. Once again, our breast and lung diagnoses are higher than the national average, but this trend was noted last year as well.

The commission on cancer recently reviewed our cancer program and the results will form the basis of next year's report. We continued to maintain cancer

conferences, general breast and thoracic, and have recently added a gastrointestinal conference as well for review of cancer diagnoses prospectively.

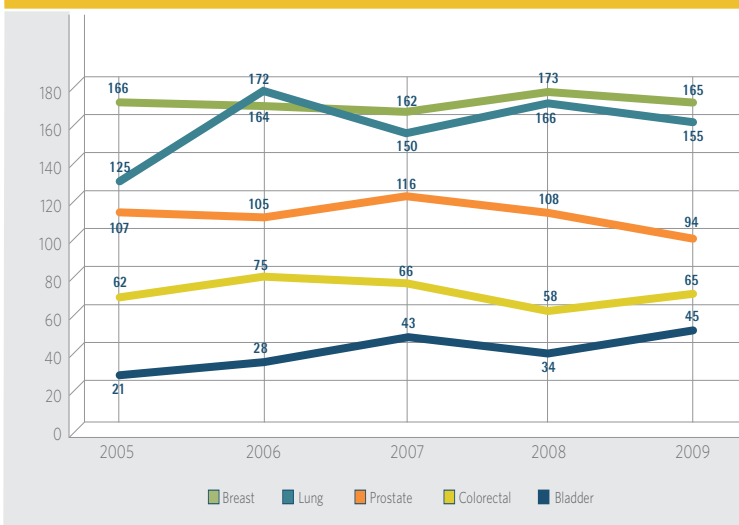
The registry also plays a role in helping with research data and review for publishing our survival rate and national standard with cancer treatment. We welcome the addition of Dr. Courtney Jensen in Radiation Oncology who has a major interest in protocol development and research publication. We also welcome Dr. Daniel Rausch in Medical Oncology, an Auburn native son.

Sue Mandell





MOST FREQUENT CANCERS PAST FIVE YEARS



TOTAL ANALYTIC CASES PER YEAR



Complete Registry Total = 12,784 (reference date=1995)

Follow-up rate = 90% (target rate is 80%)

Alive FU rate = 92% (target rate is 90%)



2009 Cancer Incidence Statistics

Site	Number of Cases			% of 2009 Analytic Cases	Estimated 2009 National Percent	Presented at CA Conference**
	2007	2008	2009			
Breast	162	173	165	20.8	13.1	209
Lung/Bronchus	150	166	155	19.5	14.8	69
Prostate	116	108	94	11.8	13	9
Colorectal/Anus	66	58	65	8.2	10.3	13
Urinary Bladder	43	34	45	5.7	4.8	3
Non-Hodgkin Lymphoma	15	36	35	4.4	4.5	11
Thyroid Gland	11	28	12	1.5	2.5	1
Kidney/Renal Pelvis/Ureter	29	26	16	2	4	1
Melanoma/Skin	24	21	9	1.1	5	6
Pancreas	20	21	13	1.6	2.9	3
Leukemia	14	16	15	1.9	3	2
Pharynx	17	16	11	1.4	1.6	5
Esophagus	15	15	17	2.1	1.1	4
Larynx	7	14	10	1.3	0.8	5
Brain/CNS	5	13	10	1.3	1.5	1
Corpus Uteri	16	11	13	1.6	2.8	0
Soft Tissue/Sarcoma	5	8	2	0.3	0.9	1
Stomach	14	8	12	1.5	1.4	4
Multiple Myeloma	6	8	10	1.3	1.4	0
Cervix Uteri	6	7	4	0.5	0.8	0
Penis/Testis	1	7	5	0.6	0.7	3
Ovary	1	6	7	0.9	1.5	2
Liver/Intrahepatic Bile Duct	2	5	6	0.8	1.5	0
Lip & Oral Cavity	9	4	8	1	0.9	5
Small Intestine	4	3	0	0	0.4	0
Extrahepatic Bile Ducts/Biliary Tract	1	3	4	0.5	0.3	1
Bone	2	3	4	0.5	0.2	0
Gallbladder	0	2	2	0.3	0.7	0
Hodgkin Lymphoma	7	2	3	0.4	0.6	0
Vulva/Vagina	3	1	8	1	0.4	0
Mesothelioma	3	0	0	0	0.4	0
Other & Unspecified Primary					2.1	
<i>Unknown Unspecified Primary</i>	19	22	22	2.8		3
<i>Salivary/Parotid Glands</i>	2	2	2	0.3		
<i>Myeloproliferative Disorder</i>	1	2	0	0		
<i>Nasal Cavity/Paranasal Sinuses</i>	1	2	1	0.1		
<i>Refractory Anemia</i>	1	1	1	0.1		
<i>Myelodysplastic Syndrome</i>	2	1	3	0.4		
<i>Polycythemia Vera</i>	4	1	2	0.3		
<i>Macroglobulinemia</i>	0	1	2	0.3		
<i>Essential Thrombocythemia</i>	0	0	2	0.3		
TOTALS	805	855	795	100%	100%	361

* Analytic = Cases diagnosed and/or receiving first course of treatment at CMMC.

** Total presented may be greater than total for site because of multiple presentations or non-analytic cases presented.

2009 United States Estimated New Cancer Cases = 1,479,350

American Cancer Society Facts & Figures 2009



Cancer of the Larynx

by Nicholette Erickson, M.D.

Head and neck cancer is common in several regions of the world in which there is extensive use of tobacco and high consumption of alcohol. The chronic exposure of the upper aero digestive tract to these and other risk factors is thought to produce "field cancerization." In the United States, head and neck cancers account for a little more than three percent of cancer diagnoses. About 25% of these cancers occur in the larynx. It is estimated that in 2010, there will be nearly 13,000 cases of laryngeal cancer diagnosed, and 3,600 people will die from this form of cancer.

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In this report, we have reviewed cases of laryngeal cancer diagnosed at Central Maine Medical Center in the five year period spanning 2000-2004.
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During that time, 38 new diagnoses of laryngeal cancer were made. As expected, the majority of these diagnoses were made in men. National statistics indicate that 80% of laryngeal cancer is diagnosed in men, at least in part reflective of differences in tobacco and alcohol use. Our experience at CMMC is similar, though the imbalance is not quite as great. Men account for 66% of the cases treated during 2000-2004, and women 34%.

The tumor node metastases (TNM) staging system of the American Joint Committee on Cancer (AJCC) is used to classify cancers of the larynx. The staging system is based on the best possible estimate of the extent of disease before treatment. The assessment of the primary tumor is based on inspection and palpation, when possible, and by both indirect mirror examination and direct endoscopy. Radiographic studies such as CT scans and PET scans may be needed to accurately stage the cancer. Cancers of the larynx may present with hoarseness as the initial complaint. Other symptoms can include difficulty swallowing, ear pain, chronic cough or stridor. Nationally, 58% of cancers are diagnosed when still localized to the primary site (Stage I and Stage II) Twenty percent are diagnosed with spread to nearby lymph nodes and 17 % with cancer that has metastasized, or spread. Five percent of cases remain unstaged. The stage distribution of laryngeal cancer cases at CMMC is similar, although with fewer cases identified that have metastatic spread at diagnosis. In our experience, 77% of cases are diagnosed when still localized, 16% with spread to regional nodes, and 5% present with distant metastatic disease. Fortunately, only one case of the thirty-eight (2%) remained unstaged.



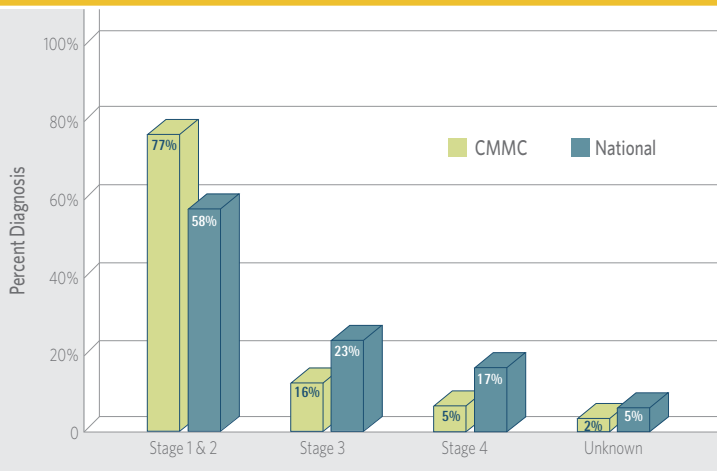


Early stage laryngeal cancer is treated, at least initially, with intent to preserve the larynx. Larynx sparing surgery or radiation therapy generally offer good local control and survival. Radiation is often preferred because functional outcomes, in particular voice quality, is perceived to be better. In our twenty-nine patients diagnosed with early stage disease, two were treated with larynx sparing surgery alone. Twenty-five patients were treated with radiation therapy, and two patients declined radiation therapy. In the six patients diagnosed with Stage III disease, five were treated with combined modality approaches that included chemotherapy in an effort to avoid laryngectomy.

The overall survival of our patients at CMMC, now with a minimum of five years of follow-up for all cases, is 55%. A total of 17 patients have died, six of which were cancer related deaths. Eight patients died from other causes and three from unknown causes. The relative five year survival is 80%, compared to 61% nationally.

Neurolette Erickson MD

STAGE AT PRESENTATION



▶ Otolaryngologist joins CMMG practice



New specialist has fellowship training in head and neck surgical oncology

The Central Maine Comprehensive Cancer Center's resources for treating head and neck cancers were bolstered last year with the arrival of a third Central Maine Medical Group otolaryngologist.

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Norris K. Lee, M.D., joined Central Maine Ear, Nose and Throat last winter, practicing in association with Michael P. Joseph, M.D., and Benjamin Lounsbury, M.D., at 12 Bates Street, Lewiston.

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Prior to beginning his practice in the Lewiston-Auburn area, Dr. Lee worked in private practice in New York, both as a solo practitioner and in a single-specialty group practice.

Dr. Lee's clinical interests include cancers and tumors of the head and neck region, including thyroid, parathyroid, and salivary glands. In dealing with complex anatomic and cancer issues, he prefers working in a multi-disciplinary environment with specialists in radiation oncology, medical oncology, ophthalmology, neurosurgery, endocrinology, plastic and reconstructive surgery, and other services concerned with the care of head and neck tumor patients. He also contributes his expertise to educating individuals involved in cancer support networks.

His professional experience includes an assistant professorship at the University of Texas Southwestern Medical Center in Dallas where he also was a researcher in cancer and an attending surgeon at Parkland Hospital, the Dallas VA Hospital, and the Zale-Lipshy University Hospital. He later accepted a position as associate professor at the Weill Medical College of Cornell University, where he was an attending surgeon at The New York-Presbyterian Hospital in New York City.

A graduate of Brown University in Providence, R.I., Dr. Lee earned his medical degree from New York University School of Medicine in New York City. After an internship in general surgery at Cedars-Sinai Medical Center in Los Angeles, he completed residency training in otolaryngology at Albert Einstein/Montefiore/ Bronx Municipal Hospital Center in the Bronx, N.Y. He then furthered his post-graduate education with fellowship training in head and neck surgical oncology at The University of Texas M.D. Anderson Cancer Center in Houston.

He is certified by the American Board of Otolaryngology and is a fellow of the American College of Surgeons. He is a member of the American Academy of Otolaryngology and the American Medical Association. He has served on the editorial board of professional journals and authored numerous articles and book chapters.

Central Maine Ear, Nose and Throat can be reached at 784-4539.



▶ Efficacy of Ultrasound Guided Needle Biopsy

by Gregory D'Augustine, M.D.

Bennett Breast Center Studies Efficacy of Ultrasound Guided Needle Biopsy in Assessment of Axillary Lymph Nodes in Breast Cancer Patients

Assessment of axillary lymph node status remains the most important prognostic feature in early stage breast cancer. Sentinel lymph node (SNL) biopsy is now accepted as the standard of care for surgical staging of the axillary lymph nodes in newly diagnosed breast cancer patients. The goal of sentinel node biopsy is to provide accurate assessment of the node(s) in a relatively less invasive manner than traditional axillary lymph node dissection (ALND). While it has been proven that the technique is accurate in a high percentage of cases the procedure does have some drawbacks. These include occasional complications such as lymphedema, dye allergic reactions, as well as considerable pain at the dye injection site. There is also a hefty cost for the radionuclide used for sentinel node identification. In addition, when a sentinel node is found to contain metastatic carcinoma the standard therapeutic recommendation is to perform complete axillary dissection, often requiring a return visit to the operating room and a second general anesthetic.

Palpation of the axilla has been shown to have low sensitivity and specificity, so it is of limited use in most cases. I recently noted that several well respected investigators have proposed the notion that axillary ultrasound may have benefit in evaluating and treating our breast cancer patients. Therefore in 2009 I proposed to our advisory group that we begin performing axillary ultrasound in all of our patients

with suspicious breast masses found by exam, mammography, or ultrasound. As our surgeons and radiologists gained experience with this technique several questions arose.

- 1) How sensitive and specific is axillary ultrasound in the setting of a newly identified breast cancer?
- 2) Can we reduce treatment morbidity and expense through this technique?
- 3) Are there pitfalls or avoidable complications associated with this practice?

Assuming that pre-op axillary ultrasound could accurately identify nodes with metastatic involvement we could, in many cases, avoid the morbidity and expense of sentinel node biopsy and proceed directly to axillary lymph node dissection (or, in some cases, "up front" chemotherapy).

With help from our advisory committee members I have reviewed our 2009 experience with axillary ultrasound exam and biopsy with the goal of determining the answers to these questions.

Methods

All patients with suspicious breast exams were candidates for axillary ultrasound assessment. If a breast cancer was confirmed by biopsy, and a worrisome node was present, an ultrasound guided core needle biopsy of the node was carried out in the Bennett Center under local anesthetic. If metastatic disease was identified, sentinel node biopsy was avoided and an axillary lymph node dissection was performed instead. For the purpose of this retrospective study I excluded cases where part or all of the cancer workup was done outside our program, where definitive surgery was performed elsewhere and pathology reports were not readily available for review, and where radiology reporting on the axillary ultrasound was lacking.

Results

60 cases were identified as satisfying these criteria. One patient with bilateral breast cancer (and bilateral axillary ultrasound exam) was included. No complications from ultrasound guided axillary node biopsy were seen.

In all there were 45 cases in which the axillary ultrasound was read as negative for suspicious nodes. In 35 of these cases sentinel node biopsy was completely negative. In 3 of the 45 cases SNL biopsy was negative with isolated tumor cells seen (NOi+). In 3 of the 45 cases micrometastases were seen in the sentinel node (N1mi) and subsequent ALND was performed. In 4 of the 45 cases SN biopsy was positive (N1a), also leading to subsequent ALND.

There were 13 cases where the axillary ultrasound was read as suspicious for metastatic disease. In 10 of these 13 cases a positive axillary needle biopsy was obtained. 3 of these 13 cases had a negative axillary needle biopsy, and subsequent SN biopsy was also negative. There were no cases of false positive axillary needle biopsy, i.e. all positive needle biopsies were confirmed by the subsequent finding of at least one positive node at ALND.

There were 2 "equivocal" reports of axillary node appearance (reflecting possibly, the innate temperament of many radiologists to prefer equivocation to outright error). In one of these 2 cases axillary needle biopsy was negative, but SN biopsy demonstrated two positive nodes (ALND showed no other positive nodes). This represents the sole false negative axillary needle biopsy in the series. In the other "equivocal" case, no needle biopsy was done. The SN biopsy was negative.

Thus, in this series, axillary ultrasound had an effective false negative rate of 7 out of 45, or 16%. When axillary ultrasound was suspicious axillary needle biopsy had a false negative rate of 0. When the "equivocal" case noted above is included the false negative rate of needle biopsy rises to 9%.

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In summary, this study demonstrates that the use of pre-op axillary ultrasound is beneficial to our newly diagnosed breast cancer patients.
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It is effective in demonstrating metastases in a high percentage of cases. Noteworthy is the fact that several of our false negative cases showed minimal sized metastatic deposits expected to be below the threshold of visualization by ultrasound technology. I expect that as our ultrasound technologists and radiologists gain experience the accuracy rate will become even better.

Being aware of nodal metastases prior to surgery is helpful in several ways. In such cases sentinel node biopsy with its attendant injection pain and potential for a second surgical procedure for ALND can be avoided. A cost benefit is also expected as our typical lab charge for axillary needle biopsy followed by ALND is approximately \$900 while lab charges for SN biopsy with frozen section and special stains followed by ALND would run roughly double that amount. Radiology and operating room charges would also be much higher in the latter scenario.

The study also suggests that routine use of frozen section during SN biopsy may not be cost effective (several of the "ultrasound negative, SN positive" cases showed micrometastases not found by frozen section). Further study of this issue is warranted, possibly when 2010 data is reviewed.



References

Clinical Practice Guidelines in Oncology- v.2. 2010.
Payne WS, Taylor, WF, et al: Surgical Therapy of Breast Cancer: Trends and Factors Affecting Survival. Arch Surg 1970; 101: 105-113.
Ferguson, DJ et al: Staging of Breast Cancer and Survival Rates. JAMA 1982; 248: 1337-1341.
Fisher, ER, et al: The Pathology of Invasive Breast Cancer. Cancer 1975; 36: 1-85.

▶ Digital Mammography Services

by Susan Schraft, M.D.

Central Maine Medical Center at the Bennett Breast Care Center acquired two digital mammographic units in July, 2008. Systems were subsequently installed at Bridgton and Rumford hospitals. The cost of the units was significantly reduced due to a grant received from the Avon Foundation.

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There are many advantages to digital mammography compared with the older film/screen technique.

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Inherent in the digital technique is decreased radiation dose. The dose is further reduced by the type of filter that we purchased. Digital mammograms are reviewed on a computer rather than on film. This allows the radiologist to manipulate the images, ultimately reducing our annual call back rate which is approximately 5%. The radiologist's interpretation is also improved by a computer algorithm which is called CAD (computer aided diagnosis). The computer marks areas of possible abnormality within the breast. As such, it serves as an additional pair of eyes on every mammogram. This double reading capability is particularly useful in the detection of very tiny calcifications which may reflect early cancer within the ducts.

In regards to patient care, digital images are acquired almost instantaneously and the technologist need not leave the room to develop the images, as was required in the past. Screening mammography, therefore, will take less time.

The Central Maine Health Care Family has instituted a SWIPE program which allows employees to undergo screening mammograms during work hours. Please contact the Sam and Jennie Bennett Breast Care Center at CMMC or the mammography departments at Bridgton and Rumford hospitals with any questions that you may have.

Susan Schraft MD



▶ Expanded Therapy Options



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With the arrival of Dr. Gregory Friedel MD, MBA in 2009, X Ray Professional Associates has expanded therapy options available to oncology patients at CMMC.

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Perhaps the most exciting aspect of the expanded therapy includes treatment of patients with primary and metastatic cancer of the liver. New primary tumors of the liver occur in almost 20,000 Americans each year. These are particularly prevalent in patients who have underlying liver disease such as cirrhosis or viral infection from hepatitis B and C. Previous therapy options have typically included chemotherapy options that were systemic -- that is, they were administered at sites remote from the tumor such as a vein in the arm or via a Chest Port catheter. While these therapies do have positive effects in the treatment of liver cancer, they also come with some systemic side effects as the entire body is exposed to the medicine, not just the tumors.

For some selected patients, a different kind of therapy, Chemoembolization, may offer improved outcomes with the possibility of decreased side effects. In this procedure, a catheter is threaded up the artery from the groin to the liver in a fashion similar to cardiac catheterization procedures. In this case the artery that supplies blood flow to the liver is selected and an even smaller microcatheter only 0.018 inches wide is placed into the liver. Through this catheter the chemotherapy drugs are injected right to the arteries supplying the tumor. This allows the radiologist who performs the procedure to give a lower dose of drug than what is needed if the medicine were

to be injected peripherally in a vein and decrease the side effects of many of these medicines. Often, after the Chemotherapy is administered, very small particles are injected to stop blood flow to the tumor which locks the chemotherapy in and prevents the tumor from getting further nourishment from the blood. This therapy can be quite effective with a significant number of patients achieving prolonged survival compared with patients who do not receive chemoembolization.

Another promising therapy includes ablation of tumors using needles inserted through skin into cancers in the liver, kidney or bone. These needles can then pass very cold or very hot temperatures to the tumors and freeze or burn them, ultimately killing the cancer cells. In selected patients this type of therapy may, in fact, cure the patient of cancer and prevent the need for surgery or chemotherapy, though ablation techniques are often used in combination with other therapies to give the best chances for a cure.

It is an exciting time at CMMC for our oncology patients. We continue to expand all therapeutic options available to bring the best chance of success in treating cancer. The entire team of Physicians, Technologists and Nurses in Interventional Radiology are eager to help with these cutting edge procedures.

▶ Medical and radiation oncologists, plastic surgeon bolster CMMC cancer service

The Central Maine Comprehensive Cancer Center last year welcomed three physicians who specialize in cancer care.

These additions to the Central Maine Medical Center Medical Staff include a medical oncologist, radiation oncologist and plastic surgeon.

Joining Hematology-Oncology Associates was medical oncologist Daniel C. Rausch, M.D., who recently completed a hematology-oncology fellowship at St. Elizabeth's Medical Center in Brighton, Mass.

The Cynthia A. Rydholm Cancer Treatment Center welcomed Courtney A. Jensen, M.D., a radiation oncologist who this year completed residency training at Wake Forest University School of Medicine in Winston-Salem, N.C.

Alan S. Harmatz, M.D., a plastic surgeon, began practice in association with Central Maine Plastic Surgery in Lewiston. Prior to relocating his practice to the Lewiston-Auburn area, he practiced with Plastic and Hand Surgical Associates in South Portland.

Daniel C. Rausch, M.D.

Dr. Rausch graduated from Haverford College in Haverford, Pa., and earned his medical degree from



Tufts University School of Medicine in Boston. As a medical student he was recognized for his skills in physical diagnosis. He was also accepted into two research fellowship programs.

He served a residency in internal medicine at Lahey Clinic Medical Center in Burlington, Mass. While completing his residency, he was involved in clinical trial research.

Dr. Rausch is certified by the American Board of Internal Medicine, and is a member of the Maine Medical Association and American Medical Association.

He is a native of Auburn and lives there with his wife, Kristine.

Hematology-Oncology Associates, a member of the Central Maine Medical Group, is also comprised of medical oncologists Nicholette L. Erickson, M.D., Trudi A. Chase, M.D., and nurse practitioners Julie-Ann Booker, Gisele M. Castonguay and Annette O'Gorman. The practice can be reached at 795-2935. The office is located at 12 High Street, Suite 205, in Lewiston.

Courtney A. Jensen, M.D.



Dr. Jensen graduated with distinction with bachelor's degrees in bacteriology and molecular biology from the University of Wisconsin in Madison, Wis. She earned her medical degree from the University of Wisconsin School of Medicine and

Public Health, also in Madison, Wis. As a medical student, she was recognized with a number of academic awards, including the American Medical Women's Association Janet M. Glasgow Memorial Citation Award for female students who graduate first in their medical school class. Other awards include the Cora M. and Dr. Edward J. Van Liere Award for high scholastic standing over the duration of her medical education and the Evan and Marion Helfaer Scholarship for academic achievement.



Her professional background is distinguished by research work that led to presentations at a number of prestigious scientific meetings, including the American Society of Clinical Oncology, the American Society of Therapeutic Radiation Oncology, the American Brachytherapy Society, the Radiological Society of North America, and the Society for Neuro-Oncology.

Dr. Jensen is a member of the American Brachytherapy Society, American Society of Clinical Oncology, and the American Society of Therapeutic Radiation Oncology.

She lives in Auburn, with her husband, Scott Yonts, a software developer.

The Cynthia A. Rydholm Cancer Treatment Center at CMMC is a component of the Central Maine Comprehensive Cancer Center. The facility features external beam radiation therapy, Intensity Modulated Radiation Therapy (IMRT) and prostate brachytherapy. Dr. Jensen works in association with Sue A. Mandell, M.D., the Rydholm Center's chief of radiation oncology. The Center can be reached at 795-2440.

Alan S. Harmatz, M.D.

In the late 1990s, Dr. Harmatz was affiliated with a private plastic surgery practice in Lewiston. He relocated to the Portland area, but earlier this year decided to return to the Lewiston-Auburn area and join the Central Maine Medical Group.



He is certified by the American Board of Plastic Surgery. He is also a fellow of the American College of Surgeons and a member of the American Society of Aesthetic Plastic Surgeons and the American Society of Plastic Surgeons.

A graduate of Pace University in New York City, Dr. Harmatz participated in research activities at Harvard University in Cambridge, Mass., before entering New York Medical College in Valhalla, N.Y. He graduated cum laude from medical school and served a residency in general surgery at Maine Medical Center in Portland. He was presented Maine Medical Center's Sager-Ray Award for Outstanding Chief Resident in Surgery. He completed a plastic surgery residency at Dartmouth-Hitchcock Medical Center in Hanover, N.H.

He also serves as an associate professor of surgery at Lahey Clinic in Burlington, Mass., and at Dartmouth-Hitchcock Medical Center in Lebanon, N.H.

As a member and former director of Interplast, a non-profit organization that provides free reconstructive surgery in developing nations, he has donated his services at clinics in Peru, Nepal and Vietnam. As part of this work, he has led trips to these regions and trained local surgeons to provide services.

He lives in Scarborough with his wife, Cynthia. They have two daughters, Hannah and Summer, and two grand-daughters, Hallie and Olivia.

Central Maine Plastic Surgery's offices are located at 287 Main Street, Suite 302, in Lewiston. The practice can be reached at 795-6543.

Cancer Clinical Trials

by Louise I. Marcotte, MSS, Director, Clinical Research

Introduction

The television media inundates viewers with ads for medications recently approved by the Federal Drug Administration (FDA). Years ago, direct marketing by the pharmaceutical companies to the consumer public was not prevalent. Many of us are appropriately concerned upon hearing disclaimers that accompany direct marketing – warnings not to take this medication if we have other specific medical conditions, or if we take another category of drug, and to stop taking this medication if we develop specific symptoms, some of them potentially life-threatening. It's a bit scary to hear these disclaimers, even though the information provided to the consumer public is based on scientific information learned during the drug development process. Yet, clinical trials are necessary in order to bring new drugs to market.

With cancer medicine, however, clinical trials take on a life of their own, a life often accompanied with the hope that perhaps the medication that is being investigated via clinical trials will bring positive outcomes that, so far, have not been achieved through standard of care treatments. If there were no clinical trials, we would not have access to life enhancing drugs such as various chemotherapy regimens (e.g. Alimta, Taxol), antibodies that stop tumor growth (e.g. Avastin, Herceptin), and newer oral targeted therapies (e.g. Nexavar, Tarceva).

An example of this is the drug Gleevec (imatinib) which was originally marketed to treat some forms of leukemia. Prior to Gleevec, a cancer known as gastrointestinal stromal tumor (which is a rare type of cancer of the digestive tract, also known as "GIST") was treated with chemotherapy drugs that only achieved 5-15% response rates. The initial clinical trials utilizing Gleevec in these rare tumors yielded a 59% response rate, with total disappearance of the tumor in many of these cases. It was soon after discovered that Gleevec was most effective in patients with a certain gene mutation. Because of these dramatic results, the drug was fast-tracked for early FDA approval for the treatment of GIST tumors and

scientists began to further investigate why tumors with this gene mutation responded better to Gleevec.

Clinical Trial Development

A clinical trial often begins with a scientific idea based on laboratory research results. Cancer clinical trials generally fall into one of two large groups: (1) trials designed by a group of cancer doctors specializing in specific cancers such as breast, lung, colon or prostate; these clinical trials, developed by cooperative groups, are funded by the National Cancer Institute (NCI), a branch of the National Institutes of Health (NIH); (2) trials designed by pharmaceutical companies in order to test the safety and efficacy of investigational drugs that have not yet obtained FDA approval. The goal of most clinical trials is to find better ways to treat, diagnose and prevent cancer so that people can live better and longer. Other trials focus on alleviating symptoms of the disease or side effects of the treatment.

Protection of Research Subjects is Federally Mandated

Before they are allowed to enroll participants, clinical trials must obtain the approval of a local or central Institutional Review Board (IRB). As mandated by the Office of Human Research Protection (OHRP), a federal agency, an IRB consists of a diversified group of individuals who review every study that an institution plans to conduct. The IRB's primary mission is to protect the safety and rights of human subjects participating in any type of research. The institution cannot begin to enroll participants in a clinical trial without the IRB's approval. Once approved, a potential trial participant reviews and signs a comprehensive consent form that describes the activities of the clinical trial, as well as the risks and potential benefits. Research staff spend a great deal of time with the cancer patient, making sure that s/he understands the purpose of the trial and the risks/potential benefits. Even though a patient consents to participation in a clinical trial, the patient can revoke the consent at any time, without penalty.



Safety Considerations

Clinical trials, regardless of whether they are funded by the federal government (NCI) or by pharmaceutical companies, utilize an independent body of cancer researchers not related to the study, called a Data Safety Monitoring Board (DSMB). This group meets regularly to assess the safety profile of the trial, reviewing large volumes of data reported by all the sites participating in the clinical trial. If the data demonstrate that the trial is not safe, the DSMB can recommend that the study be closed. On the other hand, if the results of the DSMB's review indicate that the investigational drug is far more effective than the current standard of care, the DSMB also can recommend that the study be stopped, thus leading the way to quicker FDA approval of the investigational drug.

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Randomization is a procedure commonly used in clinical trials when new treatment approaches are being tested, and when there is uncertainty about the best treatment approach.

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Randomization is like flipping a coin. The treatment will be assigned by chance.

In a typical randomized clinical trial, study participants receive either standard of care or the investigational treatment. This is an important aspect of cancer clinical trials. Generally, cancer patients participating in a trial will receive the standard of care, at a minimum. If they are randomized to the experimental arm of the trial, often they receive standard of care treatment plus the experimental portion of the trial.

Risks and Potential Benefits

As with all medical treatments, there are potential risks associated with investigational treatments used in trials. These risks can include side effects to the

treatment being studied and the possibility that new treatment may not be effective for the trial participant. Before a patient agrees to enter a clinical trial, the cancer doctor and the research staff fully explain the potential risks and makes sure that the patient understands them.

Taking part in a clinical trial allows a cancer patient to play an active role in his/her health care and receive excellent medical care. In a clinical trial, the cancer doctor continues to care for the patient; the patient also receives close observation by national cancer experts and potential access to new cancer treatments and techniques before they are widely available.

Relationship of Insurance Coverage and Clinical Trial Participation

Every trial is somewhat unique in its design. However, much of the treatment that a patient receives in a cancer clinical trial is standard of care. Insurance usually covers this cost. The experimental portion of a clinical trial cannot be billed to the patient or his/her insurance. Research staff pay careful attention to this distinction in the scheduling and billing process of the trial, as well as throughout the conduct of the trial.

Conclusion

Clinical trials are developed by both federally funded cooperative groups and the pharmaceutical industry. They are closely regulated by the FDA and OHRP, and reviewed by a Data Safety Monitoring Board. The primary goal of cancer clinical trials is to continually improve the treatment, diagnosis, symptom reduction and prevention of cancer in order to prolong survival and optimize quality of life for patients with cancer. In providing clinical trials at CMMC, we are able to offer our patients alternative new treatments here in the community that they would not otherwise have access to without traveling to Portland or Boston. This not only allows our patients access to new treatments, but it can give them hope, and the opportunity to help future cancer patients through their participation.

THE PATRICK DEMPSEY CENTER FOR CANCER HOPE & HEALING

Annual Report

by Kerry Irish, MSW, LCSW, OSW-C, Program Director



Overview

The second year of The Patrick Dempsey Center for Cancer Hope & Healing at Central Maine Medical Center has been one of continuing growth. In addition to the phenomenal success of the inaugural Dempsey Challenge in October, we have added a number of new services and programs, several staff positions, and grown our pool of volunteers from 32 to 173!

We provided tens of thousands of people with cancer health education through our website, workshops, health fairs, and community events.

In 2009, we also had nearly 8,000 direct patient and caregiver contacts through our direct care services, including counseling/oncology social work, financial resource counseling, helpline calls, integrative medicine services such as massage therapy and reiki, and other direct care. We are pleased to share that 100% of our services and programs are offered for free!

In brief, some of the Dempsey Center's Year Two Accomplishments include:

- Completely revamped our website, www.dempseycenter.org, and received nearly 30,000 hits.
- Launched a second website, www.dempseychallenge.org, which received nearly 107,000 hits!
- Served nearly 3,000 callers through our toll-free cancer helpline service.
- The outreach oncology social worker continues to provide direct clinical and medical social work

services to patients and families served at Bridgton and Rumford Hospitals, including counseling, support groups, and case management services. In year two, she had 600 direct service contacts with patients. She also has developed multiple community outreach programs and workshops in the Bridgton and Rumford communities and collaborated with staff at both hospitals and with multiple agencies within the communities.

- Assisted 64 cancer patients with transportation concerns, arranging rides to and from treatment with area providers such as the American Cancer Society's Road to Recovery program, Community Concepts, Senior's Plus, etc.
- Received a donated vehicle from Mercedes, which will allow for expansion of The Connect Shuttle service between Rumford Hospital and CMMC, providing free transportation for cancer patients between the two facilities.
- Continued and significantly expanded the Dempsey Center Orientation program, offering individualized orientation visits for oncology patients and their family members. 681 orientations have been conducted in 2009.
- Developed and offered 131 workshops on various cancer-related topics for cancer patients, their family members, community members, and professional caregivers.
- Offered 13 cancer support or social groups
- Provided Cancer Information & Resource packets to 880 newly diagnosed cancer patients.
- Established additional integrative medicine/wellness services at the Center. Services now include massage therapy, reiki and mini-spa services, weekly yoga classes, and workshops in wellness practices such as nutrition; music therapy; Qi Gong, Jin Shin Jyutsu, and Tai Chi.

"I am 72 years old and in all those years I have never had the outstanding care as I've had here at the Center. The staff and services are above and beyond in quality and professionalism. I am so glad I can come here for my well being."

- The Dempsey Center served as a field education placement site for master's level social work and public health students, hosting both an MPH student for her summer practicum and an MSW student from the University of New England for her 9-month internship.
- Grew the Dempsey Center Volunteer Corps, an enthusiastic cadre of volunteers who contribute to the success of the Center and the quality of cancer patients' lives through their generosity.

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There are presently 173 Dempsey Center volunteers, including volunteer knitters, sewers, Caring Cards artists, and Center volunteers. The Dempsey Center volunteers contributed 2,777 hours of service to the Center in year one (excluding knitting and sewing hours, which were not calculated).

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In light of our growing volunteer program, we determined a need to have a dedicated Volunteer Corps Manager. In November, Mary Dempsey was promoted from her role as the Center Coordinator to this new role.

- Created a Cancer Health Outreach Education program, the implementation of which was made possible by grant funding through the Tallen Kane foundation. Our dedicated Cancer Health Outreach Educator brings information on cancer prevention and early detection to at-risk and underserved individuals throughout the region. In year one alone, she reached over 6,500 individuals at workshops, health fairs, community events, and time spent at social service agencies.

- In collaboration with the CMMC Patient Financial Services office and with grant funding from The AVON Foundation, established a dedicated Financial Resource Counselor to assist oncology patients of the Central Maine Comprehensive Cancer Center with navigating the financial challenges associated with illness and treatment.
- Launched the Kid's Comfort Pack project with funds raised by the Development Associates, the Dempsey Challenge, and individual donors.
- Established an additional cancer resource lending library at Parkview Hospital's oncology clinic, offering a comprehensive range of materials & resources relative to cancer care and treatment.
- Collaborated with a numerous local, regional, and national programs to create and expand our programming and service capabilities. One such example is our collaboration with The Cancer Project (through which we've been able to provide Food for Life nutrition and cooking classes).
- Attended multiple community events to increase public awareness of The Center and its offerings and to provide education regarding a variety of cancer-related topics. Examples include displaying at the annual statewide ACS "Living With Cancer Conference"; multiple community health fairs; Lewiston Night Out; among others.
- Expanded our quarterly newsletter and calendar of events, and established a biweekly e-newsletter, highlighting current programs of The Center.

Testimonials

Statistics and lists, though helpful, always fall short of capturing the true impact of services. The following quotes come from thank you cards and workshop evaluations:

"I am 72 years old and in all those years I have never had the outstanding care as I've had here at the Center. The staff and services are above and beyond in quality and professionalism. I am so glad I can come here for my well being."

"I have been a participant in several art programs and have found a lot of support, fun and new friends... This is an excellent center to get mental, emotional and physical support not only through the art programs but through the support groups and the availability of social workers trained to work with cancer patients... and their families. I cannot speak enough about the positive impact the Dempsey Center has had for me and others who are participating."

"I have never met so many caring, personable wonderful people in one building in all my 51 years! I love this place!! I look forward to ALL my future visits. What a special place."

"Exceptional service offered for the community. My hope is this will bring about more awareness that you guys are here and what you offer! What a SERVICE and staff is wonderful!"

Conclusion

We are proud of our accomplishments in 2009 and look forward to continuing progress in the year ahead. With the generous support from Patrick Dempsey, Central Maine Medical Center, philanthropic organizations such as The AVON Foundation, The Tallen Kane Foundation, individual donors, and participants of The Dempsey Challenge, we plan to continue offering our current programs and services, as well as adding additional programming. Goals for 2010 include: developing and offering comprehensive programming to serve children and families who have been affected by cancer; expanding community-based cancer health outreach programming, including launching Operation Inspiration, a program that focuses on meeting the psychosocial, educational, and wellness needs of lung cancer patients, survivors, and caregivers; adding additional wellness/integrative medicine services such as music and art therapy; realigning existing outpatient oncology social work staff under the Center in order to enhance the consistency and quality of psychosocial care services; expanding our outreach oncology social work services to the oncology clinic at Parkview Hospital; and participating in the vision and creation of a regional comprehensive cancer center that will bring together all CMMC outpatient cancer services into one location.



2009 Cancer Committee Members



Greg D'Augustine, MD
Cancer Liaison

Nichollette Erickson, MD
Chair

Meghna Desai, MD

Paul Mailhot, MD

Sue Mandell, MD

Susan Schraft, MD

John Skinner, MD

Ann Traynor, MD

Kathi Varney, FNP

Samantha Brooks, CTR

Douglas F. DiVello, CHE

Jeff Hazel, MBA, FACMPE

Kerry Irish, LCSW

Mary Maloney, CTR

Dorn McMahon, LMSW-cc

Diane Mulkhey, RTT

Patty Roy, RN, MSN, CPHQ

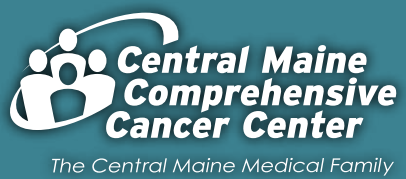
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