

Innovations in Cancer Care

Paoli Hospital Cancer Program



Annual Report Based on
2005 STATISTICS



Main Line Health
Cancer Center
Paoli Hospital

Fox Chase Cancer Center Partner

The mission of Main Line Health is to provide a comprehensive range of health services, complemented by related educational and research activities, that meets community needs and improves the quality of life in the communities we serve.

Message from the Chairman of the Cancer Committee

As Chairman of the Paoli Hospital Cancer Committee, I am pleased to share some of the exciting accomplishments in cancer care we provide to our patients and community. Our program was recently awarded with a renewal of the American College of Surgeons accreditation with special commendation. This designation demonstrates Paoli Hospital's commitment to excellence in cancer care in all aspects, from screening, community outreach, genetic counseling, medical education, research and quality patient care.

We have recently renewed and strengthened our affiliation with the Fox Chase Cancer Center. Our "Partner" designation means that the quality of care we provide meets the high standards set forth by the National Comprehensive Cancer Network guidelines. This closer association with one of the 39 National Cancer Institute designated Comprehensive Cancer Centers allows patients in our community to receive the latest treatments and access to new and cutting edge therapies for cancer.

During the past year, the Paoli Cancer Center has added HDR (high dose rate) radiation which allows the Radiation Oncologists to deliver breast radiation after surgery in five days as opposed to seven weeks in some patients. This technology is also important in treating gynecologic

cancers. The Breast Health Center continues to grow and has added the ability to perform breast biopsies under MRI guidance. Our multidisciplinary breast cancer conferences assure that each woman with newly diagnosed breast cancer receives a comprehensive approach to her care. The Senior Oncology Program tailors Medical Oncology care to the special needs of patients over age 70 and continues with research for this population.

The Oncology Data Services department closely monitors the number and types as well as outcomes for cancer patients at Paoli Hospital (*See Table 1*). Breast, lung and colorectal cancers remain the most prevalent diagnoses. At Paoli Hospital and across the country, cases of the skin cancer melanoma continue to rise. Dr. Scott Kripke explores this disease further in this report.

As Paoli Hospital grows, the Cancer Committee is committed to meet the expanding oncologic needs of the patients and physicians in our community.



Michael B. Dabrow, DO, FACOI
Medical Director Paoli Cancer Center
Chair, Cancer Committee

Oncology Research at Paoli

The clinical trials program of Main Line Health was awarded the designation of Community Clinical Oncology Program (CCOP) by the National Cancer Institute in 1994, and has consistently met the high standards of the NCI. The CCOP designation is a prestigious one, as there are only 50 CCOPs across the country. We are currently in our 13th year of this grant and looking forward to continuing our affiliation with NCI, as we await review of our new grant application. Medical, surgical and radiation oncologists and our research staff accrue patients to both prevention and treatment studies provided by six research bases: M.D. Anderson Cancer Center; Eastern Cooperative Oncology Group; National Surgical Adjuvant Breast and Bowel Project; Fox Chase Cancer Center Research Base, Gynecology Oncology Group and Radiation Therapy Oncology Group.

As a research center, we also participate in pharmaceutical research endeavors, as well as clinical trials sponsored by other professional organizations, such as the American College of Surgeons Oncology Group. At Paoli, we remain affiliated with Fox Chase Cancer Center and offer a variety of studies and other services as part of our overall program. All studies continue to accrue patients with the assistance of the medical and research staff.

Rosemarie A. Tucci RN, MSN, AOCN
Manager, Main Line Health Oncology Research & Data Services

Report on Melanoma – 2005

Melanoma is a cancer of the pigmented cells of the skin. Risk factors for melanoma include fair skin, sun exposure and genetic predisposition. These cancers can arise from any portion of the skin. With the propensity for people to have increased exposure, from either direct sunlight or tanning salons, the number of people developing melanoma has continued to rise across the country and this is reflected in Paoli Hospital's numbers as well. In the year 2000, we reported only 16 cases, 29 cases in the year 2004 and this year 46 cases are listed. This may reflect an underestimate as many of these cancers are evaluated by pathology laboratories that specialize in dermatopathology outside of the Main Line Health system. Interestingly, Pennsylvania, not a state associated with excess sun exposure, is estimated by the American Cancer Society to have 3,140 new cases of melanoma in 2006. That is more than New Jersey (1,890), Delaware (240) and even Texas (3,130). Only California and Florida have significantly more cases of melanoma than Pennsylvania of the 62,190 estimated new cases for 2006. At Paoli Hospital, the median age at diagnosis is 55 years, younger than the Pennsylvania median age of 75. The five year survival for early stage disease at Paoli (84.3 percent) parallels the state's National Cancer Data Base statistics (78.5 percent).

The most common sites of disease are on the extremities for females and on the trunk for males. Acral Melanomas, those on the palms, soles or nailbeds can occur in patients of any ethnic background and without significant sun exposure. Patients with dysplastic nevi syndrome, lesions with irregular pigmentation and borders, have an increased risk of melanoma.

Recognizing melanoma early is key to successful treatment and outcome. Lesions that have irregular borders, variation in color or size, especially rapid growth should prompt immediate evaluation. Early lesions can often be treated quite successfully, while metastatic melanoma tends to be resistant to treatment. The prognosis for patients with melanoma one mm or less in thickness is excellent with long term survival over 90 percent. The presence of regional lymph nodes often cuts survival rates in half. Paoli Hospital surgeons perform sentinel lymph biopsies in appropriate patients.

The staging of melanoma has undergone recent revision to incorporate ulceration, Breslow thickness and satellite lesions to help define prognosis (See Table 1, Figure 1).

Once a primary diagnosis is made, the search for metastatic disease is determined by the risk outlined by staging, but may include CAT scans, MRI or PET scans. Treatment of the primary lesion usually includes surgical excision.

The general surgeons at Paoli Hospital treat many patients with primary melanoma. Wide local excision, sentinel lymph node mapping and biopsy when

indicated by lesion thickness and other high risk characteristics are the standard of care. Plastic surgical techniques are utilized for closure of the wound when the resection is large.

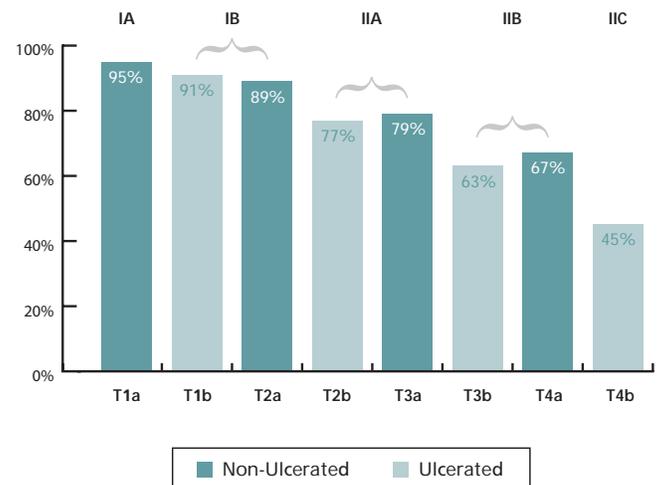
The management of metastatic melanoma can include surgical resection of solitary lesions especially if more than one year has elapsed since the initial diagnosis. Most patients, however, will require systemic therapy which has included interferon, interleukin-2 and chemotherapy with only modest success. Recently, a phase II trial of DTIC chemotherapy with anti-sense DNA to the Bcl-2 oncogene has been completed that show an improved response rate and progression-free survival in the patients receiving the anti-sense DNA. The NCI has recently demonstrated that the addition of autologous tumor reactive lymphocytes to chemotherapy resulted in dramatic responses in heavily pretreated patients. As we learn more about the biology of this cancer, new ways to attack the disease become available.

Scott Kripke, MD
General Surgery

Table 1

TX	Primary tumor cannot be assessed (e.g., shave biopsy or regressed melanoma)
T0	No evidence of primary tumor
Tis	Melanoma <i>in situ</i>
T1	Melanoma ≤ 1.0 mm with or without ulceration
T1a	Melanoma ≤ 1.0 mm in thickness and level II or III, no ulceration
T1b	Melanoma ≤ 1.0 mm in thickness and level IV or V, or with ulceration
T2	Melanoma 1.01-2.0 mm in thickness with or without ulceration
T2a	Melanoma 1.01-2.0 mm in thickness, no ulceration
T2b	Melanoma 1.01-2.0 mm in thickness, with ulceration
T3	Melanoma 2.01-4.0 mm in thickness with or without ulceration
T3a	Melanoma 2.01-4.0 mm in thickness, no ulceration
T3b	Melanoma 2.01-4.0 mm in thickness, with ulceration
T4	Melanoma greater than 4.0 mm in thickness with or without ulceration
T4a	Melanoma >4.0 mm in thickness, no ulceration
T4b	Melanoma >4.0 mm in thickness, with ulceration

Five Year Survival
Figure 1



Oncology Data Services

FY 2005 continued to bring new challenges in the war on cancer for the cancer program at Paoli Hospital and Oncology Data Services. Formerly known as Cancer Registry, Oncology Data Services (ODS) accessioned 640 new cancer cases in 2005. Of these, 589 are analytic (diagnosed and/or treated at Paoli) and 51 non-analytic (diagnosed and/or treated elsewhere and receiving subsequent care at Paoli). This represents continual growth for both the inpatient and outpatient services offered through our comprehensive cancer program.

The incidence of cancer as seen at Paoli Hospital is referenced by age, gender, stage of disease and treatment. Thirty-one percent of male patients seen at Paoli Hospital were diagnosed between ages 70-79 with 25 percent of female patients between ages 60-69. Thirty-four percent of female patients presented with Stage I disease, compared to 22 percent of male patients with Stage II. Thirty-five percent of patients receive surgery as first line treatment combined with chemotherapy or radiation treatment as compared to 29 percent receiving other types of treatment and 12 percent receiving no treatment.

As an approved program of the American College of Surgeons (ACoS) Commission on Cancer (COC), Oncology Data Services follows over 10,000 patients annually with a reference date of 1989. Lifetime follow-up is required for CoC approval and ensures continuity of patient care.

The professional staff of the Oncology Data Services department manages and analyzes clinical information and is the first line in providing data for national statistics for the purpose of reporting health information for research, quality improvement, cancer prevention and surveillance and monitoring patient outcomes. As required by the Pennsylvania Cancer Control, Prevention and Research Act P. L. 1241 #224, Oncology Data Specialists monitor compliance of Department of Health reporting requirements and national accreditation standards. All staff members are certified professionals in oncology data management and must continually update their professional skills to meet the challenging demands of reporting quality data statistics.

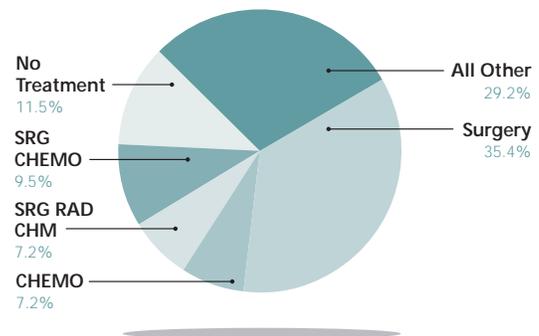
Cancer incidence is reported to the Pennsylvania Cancer Registry of the Department of Health, the National Cancer Database (NCDB) for comparative analysis with similar facilities and national organizations, the Facility Information and Profile System (FIPS) of the American Cancer Society for trends in cancer research and the Cancer Information Reference File (CIRF) for comparative analysis of Medical Registry Systems (MRS) users.

Oncology data is also shared with other healthcare facilities for continuity of patient care. In 2005, Oncology Data Services received over 50 requests for patient data.

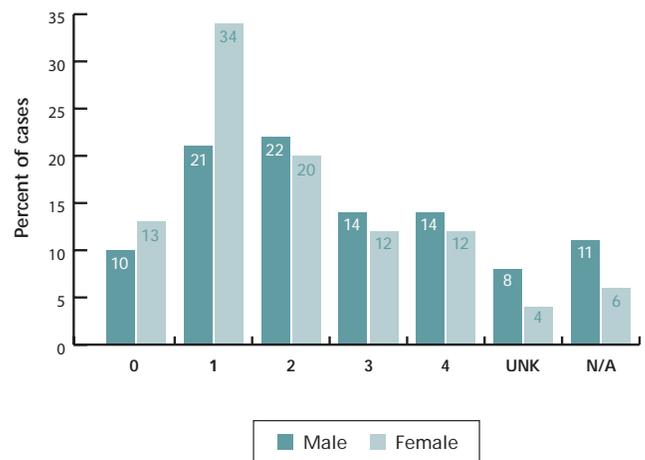
It is with great determination that we rise to the challenges of our profession and are proud to be a part of a comprehensive oncology care team.

Deborah A. Dickerson, RHIT, CTR
Main Line Health, Oncology Data Supervisor

Initial Therapy



Male vs. Female by Best AJCC Stage



Site Distribution Report – AJCC Staging for Paoli Hospital

Study Group: 2005 Analytic Cases (newly diagnosed)		AJCC Stage										% PH Database	ACS Est. Figures*
Primary Site	Cases	0	1	2	3	4	Unk	N/A	B/B**	Male	Female		
Bladder	27	17	4	3	1	2	0	0	0	24	3		
Brain/CNS	15	0	0	0	0	0	0	6	9	8	7		
Breast	146	35	54	36	11	7	3	0	0	0	146	25%	15%
Cervix	4	2	0	0	0	2	0	0	0	0	4		
Colon/Rectum	70	5	24	26	11	3	0	0	1	34	36	12%	11%
Con & Soft Tissue	4	0	1	1	0	0	1	1	0	3	1		
Esophagus	8	0	4	0	1	3	0	0	0	7	1		
Kidney	19	0	10	1	5	3	0	0	0	14	5		
Larynx	3	1	0	2	0	0	0	0	0	1	2		
Leukemia/Hematopoietic	4	0	0	0	0	0	0	4	0	3	1		
Lip & Oral Cavity	4	0	1	1	0	1	1	0	0	3	1		
Lung	81	0	23	9	24	21	3	1	0	41	40	14%	13%
Lymphoma	23	0	6	5	4	8	0	0	0	9	14		
Melanoma	46	7	24	2	4	0	9	0	0	26	20	8%	4%
Other	20	0	2	3	3	2	0	10	0	8	12		
Ovary	10	0	3	1	1	5	0	0	0	0	10		
Pancreas	17	0	1	5	1	10	0	0	0	8	9		
Prostate	39	0	0	29	4	4	2	0	0	39	0	8%	17%
Stomach	9	0	2	0	3	4	0	0	0	6	3		
Testis	7	0	5	1	1	0	0	0	0	7	0		
Thyroid	9	0	5	2	1	1	0	0	0	6	3		
Unknown Primary	9	0	0	0	0	0	0	9	0	6	3		
Uterus	15	0	9	1	2	1	0	2	0	0	15		
Total	589	67	178	128	77	77	19	33	10	253	336	66%	60%

The most frequent cancer sites for 2005 are highlighted in the above table and represent the percentage of cancer incidence seen at Paoli Hospital as comparable to the American Cancer Society's national estimates. They are in descending order: Breast, Lung, Colorectal, Melanoma, and Prostate.

In addition, 51 cases were diagnosed in a staff physician's office or elsewhere and received ongoing treatment at Paoli Hospital for a total of 640 newly diagnosed cases in 2005.

* Cancer Facts and Figures 2005, American Cancer Society ** BB=Benign/Borderline

Paoli Hospital Cancer Committee – 2005/2006

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Oncology Data Supervisor

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Fox Chase Cancer Center Partners

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Pulmonology

Radiation Oncology

Oncology Referral Coordinator

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Director, Quality Life Services

CCOP Administrator

Medical Oncology

Chief Radiation Oncology Therapist

Clinical Research Nurse (CCOP)

Regional Dir., Community Services

General Surgery

Manager, Paoli Cancer Center

Radiology



Breast Health Center

610-648-1315

The Holloway Breast Health Center brings together state-of-the-art technology, clinical expertise and personalized care in a soothing, spa-like environment. The Center features individualized attention from our staff and a dedicated Breast Care Coordinator, as well as the most current diagnostic imaging and treatment including digital mammography with computer aided detection and minimally invasive biopsy procedures. The hallmark of our Center is our commitment to provide accurate and timely information to help women make informed decisions.

Community Clinical Oncology Program (CCOP)

610-648-1637

The Main Line Health CCOP is affiliated with six nationally and internationally known research organizations: M.D. Anderson; ECOG; NSABP; RTOG; GOG; Fox Chase Cancer Center Research Base. Through these organizations, Paoli Hospital offers innovative cancer prevention trials as well as state-of-the-art cancer treatment trials to our community.

Community Education and Screening

610-648-1270

Provides a wide variety of education programs and community screenings for breast, skin, prostate and colorectal cancers to inform and educate the community about cancer prevention.

Fox Chase Cancer Center Partners

215-728-3831

Fox Chase Cancer Center Partners is a select group of community-based hospitals in Pennsylvania and New Jersey that demonstrate outstanding cancer-care standards and have an infrastructure in place to support clinical trials. Through the Fox Chase Cancer Center Partners program, patients have access to more clinical trials in the community, including Phase III drug studies and Phase II trials and allow timely translation of cancer research findings to ensure patients have access to the latest advance cancer care, treatment and research.

Fox Chase Referral Line

610-648-1140

An on-staff coordinator assists patients and their families through the referral process if a second opinion or treatment is needed at Fox Chase Cancer Center.

Medical Oncology

610-648-1600

The Medical Oncology suite of the Cancer Center at Paoli Hospital is staffed by board-certified physicians and nurses who work closely with the referring physician, the family, and other members of the treatment team to provide each patient with individualized care. Outpatient chemotherapy and other medical modalities are supervised in a supportive and nurturing environment.

Our Senior Oncology Program is specifically designed to care for patients over 65 with unique needs. Paoli medical oncologists are actively involved in the investigation of new therapeutic medical treatments for various cancers.

Oncology Data Services

610-648-1455

Oncology Data Services is a comprehensive data management system for the collection of malignant or neoplastic disease. Oncology Data Specialists capture a complete clinical and demographic summary of the patient's history, diagnosis, treatment, health status and provide lifetime follow-up of patients diagnosed with cancer.

Main Line Health

Cancer Center Paoli Hospital

Fox Chase Cancer Center Partner

Pain and Symptom Management

610-648-1560

Oncology-certified nurses and pharmacists, in coordination with the cancer treatment team, help patients manage symptoms such as pain, fatigue and nausea.

Radiation Oncology

610-648-1600

Our advanced Radiation Oncology Suite employs the latest in treatment technology, including Intensity Modulated Radiation Therapy (IMRT), Brachytherapy, and Radioimmunotherapy. We are constantly evaluating newer modalities such as Stereotactic Radiosurgery. A team of board certified physicians and staff offer each patient the latest in treatment technology as well as individualized care and support.

Risk Assessment and Genetic Testing Program

610-648-1664

The Paoli Cancer Risk Assessment and Genetics program is designed to provide individualized cancer risk assessment services to individuals and families at increased risk of cancer due to family or personal history. This program is designed to evaluate an individual's lifetime risk for breast, ovarian, and colorectal cancer using personal, medical, familial and/or genetic factors.

Support Services

610-648-1253

Paoli Hospital has a licensed oncology Social Worker who helps patients and families adjust to the many challenges involved with a cancer diagnosis. Counseling is available to help with community resource referrals, coping with illness, family and relationship concerns and financial or insurance needs. Paoli Hospital also offers several support groups through our affiliation with the American Cancer Society: Look Good, Feel Better; CanSurmount Program; Man to Man Prostate Group; Family & Caregiver Group; Women Journaling through Cancer.

Additional support services include: Nutritional Services (610-648-1179), Rehabilitation Services and Lymphedema Management Program (610-648-1063) & Free Wig Program (610-648-1600).

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1-866-CALL-MLH

www.mainlinehealth.org