



MERCY

HOSPITAL Mt. Airy

MERCY HEALTH PARTNERS
OF SOUTHWEST OHIO CANCER PROGRAM



ANNUAL REPORT
AND OUTCOME STUDY ON
MELANOMA

2008

2007-2008 CANCER COMMITTEE MERCY HOSPITAL MT. AIRY

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2007 CANCER PROGRAM SUMMARY

Mercy Hospital Mt. Airy offers the highest quality of cancer care as evidenced by the “approval with commendation” status of our cancer program, received by the Commission on Cancer, American College of Surgeons in 2005. Achieving this level of compliance with the required standards of care set by the CoC, assures our patients that they will receive the best of care from diagnosis, through the treatment period and continuing to end of life.

In addition to our wide range of diagnostic and treatment services, our hospital offers many programs to provide assistance to both our patients and their families as they cope with a diagnosis of cancer. Our support services include nutritional support, spiritual support, rehabilitation, palliative care, educational programs for our patients and the community, information on access to clinical trials and cancer support groups and programs, many of which are provided through participation with the American Cancer Society.

Our cancer program, under the leadership of our cancer committee, continues to strive for excellence by setting annual goals to improve and enhance our services and meet the needs of the area we serve.

The Cancer Program implemented many patient care improvements, sponsored many patient, community and staff educational offerings and improved many of our services last year. Among the 2007 Cancer Program Achievements for Mt. Airy are:

2007 Cancer Program Achievements Mercy Hospital Mt. Airy

- Improved the quality of cancer conferences by installing & utilizing the PACS for case presentation
- Developed a brachytherapy radiation safety competency exam and a resource binder for infrequently utilized therapies
- Provided various screening and prevention programs, participated in local Health Fairs
- Enhanced the clinical performance and oncology skills of our nurses by hiring a UBE
- Increased patient services by purchasing PET scanner
- Evaluated nutritional needs and provided support to all Head & Neck cancer patients

CANCER REGISTRY

The Cancer Registry is a vital component of the cancer program, providing data for programmatic and administrative planning, research, and for monitoring patient outcomes. Data are collected according to the current standards of the Commission on Cancer to create a detailed cancer-focused record for all reportable tumors diagnosed and/or treated at our hospital. Each record entered into the database contains information on the diagnosis, extent of disease, treatment received, recurrence of disease and lifetime follow-up for each patient. Aggregate data are analyzed and published without patient identifiers to protect the confidentiality of each patient entered into the cancer database according to Ohio state laws and HIPAA regulations.

A Cancer Registrar performs the collection, interpretation, analysis and reporting of cancer data. The National Cancer Registrars Association defines cancer registrars as data management experts who collect and report cancer statistics for various healthcare agencies. Registrars work closely with physicians, administrators, researchers, and health care planners to provide support for cancer program development, ensure compliance with reporting standards, and serve as a valuable resource for cancer information with the ultimate goal of preventing and controlling cancer. The cancer registrar is involved in managing and analyzing clinical cancer information for the purpose of education, research, and outcome measurement.

The cancer programs at Mercy Health Partners make accurate data collection a priority. The cancer registry at Mercy Mt. Airy is a community-based hospital registry, staffed by a Certified Tumor Registrar (CTR). Certification is maintained by continuing education in cancer data collection standards, cancer program requirements and in the diagnosis and treatment of cancer.

Registry data is submitted 100% error free to the National Cancer Data Base (NCDB) annually as a requirement of the Commission on Cancer for all approved cancer programs. Submission of data to the National Cancer Database provides feedback to assess the quality of patient care. This feedback enables cancer programs to compare treatment and outcomes with the regional, state and national patterns. Major differences between the facility data and the national data are reviewed in an effort to identify the reasons for these differences.

Cancer data is also submitted to the Ohio Cancer Incidence Surveillance System (OCISS). All reported data are used to support research, track trends, initiate epidemiologic studies, generate journal articles and provide data for allocation of services. The data are analyzed to identify opportunities for community cancer awareness and screening where higher stages (III-IV) of cancers are seen. This data also provides a means of identifying possible cancer clusters within the state.

Registry data are utilized at Cancer Conferences to facilitate discussion of treatment, AJCC stage, follow-up and survival of various cancers throughout the year.

Cancer Conferences

Mercy Hospital Mt Airy offers prospective, patient-oriented and multidisciplinary Cancer Conferences, which provide free consultative services to our patients and education to the medical and hospital staff. Medical Oncology, Radiation Oncology, Diagnostic Radiology, Pathology and Surgery specialties are available at the conferences to discuss possible treatment options for the types of cancers presented at the conferences. Patient identities are kept confidential

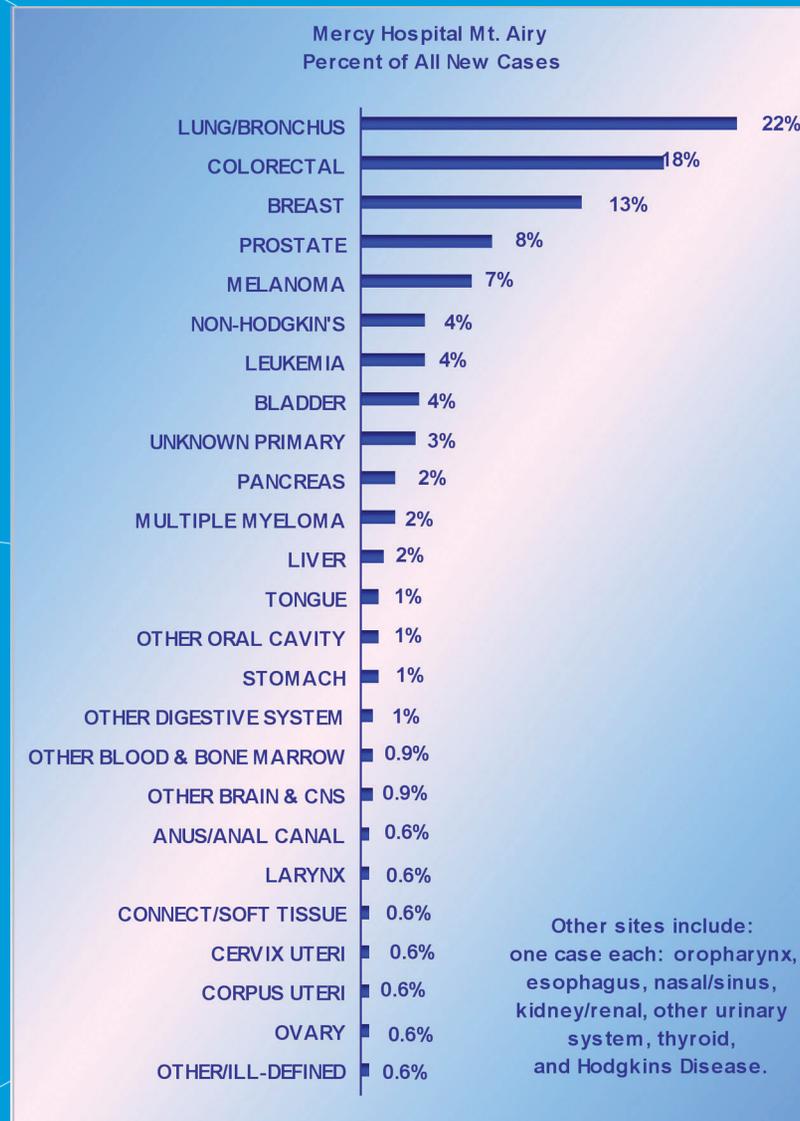
Cancer Conferences are held monthly on the first Friday of each month at 12:00 noon in the 2nd floor Classroom ABCD and are approved by the Ohio State Medical Association for one Category 1 CME credit hour. Lunch is provided.

Physicians may contact the Cancer Registry (853-5130) or the Medical Staff Services office (853-5008) for more information, to receive a current meeting schedule or to schedule a patient to be presented at a Cancer Conference.

2007 CANCER DATA SUMMARY AND COMPARISONS

The total number of analytic cases in the Mt. Airy registry since the 1997 reference date is 4,059 cases. During 2007, 333 analytic cases were accessioned into the registry database, with an additional 14 non-analytic (recurrent cancer) cases accessioned into the database. The statistics contained in this report represent only analytic (newly diagnosed) cases.

Site Distribution



Top Cancer Sites In 2007

The most frequently seen cancers at our hospital in 2007 were lung (22 percent), colorectal (18 percent), breast (13 percent), prostate (8 percent) and melanoma (7 percent). Our incidence for lung and colorectal cancers is higher than national and Ohio incidence. Our higher percentage of lung cancers is likely related to a high number of smokers in our area. Our higher colorectal incidence is likely due to having a large elderly population. The percentage of patients seen at our hospital for the diagnosis and/or treatment of prostate cancer remains lower than state and national. This does not indicate a lower incidence of prostate cancer in our community but rather a reflection of treatment trends. Most of our prostate cancer patients are seen for treatment by cryoprostectomy. More prostate cancer patients are being treated with robotic prostatectomies which, along with radiation and brachytherapy, are not available at our hospital.

Our incidence of melanomas is slightly higher than national and Ohio incidence. This may be attributed to our increased efforts in skin cancer awareness and promotion of early detection and screening. Other top cancer sites compare favorably with the estimated 2007 state and national data.

Gender Comparisons

Review of the distribution of our 2007 cases by gender revealed that 149 of the cases (45 percent) were males and 184 (55 percent) were females.

The most frequently seen cancer sites in women were breast, lung, and colorectal. At our hospital, the most frequently seen male cancer sites were lung, colorectal, and prostate. As noted above, our incidence of lung and colorectal cancers is higher than national incidence.

Our higher percentages of lung and colorectal cancer and melanoma are likely due to the large number of smokers in our state, our elderly service area and the influence of our community outreach activities promoting skin cancer screening.

The high incidence of lung cancers in our service area will likely not experience a decrease until we are able to assess the long-term impact of national and local efforts to promote smoking cessation and the reduction other risk factors.

Top Cancer Sites for 2007			
Primary Site	US	OH	MHMA
Lung & Bronchus	15%	17%	22%
Prostate	15%	14%	8%
Breast	12%	11%	13%
Colorectal	11%	11%	18%
Bladder	5%	5%	4%
NHL	4%	4%	4%
Melanoma	4%	4%	7%

Estimated Figures for US/Ohio
American Cancer Society, Facts & Figures 2007

2007 Top Cancer Sites by Gender Mercy Mt. Airy			
 Male		 Female	
Prostate		Breast	
U.S. 29%	MHMA 17%	U.S. 26%	MHMA 23%
Lung & Bronchus		Lung & Bronchus	
U.S. 15%	MHMA 25%	U.S. 15%	MHMA 20%
Colon & Rectum		Colon & Rectum	
U.S. 10%	MHMA 17%	U.S. 11%	MHMA 18%
Urinary Bladder		Uterine Corpus	
U.S. 7%	MHMA 7%	U.S. 6%	MHMA 1%
Melanoma of the Skin		Non-Hodgkin lymphoma	
U.S. 4%	MHMA 10%	U.S. 4%	MHMA 4%
Non-Hodgkin lymphoma		Melanoma of the Skin	
U.S. 4%	MHMA 3%	U.S. 4%	MHMA 4%

American Cancer Society, Facts and Figures, 2007

MELANOMA OUTCOME STUDY

Melanoma Incidence and Mortality Trends

Incidence – Skin cancers account for at least half of all cancers but less than 5% of skin cancers are melanomas. Incidence rates increase with age, however, melanoma is not uncommon among those younger than 30 and is one of the more common cancers in adolescents and young adults. Males are slightly more likely (56%) than females and Caucasians are at least ten times more likely than African Americans to be diagnosed with melanoma. It is estimated that approximately 62,480 new cases of melanoma will be diagnosed in 2008, according to the American Cancer Society (ACS).

In the 1970's, melanoma incidence began to rise about 6% per year, slowing to 3% per year in the 1980's and 1990's. Between 1995-2004, melanoma continued to steadily rise at about 1% per year. This is in sharp contrast to overall cancer rates that declined steadily by approximately 0.6% per year. During this same period, a 50% increase was seen in melanoma among young women (15-30) and in the 60 years and older age group. Increased rates have been attributed to the thinning of the ozone layer and more exposure to Ultraviolet (UV) radiation, an increase in leisure time and outdoor activities, and the popularity of tanning beds.

Mortality – Melanoma is the most serious skin cancer and is the cause of most skin cancer deaths. The ACS estimates that in 2008, about 8,420 people will die from melanoma. The death rate for those over 50 years of age stabilized in the 1990's and is dropping for those under 50.

Melanoma Incidence Comparisons

2007 State Incidence Comparisons

Colorado, Connecticut, Idaho, and Utah lead the nation with melanoma incidence at 6%. Other states with a high incidence (5%) include Arizona, California, Hawaii, Kentucky, Maine, Massachusetts, New Hampshire, New Mexico, North Carolina, Oregon, Rhode Island, and Washington. Melanoma incidence in the state of Ohio is estimated at 4%.

The District of Columbia ranks lowest in our nation for melanoma incidence (2%).

National, Ohio and Hospital Incidence Comparisons

Nationally, it is estimated that melanoma will account for about 4% of the cancers diagnosed in 2007. This mirrors the incidence for Ohio and at our hospital.

Risk Factors

- Ultraviolet (UV) light exposure-UV radiation causes damage to genes in the skin cells. Sources include sunlight and tanning beds/booths.
- Gender-men are more at risk, likely due to more sun exposure (primarily occupational-related exposure)
- Moles-multiple or atypical
- Age-risk increases with age, but is common in younger people
- Race-whites are more than 10 times more at risk than blacks
- Family or personal history
- Fair complexion-natural blondes and red-heads and people with freckles have greater risk
- Xeroderma pigmentosum- a rare inherited condition, increases risk for all skin cancers
- Immune suppression
- Sunburns, especially severe childhood sunburns

Prevention

Most skin cancers, including melanoma, can be prevented by protecting your skin and limiting exposure to the sun. The ACS recommends:

- Limit or avoid ultraviolet exposure during the midday hours (10 am to 4 pm).
- When outdoors, protect your skin; use the “Slip, Slap, Slop” method:
- Wear protective clothing (Slip)
- Wear a hat (Slap)
- Use sunscreen with a sun protection factor (SPF) of 15 or higher (Slop)
- Wear sunglasses
- Seek shade
- Protect children from severe sunburns
- Avoid tanning beds and sun lamps

Screening and Early Detection

The best way to detect skin cancer early is to recognize changes in skin growths or the appearance of new growths. Adults should examine their skin regularly. The American Cancer Society recommends thorough monthly self-examinations of your skin. Any areas of concern should be reported to your physician. It is important to closely watch moles since some may develop into melanoma. Ask your physician annually to examine areas you cannot see. If you have a personal or family history of melanoma, your physician should examine your skin about 2-3 times a year.

Signs and Symptoms

Important warning signs of melanoma include changes in size, shape or color of a skin lesion or the appearance of a new growth on the skin. Changes that occur over a few days are generally harmless but changes that progress over a month or more should be evaluated by your physician. Melanomas often start as small, mole-like growths that increase in size and change color.

A simple ABCD rule outlines the warning signals of the most common type of melanoma. A is for asymmetry (one half of the mole does not match the other half); B is for border irregularity (the edges are ragged, notched, or blurred); C is for color (the pigmentation is not uniform, with variable degrees of tan, brown or black); D is for diameter greater than 6 millimeters (about the size of a pencil eraser).

Diagnostic Methods

Usually, the first step is for your doctor to take your medical history and perform a physical exam. Many dermatologists use dermatoscopy, using a special magnifying lens with a light source to see the area more clearly. Often this test can determine that the lesion is non-cancerous.

If the lesion is suspicious for cancer, or melanoma, an incisional or excisional biopsy of the area is performed. An incisional biopsy removes only a small piece of the lesion. A shave biopsy or punch biopsy may be performed to obtain a sample of the lesion if melanoma risk is low. An excisional biopsy removes the entire lesion and is the preferred method to diagnose melanoma. If enlarged lymph nodes are found on physical exam, a fine needle aspiration or excisional biopsy may be done to determine whether the melanoma has spread. The preferred method to determine whether the melanoma has spread to the lymph nodes is sentinel lymph node mapping and biopsy. In this procedure, a dye is injected into the lymph nodes that drain the area where the melanoma originated. If the melanoma has spread, these lymph nodes are usually the first place it would go. If the node is negative for melanoma, no more lymph nodes are removed because it is likely the melanoma has not spread. If the sentinel node is positive for melanoma, more nodes will be taken for microscopic exam.

Imaging tests such as chest x-ray, Computed Tomography (CT scan), Magnetic resonance imaging (MRI), Positron emission tomography (PET) and bone scan are used to determine if the melanoma has spread to lymph nodes or other organs. Very early stage melanoma that is unlikely to have spread may not require these tests.

Approximately 5% of melanomas present with metastatic disease but no identifiable primary lesion. The most common presentation for unknown primary melanoma is a lymph node mass. A few patients present with metastases to an internal organ without a known primary lesion. For this type of presentation, a complete work-up is needed to attempt to locate a primary site and to determine the extent of metastasis.

Examples of Benign and Malignant Moles

Normal Mole	Melanoma	Sign	Characteristic
		Asymmetry	when half of the mole does not match the other half
		Border	when the border (edges) of the mole are ragged or irregular
		Color	when the color of the mole varies throughout
		Diameter	if the mole's diameter is larger than a pencil's eraser

Photographs Used By Permission: National Cancer Institute

2000-2005 DATA COMPARISON

Factors that Determine Treatment and Prognosis

Age – Age at diagnosis comparison to the national showed that we saw more patients over age 70, accounting for 53% of our melanoma cases and only 36% nationally. This can be attributed to increased risk with age and our elderly service area. Nationally, 56% of the melanoma cases were male and 44% were female. A higher incidence of melanoma in males has been attributed to the types of occupations held traditionally by males, for example farming, outdoor construction and roadwork. At our hospital, 47% were male and 53% were female.

Tumor Characteristics - Several characteristics of primary melanoma tumors help predict the prognosis and risk of metastases.

- Tumor thickness (Breslow depth) is the strongest predictive characteristic for recurrence and is the most important factor in determining patient management. Tumor thickness is associated with poor prognosis, and forms the primary basis for tumor staging.
- Levels of invasion, based on the dermal layers of the skin, are known as Clark's levels and are also associated with outcomes

Clinical factors - such as anatomic site, ulceration, and gender are also prognostic factors for survival.

- Extremity melanomas generally have a better prognosis than those on the head and neck or trunk. However, distal extremity lesions, (foot and hand) have prognoses similar to primaries of the trunk.
- Mucosal and mucocutaneous melanomas have an overall poor prognosis.
- Ulceration is a strong prognostic factor and is included in the AJCC staging system.
- Many studies have shown that melanoma survival rates for women are somewhat better than for men. The reasons for gender-related differences in survival are unknown.

Stage at diagnosis – Melanoma staging is based on tumor thickness (T), nodal involvement (N) and distant metastasis (M).

In comparing our stages at diagnosis, our percentage for stages 0, 1, 3, 4 and unknown were very comparable to national stage at presentation.

Although we had a considerably higher percentage of stage 2 patients than seen nationally, our presentation at local stages (0 to 2) compared favorably (69%) to national ((73%). Advanced and late stages also compared well to the U.S.

Age at Diagnosis Comparison 2000-2005 Melanoma of the Skin National vs Mercy Mt Airy		
AGE AT DIAGNOSIS	U.S.	MHMA
Pediatric	0.1%	0%
16-29	3.5%	0%
30-39	8%	2%
40-49	15%	16%
50-59	19%	15%
60-69	19%	15%
70-79	21%	31%
80-89	13%	20%
90+	2%	2%
Source: National Cancer Database		

STAGE	2000-2005 Melanoma		2000-2005 Melanoma	
	U.S.		MHMA	
	#	%	#	%
0	5,435	23%	11	25%
1	8,928	38%	15	34%
2	2,811	12%	9	20%
3	1,827	8%	2	5%
4	1,005	4%	2	5%
UNK	3,443	15%	5	11%
TOTAL	23,449		44	

Histology Distribution

Comparison of our histologies to the United States is similar. We had slightly more melanoma NOS and superficial spreading melanomas

Mercy Hospital Mt. Airy				
Melanoma Diagnosed 2000-2005				
Histology	U.S.		MHMA	
	#	%	#	%
Malignant Melanoma, NOS	14,504	62%	31	56%
Nodular Melanoma	1,439	6%	5	9%
Halo Nevus	1	0%	0	0%
Amelanotic Melanoma	3	0%	0	0%
Melanoma in Hutchinson's Melanotic Freckle	2,191	9%	4	7%
Superficial Spreading Melanoma	4,370	19%	13	24%
Acral Lentiginous Melanoma, Malignant	2	0%	0	0%
Spindle Cell Melanoma, NOS	1	0%	0	0%
Other Specified Types	938	4%	2	4%
Total	23,449		55	

Treatment

Removal and microscopic examination of all suspicious skin lesions is essential. For malignant melanoma, the primary growth must be adequately excised. Depending on the extent of local growth, one or more nearby lymph nodes may be removed. Melanomas with deep invasion or that have spread to lymph nodes may be treated with immunotherapy or radiation therapy. Advanced cases of melanoma are treated with palliative surgery, immunotherapy, and/or chemotherapy.

Surgery – The primary treatment for melanoma is surgery and is usually considered to be curative for early stage melanomas. Several types of surgery are used, depending on tumor thickness and location of tumor on the body. Adequate surgical margins (the normal, healthy skin around the edges of the tumor) are considered necessary for a good prognosis.

- Simple excision - can be used as a cure for thin melanomas
- Re-excision after biopsy - provides adequate margins for thicker lesions (see table below)
- Mohs surgery - may be used when smaller margins are needed to avoid disfigurement, for example, facial lesions
- Amputation - used only for deep melanomas involving a finger or toe

Recommended Surgical Margins

Margin size is based on tumor thickness. Thicker lesions require deeper margins.

Tumor thickness	Recommended margins
In situ	0.5 cm
Less than 1 mm	1 cm
1 to 2 mm	1 to 2 cm
2 to 4 mm	2 cm
Over 4 mm	At least 2 cm

ADJUVANT THERAPIES

Chemotherapy

Although chemotherapy is usually not as effective in melanoma as in some other types of cancer, it may relieve symptoms or extend survival for some patients. There are several types of chemotherapy available to treat advanced melanoma.

- Dacarbazine may be used alone or in combination with other chemotherapy drugs such as carmustine and cisplatin. These 3 drugs combined with tamoxifen (a hormonal therapy drug) is called the “Dartmouth regimen.”
- Paclitaxel alone or in combination with cisplatin or carboplatin
- Temodar, which can be given in a pill, either by itself or combined with interferon
- Cisplatin, vinblastine and dacarbazine in combination (called the “CVD regimen”)

Immunotherapy

Immunotherapy works by enhancing and encouraging the body’s immune system to more effectively recognize and destroy cancer cells. Cytokines are naturally produced proteins that boost the immune system in a general way. Two man-made versions of cytokines, interferon-alpha and interleukin-2, can be used to treat advanced melanoma (stage 3 and 4).

- Biochemotherapy or chemoimmunotherapy
 - Interferon-alpha and interleukin-2 can also be combined with chemotherapy to treat stage 4 melanoma. Combining chemotherapy drugs with 1 or more immunotherapy drug may be more effective than a single chemotherapy drug alone, but may not improve survival.
- Melanoma vaccines
 - Melanoma vaccines are directed specifically at melanoma cells and are experimental, unproven therapies. Unlike vaccines that are meant to prevent infections, these vaccines are meant to treat an existing disease. In an attempt to stimulate the body’s immune system to destroy other melanoma cells in the body, killed melanoma cells or parts of cells (called antigens) can be injected into a patient as a vaccine. Usually, the cells or antigens are mixed with other substances that help stimulate the body’s immune system as a whole.
- Bacille Calmette-Guerin (BCG) vaccine
 - BCG, working like a cytokine, can be used to stimulate the entire immune system. Sometimes BCG is injected directly into tumors as treatment for stage 3 melanomas.
- Imiquimod cream
 - Imiquimod cream stimulates a local immune response and may be suitable treatment for very early stage melanomas (stage 0) of the face, when surgery might cause disfigurement. However, there is some disagreement among physicians over using this cream for melanomas.

Radiation

Radiation is usually not used to treat the primary tumor. However, it can be used as adjuvant therapy to treat lymph node areas, especially if nodal metastasis is present or to treat distant metastatic sites. Patients with recurrent melanoma may receive radiation to the primary skin area. The primary role of radiation therapy for melanoma is to provide palliation (relief from symptoms) to metastatic areas, such as the brain or bone.

OTHER TREATMENT TYPES

Palliative Treatment

When melanoma is diagnosed in late stage the focus of treatment may be palliative. Palliative treatment can include surgery, chemotherapy, radiation, immunotherapy, a combination of these, or simply consist of comfort measures alone. Comfort measures may also be appropriate for patients who are not candidates for treatment due to age, comorbidity and high-risk. The Palliative Care programs at Mercy Health Partners provide a wide range of services to our patients that cover the spectrum of physical, emotional, and practical needs.

Clinical Trials

Clinical trials for cancer treatment offer additional treatment options, including new drugs, new surgery or radiation therapy techniques, or even complementary or alternative medicines. Some trials study drugs that are already approved for one type of cancer to see if it works on a different type of cancer or works better when given a certain way or when combined with other treatments. Clinical trials provide access to treatment that is not otherwise available, and might be safer or more effective than current treatment options. When clinical trials show that a new treatment is better than the current treatment, the new treatment may become a standard treatment. All clinical trials are reviewed and approved by scientific panels to make sure they are ethical, safe, and at least as good as, and possibly better than, the standard and currently available treatments.

According to the American Cancer Society, the number one reason people give for not taking part in a clinical trial is that they didn't know the studies were an option for them. Before starting treatment, patients may want to think about taking part in a clinical trial. Ideally, the patient, family, and health care team should be involved in the decision on choosing the most appropriate cancer treatment.

Treatment Comparison to National Cancer Database

At Mercy Mt. Airy, 93% of the cutaneous melanomas were surgically resected. We had 20 stage 0 cases and all were treated with surgery only, compared to 96% in the U.S. We had 17 stage 1 patients and all were treated with surgery only, compared to 97% nationally. Treatment for these stages was appropriate and is comparable to the U.S.

Of our five (5) stage 2 cases, all were surgically resected with 100% receiving surgery only, compared to 91% nationally. Nationally, 4% of the stage 2 patients received surgery and immunotherapy (BRM), 3% other specified therapy and 2% had no first course of treatment. More of our stage 2 patients received surgery only than nationally. Taking into account the ages of the patients and the small number of patients in the stage group, our stage 2 patients were treated appropriately.

*'Other specified therapy' is a therapy or combination of therapies not included in the listed treatment types

We had seven (7) stage 3 cases. Four (57%) received surgery only (59% nationally). Two of our stage 3 patients (29%) received surgery and immunotherapy compared to 17% nationally and one (1) patient (14%) received no treatment, compared to 5% nationally. 18% of the stage 3 patients in the U.S. were treated with other specified therapy. A higher percentage of our patients received surgery and immunotherapy than nationally. These differences are likely the result of our having small numbers in the study group. Treatment for our stage 3 patients was appropriate.

We had only three (3) stage 4 cases. One patient (33%) had surgery only, one received other specified therapy and one received no treatment. All of these patients were treated appropriately for their ages and extent of disease. Nationally, 20% of the stage 4 patients were treated with surgery only. 48% of the stage 4 patients were treated with "other specified therapy", and 29% received no treatment. Again, the difference in treatment patterns can be attributed to our much smaller number of patients in the study.

Of our three (3) patients with unknown stage, 2 (67%) were treated with surgery only, compared to 82% nationally. The other patient (33%) received other specified treatment (6% nationally).

Summary: Our treatment for all stages was appropriate. In comparison to national treatment, our patients were treated similarly, given the smaller numbers.

Cutaneous Melanoma- Diagnosed 2000-2005												
Treatment by Stage Comparison - NCDB vs Mercy Mt. Airy												
Treatment Type	Stage at Diagnosis											
	NCDB	MHMA	NCDB	MHMA	NCDB	MHMA	NCDB	MHMA	NCDB	MHMA	NCDB	MHMA
	Stage 0	Stage 0	Stage 1	Stage 1	Stage 2	Stage 2	Stage 3	Stage 3	Stage 4	Stage 4	Stage Unknown	Stage Unknown
Surgery Only	96%	100%	97%	100%	91%	100%	59%	57%	20%	33%	82%	67%
Radiation Only	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.1%	0%	0.0%	0%
Surgery and Radiation	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.0%	0%	0.0%	0%
Surgery and Chemotherapy	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.0%	0%	0.0%	0%
Chemotherapy Only	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.1%	0%	0.0%	0%
Surgery, Radiation and Chemotherapy	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.0%	0%	0.0%	0%
Surgery and BRM	0.0%	0%	0.2%	0%	3.6%	0%	17%	29%	2.5%	0%	1.4%	0%
Surgery, Chemotherapy and BRM	0.0%	0%	0.0%	0%	0.0%	0%	0%	0%	0.0%	0%	0.0%	0%
Other Specified Therapy	0.3%	0%	0.3%	0%	3.3%	0%	18%	0%	48%	33%	6%	33%
No 1st Course Rx	3.3%	0%	2%	0%	2.1%	0%	5%	14%	29%	33%	10%	0%
% of Cases for Stage Group	23%	36%	38%	31%	12%	9%	8%	13%	4%	5%	15%	5%

Source: National Cancer Database

Melanoma Survival by Stage

Melanoma accounts for 4% of skin cancers but causes 80% of skin cancer deaths. It has been shown that tumor thickness, age, ulceration, gender, anatomical site, and period of primary diagnosis can help to predict a patient's overall survival. Deaths have continued to decline and this is attributed largely to early detection and treatment which are pivotal to melanoma survival. National data has shown that the five-year survival rate for melanoma has increased from 60% in the 1960s to 87% today. The five-year survival for regional disease which is when melanoma has spread to lymph nodes is 81%. The survival rate for distant disease is 12%.

Comparison of Mercy Hospital Mt. Airy to National Survival

Comparison of survival data for our patients diagnosed in 1998-2000 shows that our overall 5-year survival rates were lower than the national rates. In reviewing the ages at diagnosis and treatment for these cases, it was found that the patients were treated appropriately for the stage group. It was determined that the survival differences are due to our very small numbers.

National Cancer Database-Diagnosed 1998-2000

	Stage					
	0	1	2	3	4	Overall
At Diagnosis	100%	100%	100%	100%	100%	100%
Year 1	99%	99%	97%	91%	38%	95%
Year 2	97%	97%	92%	76%	22%	90%
Year 3	95%	95%	86%	64%	17%	85%
Year 4	92%	92%	81%	57%	13%	82%
Year 5	90%	90%	76%	51%	12%	79%

Mercy Hospital Mt. Airy - Diagnosed 1998-2000

	Stage					
	0	1	2	3	4	Overall
At Diagnosis	100%	100%	100%	100%	100%	100%
Year 1	67%	100%	100%	100%	50%	82%
Year 2	67%	100%	100%	100%	0%	76%
Year 3	67%	100%	100%	100%	0%	76%
Year 4	67%	75%	75%	50%	0%	57%
Year 5	67%	75%	75%	50%	0%	57%

Summary of Findings:

The analysis of our experience with melanoma revealed the following:

- **Incidence:** Melanoma incidence has been increasing nationally at about 1% per year. Our melanoma incidence has increased from 1% of our cases in 2003 to 4% in 2006. Our percentage of 2007 melanoma cases was 7%, 3% higher than our percentage in 2006. This increasing incidence reflects the recent national trend.
- **Prognosis:** Our stage at diagnosis is similar to that seen nationally. 79% (42) of our patients were diagnosed at localized stages. However, 10% (6 patients) were diagnosed at later stages (3 and 4).
- **Treatment:** In looking at our treatment, we found that for all stages, our patients were treated appropriately and met current NCCN treatment guidelines. Our treatment was also comparable to the nation, given our small numbers and elderly patient group.
- **Survival:** Our 5-year survival for patients diagnosed in 1998-2000 was dissimilar to national. In reviewing the ages at diagnosis and treatment for these cases, it was found that the patients were treated appropriately for the stage group. It was determined that the survival differences are due to our elderly service area and our very small numbers in the study group.

Recommendations:

- Increase prevention and early detection efforts
- Increase awareness of clinical trials

Community Outreach

The Mercy Hospital Mt. Airy Cancer Program, led by our Cancer Committee, is committed to making a difference in our community. We do this through several means, including promoting skin cancer awareness through participation in local Health Fairs, conducting Skin Cancer Awareness Month activities, increasing awareness of clinical trials and participation in or referral to American Cancer Society programs.

American Cancer Society Programs and Screening Guidelines

For information on American Cancer Society Programs and Screening Guidelines:

- Visit <http://www.cancer.org> or call 1-800-ACS-2345 (1-800-227-234)

Clinical Trial Information

For information on access to clinical trials in your area:

- Call the American Cancer Society, Clinical Trials Matching Service (a free, confidential program) at 1-800-303-5691 or visit www.cancer.org
- Visit the National Cancer Institute (NCI) website at: www.cancer.gov/clinicaltrials/search
- Visit the Coalition of Cancer Cooperative Groups at: www.cancertrialshelp.org